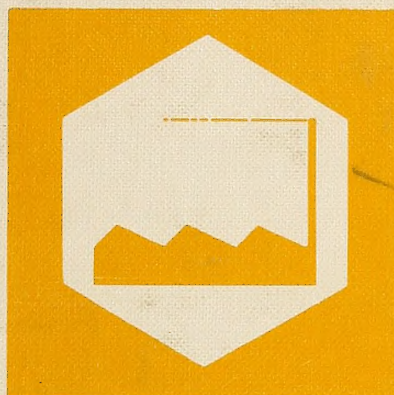


# 1963

## CENSUS OF MANUFACTURES



II

INDUSTRY  
STATISTICS

part 2

MAJOR GROUPS  
29 to 39 and 19



# CENSUS REGIONS AND GEOGRAPHIC DIVISIONS





# OF THE UNITED STATES









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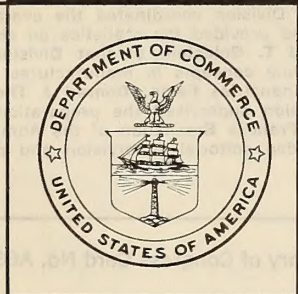
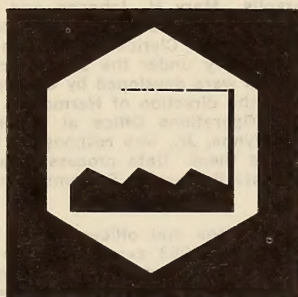
# 1963 CENSUS OF MANUFACTURES

Volume II

## Industry Statistics

part 2

Major Groups 29 to 39 and 19



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William H. Shaw, Asst. Secy., Economic Affairs  
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Director

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Deputy Director

### INDUSTRY DIVISION

Maxwell R. Conklin,  
Chief

## Acknowledgments

The 1963 Census of Manufactures was conducted under the direction of **Maxwell R. Conklin**, Chief, and **Owen C. Gretton**, Assistant Chief, of the Industry Division. Within the Industry Division, program responsibility along industry lines was shared by the following individuals who participated importantly in the entire census program: **Willis K. Jordan**, Foods, Textiles, and Apparel; **Cyril M. Wildes**, Lumber, Paper, and Chemicals; and **Paul F. Berard** and **Clarence H. Olsen**, Metals, Machinery, and Equipment. **Edward A. Robinson** was responsible for the concepts and definitions of establishment-type data, for preparation of the introductory text to the volumes, and for planning the content of the statistical tables in the area and subject reports.

**Louis J. Owen**, Assistant Chief for Production and Process Statistics, was responsible for the concepts followed in the product and materials inquiries and for the data on industrial water consumption and fuels and electric energy used. **Jack L. Ogus**, Assistant Chief for Statistical Methods, assisted by **Donald F. Clark**, was responsible for statistical methods and sampling techniques. **Elmer S. Biles** played an important role in developing the criteria for reviewing the tabulated data and supervised the review of the geographic statistics and much of the subject-volume materials for completeness and accuracy. **Frank A. Hanna**, a consultant to the Bureau of the Census, assisted in writing portions of the text.

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Professional personnel in the commodity areas of the Industry Division developed the report forms for the various industries, reviewed the tabulations, and prepared the industry texts that accompanied the data. The respective areas and the individuals in charge during the census were as follows: Foods, **John S. Berube** and **Charles A. Nicholls**; Textiles, **Robert J. Nealon**; Apparel, **Evelyn W. Colburn**; Lumber and Furniture, **Robert E. Bates**; Paper, Printing, and Publishing, **Lawrence J. LaMoure**; Chemicals, **Reese R. Morgan**; Nonmetallic Minerals, **Keith B. Willis**; Primary Metals and Intermediate Metal Products, **Malcolm E. Bernhardt**; Machinery, **Conrad J. Jacobs**; and Electrical Machinery and Transportation Equipment, **Bernard B. Bernsten**. The names of the supporting statisticians in the commodity areas who made significant contributions are shown in the acknowledgment statements appearing in the 80 industry reports published separately prior to their assembly into the Industry Volume.

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## Preface

This is one of a series of volumes presenting the final results of the 1963 Census of Manufactures. The quinquennial census for 1963 was a large-scale undertaking and its success depended upon important contributions from a large number of private and public individuals and organizations. An essential element in the census was the fine cooperation received from over 300,000 manufacturing establishments in completing the appropriate report forms.

The advice and counsel of trade associations, individual manufacturing companies, government agencies, and research organizations were most valuable in determining the content of the census reports, especially the product and materials inquiries. The Advisory Council on Federal Reports provided special assistance in determining the feasibility of collecting various types of data. Precensus exchanges of ideas with the Census advisory committees of the American Statistical Association, the American Economic Association, and the American Marketing Association contributed significantly to the planning phases of the census. Timely publicity was given the manufactures census by chambers of commerce, local newspapers, trade papers, and television and radio stations.



1963

## Census of Manufactures Publication Program

Final results of the 1963 Census of Manufactures are published in three volumes, each containing a specific type of data.

### VOLUME I. SUMMARY AND SUBJECT STATISTICS

In addition to a summary chapter presenting the basic data historically for industries and geographic areas, separate chapters present data on a subject basis. Chapter titles are as follows:

1. General Summary
2. Size of Establishments
3. Type of Organization
4. Manufacturers' Inventories
5. Expenditures for Plant and Equipment
6. Power Equipment in Manufacturing Industries
7. Fuels and Electric Energy
8. Selected Materials Consumed
9. Selected Metalworking Operations
10. Water Use in Manufacturing
11. Concentration Ratios in Manufacturing Industries

Three special reports are also included in this volume: Manufacturing Activity in Government Establishments, Shipments of Defense Oriented Industries, and Origin of Exports of Manufactured Products. Each of the chapters in this volume was previously published as a separate report (Series MC63(1)—, numbers 1 to 10. Chapter 11 was issued as a special report for the Senate Subcommittee on Anti-trust and Monopoly.)

### VOLUME II. INDUSTRY STATISTICS

This volume contains separate chapters for each of 80 groups of related industries which cover approximately 430 individual industries. Statistics are shown on detailed product shipments and materials consumption in terms of quantity and value, cost of fuels and electric energy, value added by manufacture, employment, payrolls, inventories, and capital expenditures. Selected statistics are included for earlier census years. This volume is published in two parts. Part 1 contains a general summary chapter and chapters for SIC Major Groups 20 to 28, as well as chapters for related industries within these major groups; Part 2 contains chapters for SIC Major Groups 29 to 39 and 19 as well as chapters for related industries within these major groups. A special report, Manufacturing Activity in Government

Establishments, is included in both parts of this volume. The 80 related-industry chapters were previously published as separate reports in series MC63(2)—, 19A to 39D.

### VOLUME III. AREA STATISTICS

This volume contains separate chapters for each State and the District of Columbia. The statistics include all-manufacturing totals for the State and its standard metropolitan statistical areas, counties, and cities with populations of 10,000 or more, with industry detail for the larger areas. The volume also includes a summary chapter presenting data for each of the nine geographic divisions and a special report, Manufacturing Activity in Government Establishments. Each State chapter was previously published as a separate report in Series MC63(3)—, 1 to 51.

### OTHER REPORTS

Two series of reports have been issued showing the number of manufacturing establishments in each of the approximately 430 manufacturing industries classified according to their employment size class and the State and county within which they are located. The first series places emphasis on the industry, showing data by location (State and county). Nine separate reports present data for 20 major industry groups. The second series places emphasis on the location showing data by industry. Nine reports—one for each of the nine geographic divisions of the United States—were published in this series. The series titles are as follows:

Location of Manufacturing Plants by Industry, County, and Employment Size (MC63(S)—3, numbers 1 to 9)

Location of Manufacturing Plants by County, Industry, and Employment Size (MC63(S)—4, numbers 1 to 9)

## The 1963 Census of Mineral Industries Publication Program

The 1963 Census of Mineral Industries was conducted jointly with the census of manufactures. This census was similar in scope and in publication program. Final results are published in two volumes, as follows:

Volume I. Summary and Industry Statistics, contains a summary chapter, 5 subject-type chapters, and 18 chapters showing related mineral industries.

Volume II. Area Statistics, contains separate chapters for each State (Delaware, Maryland, and the District of Columbia are combined).



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The chapters of this volume were published earlier as separate reports in the 1963 Census of Manufactures series MC63(2)-, 19A to 39D.

Data in this volume include all significant corrections uncovered after publication of the separate reports. The 1958 and other historical data include all significant corrections made since the latest publication of these figures.



# TABLE COLUMN HEADS: GENERAL SUMMARY TABLES

**TABLE 1. General Statistics for Operating Manufacturing Establishments:  
1963 and Earlier Years**

Year (Selected years, 1849 to 1963)	Establishments		Proprietors and partners (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Capital expend- itures, new (\$1,000)	Index of industrial production 1957-1959- 100
	Total (number)	With 20 employees or more (number)		Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)			

**TABLE 2. Manufacturing Employment: 1963 and 1958**

Code	Major industry group (2-digit major industry groups)	Year	All establishments		Operating manufacturing establishments		Administrative offices and auxiliaries	
			Employees (number)	Payroll (\$1,000)	Employees (number)	Payroll (\$1,000)	Employees (number)	Payroll (\$1,000)

**TABLE 3. General Statistics for Establishments, by Industry  
Groups and Industries: 1963 and 1958**

Code	Industry group and industry	1963								
		Companies (number)	Establishments		Proprietors and partners (number)	All employees		Production workers		Value added by manufacture, adjusted (\$1,000)
			Total (number)	With 20 employees or more (number)		Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)

1963--Continued								1958					Code
Value of shipments	Capital expenditures, new			Inventories end of--		Special-ization ratio	Cover-age ratio	All employees		Value added by manufacture, adjusted	Value of shipments	Capital expenditures, new	
	Total	Structures and additions to plant	Machinery and equipment	1963	1962			Total	Payroll				
(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(percent)	(percent)	(number)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	



# TABLE COLUMN HEADS: GENERAL SUMMARY TABLES--Continued

**TABLE 4. Selected Statistics on Central Administrative Offices and Auxiliaries, by Major Industry Groups of Establishments Serviced: 1963**

Code	Major industry group and central administrative offices and auxiliaries	Estab-lishments (number)	Employees (number)	Total payroll (\$1,000)	Code	Major industry group and central administrative offices and auxiliaries	Estab-lishments (number)	Employees (number)	Total payroll (\$1,000)
20	All industries, total.....	5,304	726,477	6,615,494	29	Petroleum and coal products--Con.			
	Central administrative offices.....	3,567	515,920	4,740,548		Storage (warehouse).....	20	264	1,585
	Research, development, or testing.....	551	160,348	1,504,696		All other functions.....	18	243	2,370
	Storage (warehouse).....	485	11,012	57,344	30	Rubber and plastics products, n.e.c.	72	11,757	106,739
	All other functions.....	701	39,197	312,906		Central administrative offices....	50	10,940	99,904
	Food and kindred products.....	1,066	71,496	596,779		Research, development, or testing.	3	723	(D)
	Central administrative offices....	625	60,397	518,842		Storage (warehouse).....	16	81	424
	Research, development, or testing.	40	4,369	35,017		All other functions.....	3	13	(D)
	Storage (warehouse).....	113	2,149	12,097	31	Leather and leather products.....	73	7,582	50,240
	All other functions.....	288	4,581	30,823		Central administrative offices....	51	6,434	44,901
						Research, development, or testing.	3	29	(D)

**TABLE 5. Detailed Statistics, by Industry Groups: 1963**

Item (See "Data Item Guide," page xiii, for items shown)	United States total	Food and kindred products (SIC 20)	Tobacco manu-factures (SIC 21)	Textile mill prod-ucts (SIC 22)	Apparel and related products (SIC 23)	Lumber and wood products (SIC 24)	Furniture and fixtures (SIC 25)
-------------------------------------------------------------	---------------------	------------------------------------	--------------------------------	---------------------------------	---------------------------------------	-----------------------------------	---------------------------------

**TABLE 6. Manufacturing Employment and Payroll for Geographic Areas: 1963, 1958, and 1954**

Geographic area (Data are shown for Divisions, States, and Standard Metropolitan Statistical Areas)	Year	All establishments		Operating manufacturing establishments		Administrative offices and auxiliaries	
		Employees (number)	Payroll (\$1,000)	Employees (number)	Payroll (\$1,000)	Employees (number)	Payroll (\$1,000)

**TABLE 7. General Statistics for Manufacturing Establishments by Geographic Areas: 1963 and Earlier Years**

Geographic area	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Capital expendi-tures, new (\$1,000)	Comparative employment indexes		
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages			Percent of U.S. employ-ment	Index of employ-ment change	U.S. index of employ-ment change
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)			(percent)	(1958=100)	(1958=100)
United States:												
1963.....	311,921	102,272	16,960,983	99,904,279	12,232,041	24,509,450	62,093,601	192,103,102	11,370,935	(X)	(X)	106
1958.....	303,387	97,563	16,025,219	78,348,893	11,681,143	22,679,219	49,605,180	141,540,618	9,543,528	(X)	(X)	100
1954.....	286,814	90,470	16,098,653	65,866,573	12,372,002	24,334,082	44,590,545	117,032,326	7,816,752	(X)	(X)	100
1947.....	240,807	(NA)	14,293,963	39,695,558	11,917,884	24,316,465	30,243,971	74,290,475	5,998,099	(X)	(X)	89
1939.....	173,802	(NA)	9,527,306	12,706,102	7,808,205	(NA)	8,997,515	24,487,304	(NA)	(X)	(X)	59
1929.....	206,663	(NA)	9,659,742	14,284,282	8,369,705	(NA)	10,884,919	30,591,435	(NA)	(X)	(X)	60
1919.....	270,231	(NA)	9,836,801	12,426,902	8,464,916	(NA)	9,664,009	23,841,624	(NA)	(X)	(X)	61
1909.....	264,810	(NA)	7,012,066	4,105,470	6,261,736	(NA)	3,205,213	8,160,075	(NA)	(X)	(X)	44
1899.....	204,754	(NA)	4,850,019	2,258,654	4,501,919	(NA)	1,892,574	4,646,981	(NA)	(X)	(X)	30
DIVISION AND STATE												



# TABLE COLUMN HEADS: 2-DIGIT MAJOR GROUPS

## TABLE 1. General Statistics: 1963 and Earlier Years

Year and item	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
<b>ALL MANUFACTURING ESTABLISHMENTS, TOTAL:</b>											
1963 . . . . .	38 597	14 549	1 714 607	9 233 931	1 098 116	2 228 013	5 159 376	21 825 516	16 784 435	68 466 487	1 249 245
1958 . . . . .	42 843	15 242	1 781 469	8 064 425	1 152 762	2 309 576	4 548 860	17 700 906	(NA)	59 785 310	1 021 204
1954 . . . . .	(NA)	(NA)	1 709 106	6 560 408	1 137 681	2 315 812	3 757 953	13 766 995	(NA)	(NA)	787 649
<b>ADMINISTRATIVE AND AUXILIARY UNITS:</b>											
1963 . . . . .	1 066	436	71 496	596 779	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1958 . . . . .	873	352	63 337	442 096	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1954 . . . . .	(NA)	(NA)	62 515	360 309	(X)	(X)	(X)	(X)	(X)	(X)	(X)
<b>OPERATING MANUFACTURING ESTABLISHMENTS:</b>											
1963 . . . . .	37 521	14 113	1 643 111	8 637 152	1 098 116	2 228 013	5 159 376	21 825 516	16 784 435	68 466 487	1 249 245
1958 . . . . .	41 970	14 890	1 719 132	7 622 329	1 152 762	2 309 576	4 548 860	17 700 906	(NA)	59 785 310	1 021 204
1954 . . . . .	42 373	13 648	1 646 591	6 200 099	1 137 681	2 315 812	3 757 953	13 766 995	(NA)	(NA)	787 649
<b>OPERATING MANUFACTURING ESTABLISHMENTS:</b>											
1962 . . . . .	(NA)	(NA)	1 682 697	8 592 490	1 119 225	2 287 220	5 059 706	20 870 394	46 037 120	66 905 954	1 234 541
1961 . . . . .	(NA)	(NA)	1 701 570	8 362 827	1 138 207	2 317 297	4 933 660	20 123 882	44 469 448	64 590 841	1 044 137
1960 . . . . .	(NA)	(NA)	1 719 309	9 210 415	1 154 813	2 347 651	4 856 884	19 753 156	(NA)	(NA)	1 034 146
1959 . . . . .	(NA)	(NA)	1 717 539	7 910 102	1 154 565	2 345 383	4 702 140	18 646 181	(NA)	(NA)	1 078 122
1957 . . . . .	(NA)	(NA)	1 697 615	7 141 257	1 133 212	2 304 005	4 243 838	16 346 999	(NA)	(NA)	922 575
1956 . . . . .	(NA)	(NA)	1 706 226	6 963 936	1 166 898	2 378 425	4 201 459	15 939 217	(NA)	(NA)	886 935
1955 . . . . .	(NA)	(NA)	1 674 255	6 543 568	1 154 115	2 343 504	3 940 184	14 790 062	(NA)	(NA)	797 712

## TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Code	Industry group and geographic area  (2- and 3-digit industries shown by region, division, and State)	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Capital expendi- tures, new  (\$1,000)	All employees  (number)	Value added by manufacture, adjusted  (\$1,000)
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
		(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)				
20	FOOD AND KINDRED PRODUCTS, TOTAL . .	37 521	14 113	1 643 111	8 637 152	1 098 116	2 228 013	5 159 376	21 825 516	1 249 245	1 718 132	1 770 096
	NORTHEAST . . . . .	9 102	3 141	373 163	2 054 640	243 316	495 740	1 193 597	5 147 479	248 888	410 225	4 313 219
	NEW ENGLAND . . . . .	2 358	741	75 754	375 957	47 876	96 988	207 014	910 797	43 160	85 183	742 700
	MAINE . . . . .	341	122	11 657	45 055	8 931	17 583	29 579	109 239	5 693	11 462	86 205
	NEW HAMPSHIRE . . . . .	150	41	2 944	14 092	1 579	3 353	6 565	31 474	1 564	3 129	21 127
	VERMONT . . . . .	132	37	2 699	13 142	1 740	3 644	7 481	35 022	1 642	2 876	34 294
	MASSACHUSETTS . . . . .	1 110	369	41 037	208 802	26 176	53 063	117 134	505 007	22 912	48 045	409 697

## TABLE 3. Detailed Statistics: 1963

Item (See "Data Item Guide," page xiii, for items shown)	Food and kindred products (SIC 20)	Meat products (SIC 201)	Dairies (SIC 202)	Canned and frozen foods (SIC 203)	Grain mills (SIC 204)	Bakery products (SIC 205)	Sugar (SIC 206)	Candy and related products (SIC 207)	Beverages (SIC 208)	Miscellaneous foods and kindred products (SIC 209)



# TABLE COLUMN HEADS: INDUSTRY CHAPTER TABLES

TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area (Divisions and States)	1963											1958	
	Establishments		All employees		Production workers			Value added by manufac- ture, adjusted (\$1,000)	Cost of material s (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	All em- ployees (number)	Value added by manufac- ture, adjusted (\$1,000)
	Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man- hours (1,000)	Wages (\$1,000)						

TABLE 3. Detailed Statistics: 1963

Item (See "Data Item Guide," page xiii, for items shown)	Food products machinery (SIC 3551)	Textile machinery (SIC 3552)	Woodworking machinery (SIC 3553)	Paper industries machinery (SIC 3554)	Printing trades machinery (SIC 3555)	Special industry machines, n.e.c. (SIC 3559)
-------------------------------------------------------------	------------------------------------------	------------------------------------	----------------------------------------	---------------------------------------------	--------------------------------------------	----------------------------------------------------

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establish- ments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3561.—PUMPS AND COMPRESSORS											
Establishments.....number..	642	198	77	100	93	47	61	38	17	10	1
All employees:											
Total.....do.....	61,322	336	499	1,361	2,953	3,356	9,932	13,256	11,332	18,297	(D)
Payroll.....\$1,000..	395,769	1,673	2,708	7,409	18,466	20,899	61,891	84,939	73,641	124,143	(D)
Value added, adjusted.....do....	768,787	3,715	5,423	15,331	36,659	44,762	129,437	167,692	154,906	210,862	(D)
Value of shipments.....do....	1,419,081	7,455	10,475	30,836	67,340	83,066	241,587	305,129	262,335	410,858	(D)
Capital expenditures, new...do....	28,417	179	205	413	727	1,776	4,305	6,359	5,633	8,820	(D)
INDUSTRY 3562.—BALL AND ROLLER BEARINGS											



# TABLE COLUMN HEADS: INDUSTRY CHAPTER TABLES--Continued

**TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code (4-digit)	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B:C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I

**TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963**

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)

miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Roasted coffee (SIC 2095)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Macaroni and spaghetti (SIC 2098)	Other industries
	ROASTED COFFEE INDUSTRY					MACARONI AND SPAGHETTI INDUSTRY—Continued			
	Total shipments and receipts of the industry.....	(X)	1,868,058	(X)		Secondary products .....	(X)	7,710	(X)
	Primary products.....	1,602,699	1,584,433	18,266		Miscellaneous receipts.....	(X)	11,938	(X)
20951	Roasted coffee, whole bean or ground.....	1,206,392	1,192,696	13,696	99989	Resales.....	(X)	9,892	(X)
20952	Concentrated coffee.....	396,307	391,737	4,570		Other receipts including commission receipts.....	(X)	2,046	(X)

**TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958**

Product code	Product	Total production	Total shipments including interplant transfers		Transfers to other plants of the same company		Produced and consumed in same establishment
			Quantity	Value	Quantity	Value	
		(1,000 pounds)	(1,000 pounds)	(\$1,000)	(1,000 pounds)	(\$1,000)	(1,000 pounds)

(Column structure varies with the industry. Production and interplant transfers are shown if they are significant)

Unit of measure	Production for all purposes including further manufacture (quantity)	Total shipments including interplant transfers		Commercial shipments	
		Quantity	Value (\$1,000)	Quantity	Value (\$1,000)

Unit of measure	Total shipments including interplant transfers			
	1963		1958	
	Quantity	Value (\$1,000)	Quantity	Value (\$1,000)



# TABLE COLUMN HEADS: INDUSTRY CHAPTER TABLES--Continued

**TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value

**TABLE 6C. Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963**

Code	Product class	1963	1962	1961	1960	1959	1958	1954	1947
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**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments
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**TABLE 7A. Materials by Kind: 1963 and 1958**

Code	Material (List of materials varies with each industry)	Basis	Unit of measure	1963			1958		
				Total consumption of materials (Quantity)	Consumption of materials received from other establishments		Total consumption of materials (Quantity)	Consumption of materials received from other establishments	
					Quantity	Delivered cost (\$1,000)		Quantity	Delivered cost (\$1,000)
						(Quantity)			(Quantity)

(Column structure varies. Production and consumption is shown if important in the industry)

Unit of measure	1963		1958	
	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)



## TABLE COLUMN HEADS: INDUSTRY CHAPTER TABLES--Continued

TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

[illegible]

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Appendix A for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
2071	CONFECTIONERY PRODUCTS										
	Entire industry.....	1,211	63,643	269,680	52,724	102,402	193,028	635,393	824,052	1,454,512	28,094
	Establishments with—										
	90% or more specialization...	1,141	56,803	243,055	47,152	91,820	174,476	568,175	717,149	1,280,786	25,213
	75-89% specialization.....	26	3,199	10,945	2,762	5,175	8,357	27,786	53,429	81,260	1,527
20711	Bar goods (except solid chocolate bars) (primary product class of estab.).....	48	9,861	45,744	8,161	16,113	32,998	119,607	168,094	287,367	4,974
	Establishments with—										
	90% or more specialization....	21	4,103	21,438	3,176	6,161	14,536	54,533	86,734	141,106	2,286
	75-89% specialization.....	11	2,546	11,112	2,269	4,564	8,968	31,373	33,400	65,060	767



**CONTENTS OF VOLUME II, INDUSTRY STATISTICS—DATA ITEM GUIDE TO TABLES IN EACH CHAPTER**

(Asterisk (\*) indicates historical data also shown)

**A - GENERAL STATISTICS**

Item	Industry chapters Part 1 - 20A to 28G Part 2 - 29A to 39D and 19A by 4-digit industry-				2-Digit major industry group summary chapters Part 1 - 20 to 28 Part 2 - 29 to 39 and 19			General summary Chapter 1 Part 1 only				
	As a whole	Division and State	Employ- ment size	Degree of special- ization	Industry		Division and State (2- and 3- digit)	Industry as a whole			Division, State, SMSA	
					2-digit	3-digit		All manu- facturers	2-digit	2-, 3-, 4 digit		
ALL MANUFACTURING ESTABLISHMENTS												
Companies (number).....	1*3									3		
Establishments, total (number).....					1*			3*				7*
Employment size (number).....					1*			3*				7*
All employees:												
Average for year (number).....					1*			3*	2*		6*	7*
Payroll, total for year (\$1,000).....					1*			3*	2*		6*	7*
ADMINISTRATIVE OFFICES AND AUXILIARIES SERVING MANUFACTURING ESTABLISHMENTS												
Establishments, total (number).....					1*			3	4	3		
Employment size (number).....					1*			3		3		
All employees:												
Average for year (number).....					1*			3*	2*4	3*	6*	
Payroll, total for year (\$1,000).....					1*			3*	2*4	3*	6*	
OPERATING MANUFACTURING ESTABLISHMENTS												
Primary product specialization ratio.....	1*3 5A*									3		
Coverage ratio.....	1*3 5A*									3		
Establishments, total (number).....	1*3	2	1 2 3 4	8	1*	3	2	1*	5	3		
Employment size (number).....	1*3	2	1 2 3 4		1*	3	2	1*	5	3		
Proprietors and working partners (number).....	3					3		1*	5	3		
All employees:												
Average for year (number).....	1*3	2*	4	8	1*	3	2*	1*	2*5	3	6*	
Payroll, total for year (\$1,000).....	1*3	2	4	8	1*	3	2	1*	2*5	3*	6*	
Production workers:												
Average for the year (number).....	1*3	2		8	1*	3	2	1*	5	3	7*	
By specified month (number).....	3					3			5		7*	
Man-hours, total (1,000).....	1*3	2		8	1*	3	2	1*	5	3	7*	
By quarter (1,000).....	3					3			5			
Wages (\$1,000).....	1*3	2		8	1*	3	2	1*	5	3	7*	
Cost of materials, etc., total (\$1,000)...	1*3	2		8		3			5			
Materials, parts, containers, and supplies consumed (\$1,000).....	3					3			5			
Cost of resales (\$1,000).....	3					3			5			
Fuels consumed (\$1,000).....	3					3			5			
Electric energy:												
Purchased:												
Quantity (million kw.-hrs.).....	3	7B				3			5			
Cost (\$1,000).....	3	7B				3			5			
Generated less sold (million kw.-hrs.).....	3	7B				3			5			
Contract work (\$1,000).....	3					3			5			
Value of shipments (including resales), total (\$1,000).....	1*3 5A* 5B	2	4	8		3			5	3*		
Value of resales (\$1,000).....	3 5B					3			5			
Miscellaneous receipts and contract work (\$1,000).....	5A* 5B											
Value added by manufacture, adjusted (\$1,000).....	1*3	2*	4	8	1*	3	2*	1*	5	3*	7*	
Manufacturers' inventories:												
Beginning of year, total (\$1,000).....	3					3			5	3		
Finished products, work-in-process, materials, supplies, fuel, etc. (\$1,000).....	3					3			5			
End of year, total (\$1,000).....	3					3			5	3		
Finished products, work-in-process, materials, supplies, fuel, etc. (\$1,000).....	3					3			5			
Expenditures for plant and equipment,												
total (\$1,000).....	3					3			5			
New, total (\$1,000).....	1*3	2	4	8	1*	3	2	1*	5	3*	7*	
New structures and additions to plant (\$1,000).....	3					3			5	3		
New machinery and equipment (\$1,000).....	3					3			5	3		
Used plant and equipment (\$1,000).....	3					3			5			



# CONTENTS OF VOLUME II, INDUSTRY STATISTICS—DATA ITEM GUIDE TO TABLES IN EACH CHAPTER

(Asterisk (\*) indicates historical data also shown)

## B - PRODUCTS AND MATERIALS

Item	Total	By industry of establishment	By area
1. PRODUCTS (Appear in industry chapters 20A to 39D and 19A of the industry to which they are primary):			
Individual products (7-digit):			
Quantity and value of shipments (production and interplant transfers if important).....	6A*		
Product classes (5-digit):			
Value of shipments.....(\$1,000)...	6A* 6C*	5B	6D*
Quantity of shipments (for a limited number of product classes).....	6A* 6C*		
Product groups (4-digit) value.....(\$1,000)...	6A*	5B	
Indexes of production (4-digit and 5-digit).....	6B*		
2. RELATIONSHIP OF VALUE OF SHIPMENTS FOR 4-DIGIT INDUSTRIES AND PRODUCTS:			
Industry shipments, total.....(\$1,000)...	1* 2 3 4 5A* 5B	8	
Primary products of industry.....(\$1,000)...	5A* 5B		
Secondary products of industry.....(\$1,000)...	5A* 5B		
Miscellaneous receipts of industry (Resales, contract receipts, installation work, etc. shown separately where significant).....(\$1,000)...	5B		
Specialization ratio (percent of industry shipments accounted for by primary products).....	1* 3 5A*		
Coverage ratio (percent of primary products shipped by establishments in the industry).....	1* 3 5A*		
3. MATERIALS CONSUMED (shown according to industry of establishments consuming them):			
Total cost.....(\$1,000)...	2 3	7A* 8	
Specific materials, quantity and cost (produced and consumed shown where important).....	3	7A*	
Electric energy, cost and quantity.....	3	7B	
Fuels, total.....(\$1,000)...	3	7B	
By type (coal, coke, oil, gas, etc.).....(\$1,000)...	3	7B	
Cost of contract work.....(\$1,000)...	3		
Cost of resales.....(\$1,000)...	3		
4. HORSEPOWER OF PRIME MOVERS.....		7B	
5. SPECIAL REPORTS (e.g., machinery in place, departmental operations, methods of distribution, etc.) appear in some industry chapters, usually as table 9.....		9	



# Industry Chapter Descriptions

Chapters in this volume are coded to industries as classified in the Standard Industrial Classification (SIC) system. Pages are numbered with a chapter identification prefix; for example, the chapter on Weaving Mills in Major

Group 22 will begin on page 22A–1. The list below shows the prefix identification for each chapter and the SIC industries included under each title. Chapters for both parts of this volume are shown.

## PART I

### Major Group 20—FOOD AND KINDRED PRODUCTS

#### 20A Meat Products

- 2011 Meat slaughtering plants
- 2013 Meat processing plants
- 2015 Poultry dressing plants

#### 20B Dairies

- 2021 Creamery butter
- 2022 Natural and process cheese
- 2023 Condensed and evaporated milk
- 2024 Ice cream and frozen desserts
- 2026 Fluid milk

#### 20C Canned and Frozen Foods

- 2031 Canned and cured seafoods
- 2032 Canned specialties
- 2033 Canned fruits and vegetables
- 2034 Dehydrated foods products
- 2035 Pickles, sauces, salad dressings
- 2036 Fresh or frozen packaged fish
- 2037 Frozen fruits and vegetables

#### 20D Grain Mills

- 2041 Flour mills
- 2042 Prepared animal feeds
- 2043 Cereal preparations
- 2044 Rice milling
- 2045 Blended and prepared flour
- 2046 Wet corn milling

#### 20E Bakery Products

- 2051 Bread and related products
- 2052 Biscuit, crackers, and cookies

#### 20F Sugar and Confectionery Products

- 2061 Raw cane sugar
- 2062 Cane sugar refining
- 2063 Beet sugar
- 2071 Confectionery products
- 2072 Chocolate and cocoa products
- 2073 Chewing gum

#### 20G Beverages

- 2082 Malt liquors
- 2083 Malt
- 2084 Wines and brandy
- 2085 Distilled liquor, except brandy
- 2086 Bottled and canned soft drinks
- 2087 Flavorings

#### 20H Fats and Oils

- 2091 Cottonseed oil mills
- 2092 Soybean oil mills
- 2093 Vegetable oil mills, n.e.c.
- 2094 Animal and marine fats and oils
- 2096 Shortening and cooking oils

#### 20I Miscellaneous Food Products

- 2095 Roasted coffee
- 2097 Manufactured ice
- 2098 Macaroni and spaghetti
- 2099 Food preparations, n.e.c.

### Major Group 21—TOBACCO MANUFACTURES

#### 21A Tobacco Products

- 2111 Cigarettes
- 2121 Cigars
- 2131 Chewing and smoking tobacco
- 2141 Tobacco stemming and redrying

### Major Group 22—TEXTILE MILL PRODUCTS

#### 22A Weaving Mills

- 2211 Weaving mills, cotton
- 2221 Weaving mills, synthetics
- 2231 Weaving, finishing mills, wool
- 2241 Narrow fabric mills

#### 22B Knitting Mills

- 2251 Women's hosiery, except socks
- 2252 Hosiery, n.e.c.
- 2253 Knit outerwear mills
- 2254 Knit underwear mills
- 2256 Knit fabric mills
- 2259 Knitting mills, n.e.c.

#### 22C Dyeing and Finishing Textiles, Except Wool Fabrics and Knit Goods

- 2261 Finishing plants, cotton
- 2262 Finishing plants, synthetic
- 2269 Finishing plants, n.e.c.

#### 22D Floor Covering Mills

- 2271 Woven carpets and rugs
- 2272 Tufted carpets and rugs
- 2279 Carpets and rugs, n.e.c.

#### 22E Yarn and Thread Mills

- 2281 Yarn mills, except wool
- 2282 Throwing and winding mills
- 2283 Wool yarn mills
- 2284 Thread mills

#### 22F Miscellaneous Textile Goods

- 2291 Felt goods, n.e.c.
- 2292 Lace goods
- 2293 Padding and upholstery filling
- 2294 Processed textile waste
- 2295 Coated fabric, not rubberized
- 2296 Tire cord and fabric
- 2297 Scouring and combing plants



2298 Cordage and twine  
2299 Textile goods, n.e.c.

2491 Wood preserving  
2499 Wood products, n.e.c.

## Major Group 23—APPAREL AND RELATED PRODUCTS

### 23A Men's and Boys' Apparel

2311 Men's and boys' suits and coats  
2321 Men's dress shirts and nightwear  
2322 Men's and boys' underwear  
2323 Men's and boys' neckwear  
2327 Separate trousers  
2328 Work clothing  
2329 Men's and boys' clothing, n.e.c.

### 23B Women's and Misses' Outerwear

2331 Blouses  
2335 Dresses  
2337 Women's suits, coats, and skirts  
2339 Women's outerwear, n.e.c.

### 23C Women's and Children's Underwear; Headwear; Children's Outerwear

2341 Women's and children's underwear  
2342 Corsets and allied garments  
2351 Millinery  
2352 Hats and caps  
2361 Children's dresses and blouses  
2363 Children's coats and suits  
2369 Children's outerwear, n.e.c.

### 23D Miscellaneous Apparel and Accessories

2371 Fur goods  
2381 Fabric dress and work gloves  
2384 Robes and dressing gowns  
2385 Waterproof outer garments  
2386 Leather and sheeplined clothing  
2387 Apparel belts  
2389 Apparel, n.e.c.

### 23E Miscellaneous Fabricated Textile Products

2391 Curtains and draperies  
2392 Housefurnishings, n.e.c.  
2393 Textile bags  
2394 Canvas products  
2395 Pleating and stitching  
2396 Apparel findings  
2397 Schiffli machine embroideries  
2399 Textile products, n.e.c.

## Major Group 24—LUMBER AND WOOD PRODUCTS

### 24A Logging Camps, Sawmills and Planing Mills

2411 Logging camps and contractors  
2421 Sawmills and planing mills  
2426 Hardwood dimension and flooring  
2429 Special product sawmills, n.e.c.

### 24B Millwork, Plywood and Prefabricated Structural Wood Products

2431 Millwork plants  
2432 Veneer and plywood plants  
2433 Prefabricated wood products

### 24C Wooden Containers and Miscellaneous Wood Products

2441 Nailed wooden boxes and shooks  
2442 Wirebound boxes and crates  
2443 Veneer and plywood containers  
2445 Cooperage

## Major Group 25—FURNITURE AND FIXTURES

### 25A Household Furniture

2511 Wood furniture, not upholstered  
2512 Wood furniture, upholstered  
2514 Metal household furniture  
2515 Mattresses and bedsprings  
2519 Household furniture, n.e.c.

### 25B Office, Public Building, Office and Store Fixtures and Miscellaneous Furniture

2521 Wood office furniture  
2522 Metal office furniture  
2531 Public building furniture  
2541 Wood partitions and fixtures  
2542 Metal partitions and fixtures  
2591 Venetian blinds and shades  
2599 Furniture and fixtures, n.e.c.

## Major Group 26—PAPER AND ALLIED PRODUCTS

### 26A Pulp, Paper, and Board Mills

2611 Pulp mills  
2621 Paper mills, except building  
2631 Paperboard mills  
2661 Building paper and board mills

### 26B Converted Paper and Paperboard Products, Except Containers and Boxes

2641 Paper coating and glazing  
2642 Envelopes  
2643 Bags, except textile bags  
2644 Wallpaper  
2645 Die cut paper and board  
2646 Pressed and molded pulp goods  
2647 Sanitary paper products  
2649 Converted paper products, n.e.c.

### 26C Paperboard Containers and Boxes

2651 Folding paperboard boxes  
2652 Set-up paperboard boxes  
2653 Corrugated shipping containers  
2654 Sanitary food containers  
2655 Fiber cans, tubes, drums, etc.

## Major Group 27—PRINTING AND PUBLISHING

### 27A Newspaper, Periodicals, Books, and Miscellaneous Publishing

2711 Newspapers  
2721 Periodicals  
2731 Books, publishing and printing  
2732 Book printing  
2741 Miscellaneous publishing

### 27B Commercial Printing and Manifold Business Forms

2751 Printing, except lithographic (letterpress, gravure, and screen)  
2752 Printing, lithographic  
2753 Engraving and plate printing  
2761 Manifold business forms



**27C Greeting Cards, Bookbinding, and Service Industries**

- 2771 Greeting card manufacturing
- 2782 Blankbooks: looseleaf binders
- 2789 Bookbinding and related work
- 2791 Typesetting
- 2793 Photoengraving
- 2794 Electrotyping and stereotyping

**Major Group 28—CHEMICALS AND ALLIED PRODUCTS**

**28A Industrial Inorganic and Organic Chemicals**

- 2812 Alkalies and chlorine
- 2813 Industrial gases
- 2814 Cyclic (coal tar) crudes
- 2815 Intermediate coal tar products
- 2816 Inorganic pigments
- 2818 Organic chemicals, n.e.c.
- 2819 Inorganic chemicals, n.e.c.

**28B Plastics Materials, Synthetic Rubber, and Man-Made Fibers**

- 2821 Plastics materials and resins
- 2822 Synthetic rubber
- 2823 Cellulosic man-made fibers
- 2824 Organic fibers, noncellulosic

**28C Drugs**

- 2831 Biological products
- 2833 Medicinals and botanicals
- 2834 Pharmaceutical preparations

**28D Cleaning and Toilet Products**

- 2841 Soap and other detergents
- 2842 Polishes and sanitation goods
- 2843 Surface active agents
- 2844 Toilet preparations

**28E Paints and Allied Products and Gum and Wood Chemicals**

- 2851 Paints and allied products
- 2861 Gum and wood chemicals

**28F Agricultural Chemicals**

- 2871 Fertilizers
- 2872 Fertilizers, mixing only
- 2879 Agricultural chemicals, n.e.c.

**28G Miscellaneous Chemical Products**

- 2891 Glue and gelatin
- 2892 Explosives
- 2893 Printing Ink
- 2895 Carbon black
- 2899 Chemical preparations, n.e.c.

**PART II**

**Major Group 29—PETROLEUM AND COAL PRODUCTS**

**29A Petroleum Refining and Related Industries**

- 2911 Petroleum refining
- 2951 Paving mixtures and blocks
- 2952 Asphalt felts and coatings
- 2992 Lubricating oils and greases
- 2999 Petroleum and coal products, n.e.c.

**Major Group 30—RUBBER AND PLASTICS PRODUCTS, N.E.C.**

**30A Rubber and Miscellaneous Plastics Products**

- 3011 Tires and inner tubes
- 3021 Rubber footwear
- 3031 Reclaimed rubber
- 3069 Rubber products, n.e.c.
- 3079 Plastics products, n.e.c.

**Major Group 31—LEATHER AND LEATHER PRODUCTS**

**31A Tanning; Footwear; Industrial Leather Goods**

- 3111 Leather tanning and finishing
- 3121 Industrial leather belting
- 3131 Footwear cut stock
- 3141 Shoes, except rubber
- 3142 House slippers

**31B Leather Gloves; Luggage; and Miscellaneous Leather Goods**

- 3151 Leather gloves
- 3161 Luggage
- 3171 Handbags and purses
- 3172 Small leather goods
- 3199 Leather goods, n.e.c.

**Major Group 32—STONE, CLAY, AND GLASS PRODUCTS**

**32A Glass Products**

- 3211 Flat glass
- 3221 Glass containers
- 3229 Pressed and blown glass, n.e.c.
- 3231 Products of purchased glass

**32B Cement and Structural Clay Products**

- 3241 Cement, hydraulic
- 3251 Brick and structural tile
- 3253 Ceramic wall and floor tile
- 3255 Clay refractories
- 3259 Structural clay products, n.e.c.

**32C Pottery and Related Products**

- 3261 Vitreous plumbing fixtures
- 3262 Vitreous china food utensils
- 3263 Fine earthenware food utensils
- 3264 Porcelain electrical supplies
- 3269 Pottery products, n.e.c.

**32D Concrete, Plaster, and Cut Stone Products**

- 3271 Concrete block and brick
- 3272 Other concrete products
- 3273 Ready mixed concrete
- 3274 Lime
- 3275 Gypsum products
- 3281 Cut stone and stone products

**32E Abrasive, Asbestos, and Miscellaneous Nonmetallic Mineral Products**

- 3291 Abrasive products
- 3292 Asbestos products
- 3293 Gaskets and insulations
- 3295 Minerals, ground or treated
- 3296 Mineral wool
- 3297 Nonclay refractories
- 3299 Nonmetallic products, n.e.c.



## Major Group 33—PRIMARY METAL INDUSTRIES

### 33A Blast Furnaces, Steel Works, and Rolling and Finishing Mills

- 3312 Blast furnaces and steel mills
- 3313 Electrometallurgical products
- 3315 Steel wire drawing, etc.
- 3316 Cold finishing of steel shapes
- 3317 Steel pipe and tube

### 33B Iron and Steel Foundries

- 3321 Gray iron foundries
- 3322 Malleable iron foundries
- 3323 Steel foundries

### 33C Smelting and Refining of Nonferrous Metals and Alloys

- 3331 Primary copper
- 3332 Primary lead
- 3333 Primary zinc
- 3334 Primary aluminum
- 3339 Primary nonferrous metals, n.e.c.
- 3341 Secondary nonferrous metals

### 33D Nonferrous Metal Mill and Foundry Products

- 3351 Copper rolling and drawing
- 3352 Aluminum rolling and drawing
- 3356 Rolling and drawing, n.e.c.
- 3357 Nonferrous wire drawing, etc.
- 3361 Aluminum castings
- 3362 Brass, bronze, copper castings
- 3369 Nonferrous castings, n.e.c.

### 33E Forgings and Miscellaneous Primary Metal Industries

- 3391 Iron and steel forgings
- 3392 Nonferrous forgings
- 3399 Primary metal industries, n.e.c.

## Major Group 34—FABRICATED METAL PRODUCTS

### 34A Metal Cans, Cutlery, Hand Tools, and General Hardware

- 3411 Metal cans
- 3421 Cutlery
- 3423 Hand and edge tools
- 3425 Hand saws and saw blades
- 3429 Hardware, n.e.c.

### 34B Heating Apparatus, Except Electric, and Plumbing Fixtures

- 3431 Metal Plumbing fixtures
- 3432 Plumbing fittings, brass goods
- 3433 Heating equipment, except electric

### 34C Fabricated Structural Metal Products

- 3441 Fabricated structural steel
- 3442 Metal doors, sash, and trim
- 3443 Boiler shop products
- 3444 Sheet metal work
- 3446 Architectural metal work
- 3449 Miscellaneous metal work, n.e.c.

### 34D Screw Machine Products, Bolts, Metal Stampings, and Metal Services

- 3451 Screw machine products
- 3452 Bolts, nuts, rivets, and washers
- 3461 Metal stampings
- 3471 Plating and polishing
- 3479 Metal coating, engraving, etc.

### 34E Fabricated Metal Products, N.E.C.

- 3481 Fabricated wire products, n.e.c.
- 3491 Metal barrels, drums, and pails
- 3492 Safes and vaults
- 3493 Steel springs
- 3494 Valves and pipe fittings
- 3496 Collapsible tubes
- 3497 Metal foil and leaf
- 3498 Fabricated pipe and fittings
- 3499 Fabricated metal products, n.e.c.

## Major Group 35—MACHINERY, EXCEPT ELECTRICAL

### 35A Engines and Turbines and Farm Machinery and Equipment

- 3511 Steam engines and turbines
- 3519 Internal combustion engines
- 3522 Farm machinery and equipment

### 35B Construction, Mining, and Materials Handling Machinery and Equipment

- 3531 Construction machinery
- 3532 Mining machinery and equipment
- 3533 Oil field machinery
- 3534 Elevators and moving stairways
- 3535 Conveyors
- 3536 Hoists, cranes, and monorails
- 3537 Industrial trucks and tractors

### 35C Metalworking Machinery and Equipment

- 3541 Metal-cutting machine tools
- 3542 Metal-forming machine tools
- 3544 Special dies and tools
- 3545 Machine tool accessories
- 3548 Metalworking machinery, n.e.c.

### 35D Special Industry Machinery, Except Metalworking Machinery

- 3551 Food products machinery
- 3552 Textile machinery
- 3553 Woodworking machinery
- 3554 Paper industries machinery
- 3555 Printing trades machinery
- 3559 Special industry machines, n.e.c.

### 35E General Industrial Machinery and Equipment

- 3561 Pumps and compressors
- 3562 Ball and roller bearings
- 3564 Blowers and fans
- 3565 Industrial patterns
- 3566 Power transmission equipment
- 3567 Industrial furnaces and ovens
- 3569 General industry machines, n.e.c.

### 35F Office, Computing, and Accounting Machines

- 3571 Computing and related machines
- 3572 Typewriters
- 3576 Scales and balances
- 3579 Office machines, n.e.c.

### 35G Service Industry Machines and Machine Shops

- 3581 Automatic vending machines
- 3582 Commercial laundry equipment
- 3585 Refrigeration machinery
- 3586 Measuring and dispensing pumps
- 3589 Service industry machines, n.e.c.
- 3599 Miscellaneous machinery



## Major Group 36—ELECTRICAL MACHINERY

### 36A Electrical Transmission, Distribution, and Industrial Apparatus

- 3611 Electric measuring instruments
- 3612 Transformers
- 3613 Switchgear and switchboards
- 3621 Motors and generators
- 3622 Industrial controls
- 3623 Electric welding apparatus
- 3624 Carbon and graphite products
- 3629 Electric industrial goods, n.e.c.

### 36B Household Appliances

- 3631 Household cooking equipment
- 3632 Household refrigerators
- 3633 Household laundry equipment
- 3634 Electric housewares and fans
- 3635 Household vacuum cleaners
- 3636 Sewing machines
- 3639 Household appliances, n.e.c.

### 36C Electric Lighting and Wiring Equipment

- 3641 Electric lamps
- 3642 Lighting fixtures
- 3643 Current carrying devices
- 3644 Noncurrent carrying devices

### 36D Communication Equipment, Including Radio and TV, and Electron Components and Accessories

- 3651 Radio and TV receiving sets
- 3652 Phonograph records
- 3661 Telephone; telegraph apparatus
- 3662 Radio, TV communications equipment
- 3671 Electron tubes, receiving type
- 3672 Cathode ray picture tubes
- 3673 Electron tubes, transmitting
- 3674 Semiconductors
- 3679 Electronic components, n.e.c.

### 36E Miscellaneous Electrical Machinery, Equipment and Supplies

- 3691 Storage batteries
- 3692 Primary batteries, dry and wet
- 3693 X-ray apparatus and tubes
- 3694 Engine electrical equipment
- 3699 Electrical products, n.e.c.

## Major Group 37—TRANSPORTATION EQUIPMENT

### 37A Motor Vehicles and Equipment

- 3713 Truck and bus bodies
- 3715 Truck trailers
- 3717 Motor vehicles and parts

### 37B Aircraft and Parts

- 3721 Aircraft
- 3722 Aircraft engines and parts
- 3723 Aircraft propellers and parts
- 3729 Aircraft equipment, n.e.c.

### 37C Ship and Boat Building, Railroad and Miscellaneous Transportation Equipment

- 3731 Ship building and repairing
- 3732 Boat building and repairing
- 3741 Locomotives and parts
- 3742 Railroad and street cars
- 3751 Motorcycles, bicycles, and parts
- 3791 Trailer coaches
- 3799 Transportation equipment, n.e.c.

## Major Group 38—INSTRUMENTS AND RELATED PRODUCTS

### 38A Instruments; Surgical, Dental and Ophthalmic Goods

- 3811 Scientific instruments
- 3821 Mechanical measuring devices
- 3822 Automatic temperature controls
- 3831 Optical instruments and lenses
- 3841 Surgical and medical instruments
- 3842 Surgical appliances and supplies
- 3843 Dental equipment and supplies
- 3851 Ophthalmic goods

### 38B Photographic Equipment; Clocks, Watches and Watchcases

- 3861 Photographic equipment
- 3871 Watches and clocks
- 3872 Watchcases

## Major Group 39—MISCELLANEOUS MANUFACTURING

### 39A Jewelry, Silverware, and Plated Ware

- 3911 Jewelry, precious metal
- 3912 Jewelers' findings and materials
- 3913 Lapidary work
- 3914 Silverware and plated ware

### 39B Musical Instruments and Parts; Toys, and Sporting and Athletic Goods

- 3931 Musical instruments and parts
- 3941 Games and toys
- 3942 Dolls
- 3943 Children's vehicles
- 3949 Sporting and athletic goods

### 39C Office Supplies, Costume Jewelry and Miscellaneous Notions

- 3951 Pens and mechanical pencils
- 3952 Lead pencils and art goods
- 3953 Marking devices
- 3955 Carbon paper and inked ribbons
- 3961 Costume jewelry
- 3962 Artificial flowers
- 3963 Buttons
- 3964 Needles, pins, and fasteners

### 39D Miscellaneous Manufacturing Industries

- 3981 Brooms and brushes
- 3982 Hard surface floor coverings
- 3983 Matches
- 3984 Candles
- 3987 Lamp shades
- 3988 Morticians' goods
- 3992 Furs, dressed and dyed
- 3993 Signs and advertising displays
- 3995 Umbrellas, parasols, and canes
- 3999 Miscellaneous products, n.e.c.

## Major Group 19—ORDNANCE AND ACCESSORIES

### 19A Ordnance and Accessories

- 1911 Guns, howitzers, and mortars
- 1925 Complete guided missiles
- 1929 Ammunition, n.e.c.
- 1931 Tanks and tank components
- 1941 Sighting and fire control equipment
- 1951 Small arms, 30 mm, and under
- 1961 Small arms ammunition
- 1999 Ordnance and accessories, n.e.c.





# Introduction

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## I. GENERAL

### 1. ROLE OF THE CENSUS OF MANUFACTURES

The census of manufactures provides a detailed profile of the largest sector of the American economy. That census obtains, from every manufacturing plant with one employee or more, information on its input of labor and materials, its output of products, its location, and the legal form of organization of the owning firm. This information is obtained in sufficient detail to permit its classification by industry, by size of plant, by the homogeneity of its output and, where desirable, by type of operation, extent of vertical integration, kind of equipment, relationship to other plants of the same firm, and other characteristics.

The census of manufactures is conducted simultaneously with the censuses of mineral industries, wholesale and retail trade and selected services, and transportation.<sup>1</sup> This has facilitated the statistical coverage of the entire range of activities of most enterprises and a consequent improvement in the capability of the Bureau of the Census to deal effectively with the statistical problems of identifying establishments which support manufacturing activity, such as central administrative offices, auxiliaries, and sales branches; and to classify entire enterprises into industrial categories.

<sup>1</sup>The 1963 censuses covered the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1963 were also conducted in Puerto Rico jointly with the Commonwealth Government. The statistics from 1958 onward include establishments in Alaska and Hawaii which achieved statehood in 1959.

General statistics information (i.e., total employment, payroll, production-worker employment, man-hours, wages, cost of materials, value of shipments, inventories, capital expenditures, and value added by manufacture) from the census of manufactures is published by industry, by area, by employment size of establishment, by degree of product specialization within plant, and by type of ownership. Information is supplied on the detailed industrial characteristics of each State and large standard metropolitan statistical area (SMSA); overall measures of manufacturing activity are shown at the county and individual city level down to cities of 10,000 or more population. This information constitutes a periodic inventory of the Nation's manufacturing economy that provides a benchmark for measuring the changes in that structure.

The census of manufactures also provides a benchmark from which more frequent surveys can be developed on a scientific sample basis. In fact, the present legislation specifying that censuses be conducted every 5 years authorizes an annual survey of manufactures on a sample basis during the intervening years. At the end of each 5-year census, a new sample is drawn relying on the overall characteristics described by the census itself. The sample, constituting about one-fifth of the establishments but with complete coverage of all large ones, provides an annual updating of the census of manufactures in terms of broad measures of economic activity. It provides the same basic measures of economic activity of the plant such as employment, payrolls, value of shipments, value added by manufacture, as does the census of manufactures, but contains



less detailed information on products, materials consumption, and equipment.<sup>2</sup>

The census of manufactures not only is a benchmark for many of the surveys conducted by the Census Bureau itself on a more frequent basis but also is the means of updating other important indicators of the economic activity. It provides very important information on the manufacturing segment used in the national income accounts. Census data on materials consumed and product output are basic to the manufactures sector of the input-output studies of the Office of Business Economics. The information derived from the census of manufactures is also used by the Federal Reserve Board in cooperation with the Census Bureau to develop indexes of industrial production for census years. This index is used as a benchmark for the monthly Federal Reserve Index of Industrial Production—a key monthly indicator of current economic activity.

<sup>2</sup> Since the annual survey of manufactures is a sample, the cross-classifications by industry and by area are fewer than in the census of manufactures. At the U.S. level, statistics are published in the annual survey for practically all of the 425 industries. However, at the State and SMSA levels, statistics are published only for 3-digit and 2-digit industry groupings, respectively. At the county level, information is published for about 10 percent of the 3,000 counties. These 300-odd counties are the larger ones in terms of manufacturing activity and account for about 80 percent of total manufacturing employment. No information is published at the city level.

The concurrent collection of comparable data on wholesale and retail trades, selected services, manufacturing, and minerals in the censuses beginning with 1954 has permitted the Census Bureau to develop its Enterprise Statistics Program, which relates census company-level data to the establishment data. Thus, a measurement of the integration and diversification of the American enterprise system becomes available. Likewise, through the Enterprise Statistics Program, it is possible to link census establishment-based data on a modified basis to other statistical systems such as the Internal Revenue Service's "Statistics of Income" for corporations.

## 2. ECONOMIC SIGNIFICANCE OF MANUFACTURING SECTOR

Manufacturing is the largest sector in the country's economy. In 1963, manufacturing establishments employed approximately 17 million persons of a civilian labor force of 75 million. During the 35-year period, 1929 to 1963, income originating in manufacturing has averaged 30 percent of national income (see table A). Wholesale and retail trade, the next largest sector, averaged about 15 percent.

The need for frequent and comprehensive statistics on manufactures derives as

TABLE A. National Income, Total and Amounts Originating in Durable and Nondurable Manufactures, for Selected Years

(Dollar values in billions)

Year	National income	National income originating in--				
		Manufacturing			Manufacturing as a percent of national income	Durable goods industries as a percent of total manufacturing
		Total	Nondurable goods industries	Durable goods industries		
1963.....	481.9	143.8	57.5	86.3	30	60
1962.....	457.7	137.0	55.6	81.4	30	59
1961.....	427.3	125.1	52.8	72.3	29	58
1960.....	414.5	125.8	52.2	73.6	30	59
1959.....	400.0	124.0	51.1	72.9	31	59
1958.....	367.8	107.7	45.7	62.0	29	58
1957.....	366.1	116.3	46.4	69.9	32	60
1956.....	350.8	113.1	46.2	66.8	32	59
1955.....	331.0	107.9	44.0	63.8	33	59
1954.....	303.1	94.6	39.7	54.9	31	58
1953.....	304.7	100.4	40.3	60.1	33	60
1952.....	291.4	92.5	38.2	54.3	32	59
1951.....	278.0	90.2	38.4	51.8	32	57
1950.....	241.1	76.2	33.3	42.9	32	56
1949.....	217.5	64.8	30.5	34.2	30	53
1947.....	199.0	59.5	28.0	31.5	30	53
1943.....	170.3	58.3	19.6	38.6	34	66
1939.....	72.6	18.1	9.1	9.0	25	50
1935.....	57.2	13.4	7.3	6.1	23	46
1933.....	40.3	7.7	4.9	2.8	19	36
1932.....	42.8	7.3	5.2	2.1	17	29
1929.....	86.8	21.9	10.6	11.3	25	52

Source: Survey of Current Business, August 1965, pp. 42-45, and July 1966, p. 15.

TABLE B. National Income by Industry Division for Selected Years

Industry	1929	1933	1939	1947	1954	1958	1963
In billions of dollars							
All industries, total.....	86.8	40.3	72.6	199.0	303.1	367.8	481.9
Manufacturing.....	21.9	7.7	18.1	59.5	94.6	107.8	143.8
Nondurable goods.....	10.6	4.9	9.1	28.0	39.7	45.7	57.5
Durable goods.....	11.3	2.8	9.0	31.5	54.9	62.0	86.3
Wholesale and retail trade.....	13.5	5.6	12.6	37.6	48.3	58.2	73.3
Government and government enterprises.....	5.1	5.3	8.5	18.7	36.1	46.9	64.8
Services.....	8.8	5.1	7.6	18.1	27.8	38.4	54.1
Finance, insurance, and real estate.....	12.8	5.9	8.0	16.1	32.0	40.9	53.6
Contract construction.....	3.8	0.8	2.3	8.4	15.6	19.0	24.1
Transportation.....	6.6	3.0	4.6	11.6	14.6	16.6	20.0
Agriculture, forestry, and fisheries.....	8.5	3.9	6.0	18.9	16.4	18.0	18.6
Electric, gas and sanitary services.....	1.6	1.3	1.8	2.8	5.9	7.4	10.3
Communication.....	1.1	0.7	1.1	2.3	5.1	7.0	9.8
Mining.....	2.1	0.6	1.6	4.2	5.3	5.7	6.0
Rest of the world.....	0.8	0.3	0.3	0.8	1.6	2.0	3.4
Percent of total							
All industries, total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Manufacturing.....	25.2	19.1	24.9	29.8	31.2	29.2	29.8
Nondurable goods.....	12.2	12.2	12.5	14.0	13.0	12.4	12.0
Durable goods.....	13.0	6.8	12.4	15.8	18.1	16.8	17.8
Wholesale and retail trade.....	15.5	13.9	17.3	18.8	15.9	15.8	15.2
Government and government enterprises.....	5.8	13.2	11.7	9.3	11.9	12.7	13.4
Services.....	10.1	12.7	10.4	9.0	9.1	10.4	11.2
Finance, insurance, and real estate.....	14.7	14.5	11.0	8.1	10.5	11.1	11.0
Contract construction.....	4.4	1.9	3.2	4.2	5.1	5.1	5.0
Transportation.....	7.6	7.5	6.3	5.8	4.8	4.5	4.2
Agriculture, forestry, and fisheries.....	9.7	9.6	8.3	9.4	5.4	4.8	3.8
Electric, gas and sanitary services.....	1.8	3.1	2.4	1.4	1.9	2.0	2.1
Communication.....	1.2	1.7	1.4	1.1	1.6	1.9	2.0
Mining.....	2.4	1.5	2.2	2.1	1.7	1.5	1.2
Rest of the world.....	0.9	0.8	0.4	0.4	0.5	0.5	0.6

Source: Survey of Current Business, August 1965, pp. 42-45 and July 1966, p. 15.

much from its sensitivity to cyclical influences as from its relative size. Cyclical changes in income originating in manufacturing tend to be relatively larger than in the economy as a whole.

Within manufacturing, durable goods industries accounted for about 57 percent of all manufactures for that period. However, they tend to be more volatile than nondurable goods, accounting for a smaller percentage of all manufactures during periods of contraction and a larger percentage during periods of expansion. Of the census years since 1919, only 1925, 1935, 1939, 1947, and 1963 have not included some part of a period of contraction and a consequent underrepresentation of durable goods in the total. (See table B.)

#### Geographic Location of Manufactures.—

The preponderance of manufacturing in the United States is predominantly in the Northeast as is shown in table C, page 4. Over the years, however, there has been a shift to the South and West.

**Size Distribution of Manufacturing Plants.**—Most manufacturing establishments require a substantial amount of capital and ordinarily a considerable volume of business for efficient operation. While there are many small plants, they account for relatively little of the Nation's production. Thus, as shown in table D, half the plants have less than 10 employees but they account for only 3 percent of the value added by manufacture.

### 3. EARLIER CENSUSES

The census of manufactures for 1963 is the 27th such census for the United States. The first census of manufactures covered 1809 and, with the exception of 1829, a census was taken at 10-year intervals in connection with the decennial census of population up to and including 1899. It was conducted at 5-year intervals from 1904 through 1919, and every other year from 1921 through 1939. The census was suspended during World War II, but it was resumed for 1947. Legislation enacted in 1948 provided for a census every 5 years, cov-



TABLE C. Operating Manufacturing Establishments Employment by Divisions and as a Percent of the United States  
Total for Selected Years

Geographic division	Employment (1,000)	Percent	Employment (1,000)	Percent	Employment (1,000)	Percent
	1963		1958		1947	
United States, total.....	16,234	100.0	15,423	100.0	14,294	100.0
New England.....	1,379	8.5	1,360	8.8	1,475	10.3
Middle Atlantic.....	3,811	23.5	3,882	25.2	3,954	27.7
East North Central.....	4,264	26.3	4,084	26.5	4,323	30.2
West North Central.....	975	6.0	933	6.0	786	5.5
South Atlantic.....	2,068	12.7	1,844	12.0	1,524	10.7
East South Central.....	874	5.4	767	5.0	635	4.5
West South Central.....	838	5.2	771	5.0	551	3.9
Mountain.....	279	1.7	225	1.5	140	1.0
Pacific.....	1,746	10.8	1,554	10.1	914	6.4
	1939		1929		1899	
United States, total.....	9,527	100.0	10,198	100.0	5,077	100.0
New England.....	1,121	11.8	1,246	12.2	897	17.7
Middle Atlantic.....	2,758	29.0	3,003	29.4	1,732	34.1
East North Central.....	2,693	28.3	2,949	28.9	1,177	23.2
West North Central.....	491	5.2	567	5.6	297	5.8
South Atlantic.....	1,111	11.7	1,000	9.8	483	9.5
East South Central.....	410	4.3	417	4.1	188	3.7
West South Central.....	331	3.5	341	3.3	122	2.5
Mountain.....	89	0.9	119	1.2	48	1.0
Pacific.....	523	5.5	556	5.5	133	2.6

Note: Detailed figures may not add to totals because of independent rounding.

ering the years ending in "3" and "8," and authorized an annual sample survey for interim years.<sup>3</sup> An annual survey of manufactures has been conducted for the intercensal years beginning with 1949 and is a continuing part of the Bureau's program. Table 1, General Summary, provides national totals for manufactures for the censuses and annual surveys since 1849.

The census of manufactures was the public's only source of reliable statistical information on manufactures during the 19th century. During the current century, particularly since the first world war, more frequent statistical series on many aspects of manufactures have been developed. However, the census of manufactures continues to play an essential

<sup>3</sup>The census originally scheduled to cover 1953 was conducted for 1954 on the basis of special legislation authorizing this change. A census covering 1958 and this census covering 1963 were conducted under the legislation of 1948. In an effort to spread its workload more evenly over the decennial period, the Bureau of the Census, in 1964, asked for and obtained legislation (P.L. 88-532) specifying that subsequent censuses of manufactures would cover the years ending in "2" and "7." Consequently, the next census of manufactures is scheduled for 1967.

role in the Nation's statistical program, since it remains the only source of comprehensive information on the detailed industrial and geo-

TABLE D. Cumulative Percentage of Number of Manufacturing Establishments and Value Added by Manufacture by Size Class 1963

Size class	Number of establish- ments	Value added by manufac- ture
All establishments.....	100.0	100.0
Establishments with an average of—		
1 to 4 employees.....	36.5	1.1
5 to 9 employees.....	52.3	2.7
10 to 19 employees.....	67.6	5.9
20 to 49 employees.....	83.0	13.3
50 to 99 employees.....	90.5	21.5
100 to 249 employees.....	96.2	36.5
250 to 499 employees.....	98.4	49.8
500 to 999 employees.....	99.4	63.0
1,000 to 2,499 employees.....	99.8	78.2
2,500 employees and over.....	100.0	100.0

graphical structure of the manufacturing sector which is closely comparable over long periods of time.

#### 4. DEFINITION OF MANUFACTURING

Manufacturing is the mechanical or chemical transformation of inorganic or organic substances into new products. The assembly of component parts of products is also considered to be manufacturing if the resulting product is neither a structure nor other fixed improvement. These activities are usually carried on in plants, factories, or mills, which characteristically use power-driven machines and materials-handling equipment.

Manufacturing production is usually carried on for the wholesale market, for transfer to other plants of the same company, or to the order of industrial users rather than for direct sale to the household consumer. However, some manufacturers (e.g., baking, milk bottling, etc.) sell chiefly at retail to household consumers through the mail, through house-to-house routes, or through salesmen. Some activities of a service nature (enameling, binding, platemaking, etc.) are included in manufacturing when they are performed primarily for the trade; but they are considered nonmanufacturing when they are performed primarily to the order of the household consumer. On the other hand, some manufacturing industries include business firms which do not undertake physical production but perform only the entrepreneurial functions of buying the materials, designing, and marketing the product, and have the actual production done on contract (e.g., apparel jobbers).

In addition to the production of goods and manufacturing services, manufacturing plants engage in related and diverse supporting activities. These activities encompass the acquisition of materials to be processed, their movement into the manufacturing facility, their storage at the manufacturing site, the operation and maintenance of plant and equipment, the design of flow of work through the production process, and necessary arrangements for shipment of output to customers. Also included are a host of subsidiary activities associated with the conduct of the establishment as a manufacturing entity; e.g., management and policy formation, product and market orientation, engineering and quality control, record-keeping and accounting, physical security of plant and equipment, and the like. Such subsidiary activities may be performed by personnel located at the manufacturing facility or at an auxiliary unit serving one or more manufacturing locations of the same company. Where these activities are carried on at a different physical location or are performed for more than one plant, they are excluded from the figures for operating manufacturing establishments and are included in the data shown for

central administrative offices and auxiliaries (see sections 8 (form NC-X6) and 11 of the text).

The following types of activities, while having many of the characteristics usually found in manufacturing, are considered as nonmanufacturing and, therefore, are excluded from the census:

(a) Processing on farms when the raw materials are grown on the farm and the manufacturing activities (poultry dressing, milk and butter production, logging) are on a small scale without extensive use of paid labor. Also custom milling, cotton ginning, egg hatching, and similar activities closely associated with agriculture are excluded.

(b) Mineral preparation such as the crushing, screening, and concentrating of ores. However, mining performed as a secondary activity in conjunction with manufacturing is included in the census; for example, stone and clay mining at cement, lime, and clay products plants.

(c) Custom work to the individual order of household consumers. Examples are custom tailoring, wood-working, lettering on monuments, setting of diamonds, and the making of orthopedic appliances.

(d) Repair and other service activities, except specified services performed "for the trade." Repair shops of railroads are also excluded.

(e) Production of coke for own use by establishments owned by public utility companies.

On the other hand, the census of manufactures excludes manufacturing at locations which are not primarily manufacturing plants: (1) Manufacturing by retail establishments which sell most of their products on the premises directly to household consumers, e.g., retail bakeries, ice cream stores, and feed stores; (2) manufacturing by construction contractors at the site, e.g., production of paving mixtures; and (3) manufacturing by educational, eleemosynary, and penal institutions.

Conversely, it is not unusual for manufacturing establishments to engage also in nonmanufacturing activities such as repair work, merchandising of products without further processing, and installation work. Ordinarily, these nonmanufacturing receipts are small in relation to the manufacturing activities and, therefore, it is not difficult to determine that the establishments should be included in the manufactures area. However, if the nonmanufacturing activities account for a significant proportion of total receipts of an establishment, the classification of that establishment



into the appropriate major economic sector is more difficult.

In the 1963 economic censuses, an establishment engaged in a combination of manufacturing and merchandising was assigned either to the manufacturing or the trade industries depending on which of these activities was estimated to account for the larger share of its "value added" or "income produced." This criterion, even though based on an approximation, was considered preferable to reported dollar volume of receipts from each type of activity in determining the primary industry, since manufacturing requires considerably more man-hours, salaries and wages, and other inputs per dollar of receipts than either wholesaling or retailing. However, in classifying establishments engaged in manufacturing and also in mining, repair work, installation, construction or other nonmanufacturing services, dollar receipts were used as the basis of classification because these activities require substantially comparable inputs per dollar of receipts.

Data were obtained on the manufacturing activities during 1963 of establishments owned and operated by the Federal Government (military arsenals, Navy yards, etc.) and of Federal and State prisons for the purpose of presenting complete information on manufacturing operations in the United States. Statistics on the employment, value added by manufacture, and products manufactured by the Department of Defense establishments and the quantity and value of products made in Federal and State prisons are shown in a separate chapter in each manufactures volume. These data are not included in any of the individual industry or industry group totals or area statistics appearing in the census of manufactures volumes. However, information on government-owned, privately operated establishments is included throughout the statistical tables in the appropriate industry on the same basis as privately owned and operated plants.

## 5. THE STANDARD INDUSTRIAL CLASSIFICATION (SIC)

The specific industry coding and groupings in the 1963 Census of Manufactures follow the structure of the *Standard Industrial Classification Manual*, published by the Bureau of the Budget. This manual, which is a classification structure for the entire national economy, was first issued in 1939.<sup>4</sup> In the

<sup>4</sup>For the manufacturing industries, a revised manual was issued in 1945 which, with minor modifications, was used in the 1947 Census of Manufactures. For the 1954 census, the classification structure used in 1947 was again employed, again with minor modifications. In 1957, the SIC system was extensively revised for manufacturing industries and historical comparability of some data was seriously affected. This revision and its effects on census series are described in the introduction and appendixes to the 1958 census volumes. A minor revision of the SIC between 1958 and 1963 introduced some 4-digit industry changes but none of them crossed 3-digit group lines. Also, there were some amendments in industry titles, definitions, and index items, and additions to the index items in the SIC Manual.

manufacturing sector, the manual built upon the Bureau of the Census manufacturing industry classifications developed over the years. The SIC was developed for use in classifying establishments by type of activity in which they are engaged in order to facilitate the collection, tabulation, and publication of data relating to establishments and to promote uniformity and comparability in the presentation of statistical data by government agencies, trade associations, research organizations, and others.

The SIC divides all activities into broad industrial divisions (manufacturing, mining, retail trade, agriculture, etc.). It further subdivides each division into major industry groups, then into industry groups, and finally into detailed industries. The numbering system provides flexibility, permitting use of classification at various levels of detail according to the specific needs and uses desired. Employing a decimal system of coding, the Major Industry Group is assigned two digits (Major Group 20 for Food and Kindred Products), the Industry Group, three digits (Group 201 for Meat Products), and the industry, four digits (Industry 2011 for Meat Packing Plants). Thus, for each 4-digit industry, it is possible to identify the Industry Group to which it belongs by the first three digits of its code and, by its first two digits, the Major Industry Group. For the manufacturing division, the 21 2-digit SIC Major Groups (19 to 39) are subdivided into 149 3-digit SIC Groups (191 to 398) and into 427 4-digit industries (1911 to 3999). While the SIC contains 427 industries, the Bureau of the Census combines three industries in the automotive area into one, for a total of 425 industries.

Most of the 425 manufacturing industries are defined in terms of a specific group of related products. Usually, the products are made of similar materials and by similar processes, and are competitive. In determining the boundaries of product-defined industries,<sup>5</sup> it is essential that each industry comprise a group of establishments whose output of products defining the industry (primary products) accounts for a relatively high proportion of the total shipments of the industry as well as of the total shipments of these primary products by establishments in all manufacturing industries. Some industries are defined in terms of the processes or equipment used regardless of the final product of the establishment. A small number of industries are basically defined by material used as well as final product of the plant.

<sup>5</sup>Frequently the business world and other data users look at a group of products from more than one point of view. For example, modern high-speed computers are classified as office machines. This describes the purpose of the product. In a physical sense, however, such computers would be described as electronic devices. Similarly, paper bags, wooden boxes, glass bottles, tin cans, and steel barrels may all be classified as containers or they may be individually grouped with other products of similar materials such as converted paper products, wood products, glass products, etc.



There are wide differences among industries in the extent to which the establishments classified in the industry (a) account for the total production of commodities "primary" to the industry, (b) produce products or services "belonging" to other industries (i.e., secondary products), and (c) use similar materials or processes. (See sections 15, 16, 18, and 24). While these variations are frequently construed to be shortcomings, the fact is that the limitations observed in the classification structure arise from the inherent complexity of our economic system and from the disparity in the methods of production among the individual producing units of which it is comprised. The data collected in the census of manufactures provide a statistical basis for a critical evaluation of the classification system; i.e., for assessing the boundaries between industries, the growth and decline of industries, and the impact of technological change on the classification of industries. Consequently, the census is the primary instrument for effecting revisions in the SIC manufacturing sector.<sup>6</sup>

No general-purpose system of industrial classification can hope to satisfy all users of census data. Some business users will be interested primarily in data relating only to themselves and to their competitors in the production of a narrow range of products; others will wish data relating to all products, including complementary and substitutable products, competing in a particular market; others may wish data relating to the consumers of one or more types of materials. Some may be interested only in the data for plants producing a specific product; others only for those plants producing a "full line" of products. The large number of SIC industries provides the analyst with the "building blocks" for obtaining useful approximations, if not "clean" data, relevant to many of these problems. But, at best, a single general-purpose system of classification can satisfy these diverse needs only partially; a point is soon reached beyond which the adaptation of a system to serve one use somewhat better will reduce its ability, often disproportionately, to serve an alternative use.

Accordingly, users of data frequently regroup detailed SIC industries into broad groupings along lines different from those in the SIC 2- and 3-digit categories. The Federal Reserve Board for many years has made combinations to stress such criteria as durable, nondurable, consumers, producers, finished, intermediate goods, etc. Other public and private agencies also recombine the detailed classes. By and large, the 4-digit industries are susceptible to allocation to such categories, while the 2-digit SIC groups are not.

<sup>6</sup> See *Industry Classification and Sector Measures of Industrial Production* by James W. McKie, Bureau of the Census Working Paper No. 20, 1965. and *Historical Comparability of Census of Manufactures Industries, 1929-1958* by Harold T. Goldstein, Bureau of the Census Working Paper No. 9, 1959.

To increase the usefulness or improve the editing of the data, the Census Bureau frequently has further classified the basic 4-digit SIC industries into "subindustries." This device is employed where there are wide disparities in the operating ratios of the plants in the industry because of differences in the degree of intraplant vertical integration, technology, methods of distribution, geographic location, types of materials used, etc. This technique was used for about 65 manufacturing industries for editing purposes and many were regarded as sufficiently significant to be used for publication: For example, the bakery industry (SIC 2051) is subdivided into wholesale bakeries, chain-store bakeries, home-service bakeries, and retail multi-outlet bakeries; many apparel industries (Group 23) are subclassified into manufacturers, contractors, jobbers; the lumber industry (2421) by degree of integration, etc.

To provide a further measurement of variations within 4-digit industries, the Bureau also subclassifies establishments by the degree to which they produce the primary products or specific classes of primary products of the 4-digit industry. This is in effect a subindustry classification based on degree of product specialization. (See section 24 for a more complete discussion of product specialization data.)

## 6. ESTABLISHMENT BASIS OF REPORTING

The census of manufactures is conducted on an establishment basis. That is, a company operating establishments at more than one location is required to submit a report for each location; also, a company engaged in distinctly different lines of activity at one location is required to submit separate reports if the plant records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports, therefore, differ substantially from those prepared on a company basis; i.e., from consolidated reports which combine various types of activities at different locations (thereby yielding a net sales figure for the industry exclusive of interplant transfers but making meaningful geographic tabulations of employment and value added impossible). These consolidated reports also include nonmanufacturing activities of companies primarily engaged in manufacturing. Census figures will also differ to some extent from other tabulations based on establishment reports where the definition of an establishment, as to location and line of activity, is not applied in the same manner.

The requirement that distinct lines of activity at the same location be separately reported was selectively applied where the establishment produced and shipped significant amounts of products classified in different SIC



industries. In widely varying degrees, this product overlap exists in many manufacturing establishments. Generally, the amounts involved are not of serious proportion so that the filing of separate reports would not be warranted as a practical matter, even if feasible. However, there are a number of locations at which large numbers of employees are engaged in each of two or more distinct lines of manufacturing as defined in the SIC. Frequently, companies organize their operations and their records separately where diverse activities are large and choose to report them as separate plants. When they do not do so on their own initiative, the Census Bureau requests separate reports. For the most part, companies have responded favorably, particularly for very large operations where failure to "split out" the different activities would significantly distort the relationship of the industry and product statistics. Not infrequently, though, the two groups of products were made on the same production lines by many of the same employees and could not be distinguished sufficiently in the companies' records to provide establishment-type reporting.

SIC industry definitions take account of special situations where otherwise separately classifiable activities are frequently combined at one location. For example, in the lumber area the definition of industry 2421, Sawmills and Planing Mills, General, recognizes the situation that sawmills may include logging operations. Similarly, in the pulp and paper area, pulp mills operated in combination with paper mills are included in one report.

In 1963 and 1958, as in earlier years, a minimum size limit was set for including establishments in the census. Reports were required from all establishments employing one or more persons at any time during the census year. The same size limitation has applied since 1947 in censuses and annual surveys of manufactures. In the 1939 and earlier censuses, establishments with less than \$5,000 value of products were excluded. The change in the minimum size limit in 1947 has not appreciably affected the historical comparability of earlier census figures except for data on number of establishments for a few industries.

A special study of manufacturing plants with no employees in 1958 was made to analyze the amount of manufacturing activity conducted by these very small establishments. While there were over 50,000 manufacturing establishments in this category in that year, they had only about one-quarter of 1 percent of the total value of shipments of all manufacturing.

The SIC coding system operates in such a way that the definitions become progressively narrower with successive additions of numerical digits. At one extreme are

the 21 very broad 2-digit groups and at the other about 10,000 individual 7-digit products. In between are approximately 150 3-digit groups, 425 4-digit industries, and 1,100 5-digit product classes. The 7-digit products and 5-digit product classes are considered the primary products of the industry with the same first four digits as the product code. Accordingly, an establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. The industry code assigned to the establishments is derived from a summation of values for 7-digit product codes to their 4-digit industry and the selection of the largest such value as the establishment's industry classification. However as mentioned earlier, the industry classification of an establishment may be determined not only by the products it makes but also by the processes employed or materials used in making those products.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. Therefore, the general statistics (employment, payrolls, inventories, value added by manufacture, total value of shipments, capital expenditures, etc.) shown for an industry (tables 1 to 4 of the industry chapters in Volume II) reflect not only the primary activities of the establishments in that industry but also their activities of a secondary nature. The product statistics in table 6 of the industry chapters represent the total output of specific products whether they are produced by establishments classified in the same industry as the product or not. For this reason, in relating the industry statistics in the industry chapters, especially the industry total value of shipments (tables 1 to 4), to the product statistics (table 6), the composition of the industry's output as shown in tables 5A and 5B should be considered.

The extent to which industry and product statistics may be matched with each other is measured by the two ratios which are computed from these tables 5A and 5B. The first of the ratios, called the primary product specialization ratio, describes the proportion of product shipments (both primary and secondary) of the industry represented by primary products. The second, defined as the coverage ratio, is the proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

In many industries, establishments making products falling into the same industry category use a wide variety of processes and materials to produce them. Also, within the same industry classification based on end products, may be included those establishments which are vertically integrated and those



which put only the finishing touches on an already highly fabricated purchased item. For example, in the refrigeration industry, there are instances of almost complete process integration in which the production of the compressor and condensing unit, electric motor, and even the castings for those intermediate products, as well as the stamping of the case and the final assembly, are all carried on at one plant. In other plants, the condensing unit, the motor, and the case may be purchased and merely assembled into the finished product.

In some instances, nonintegrated plants have been placed in separate industry categories from the integrated plants. In many industries, the census provides separate statistics on departmental operations or on the production of intermediate commodities made and used in the producing plant. When an industry includes plants which ship a significant proportion of their output to other plants of the same company, separate figures are usually shown on the interplant transfers.

These differences in the integration of production processes, types of operations, and types of materials used should be taken into account when relating the general items (employment, payrolls, value added, etc.) to the product and materials data. For those industries where the integrated type of operations is of consequence, that fact is pointed out in the explanatory text for the industry.

In many industries, there are some large plants with a product-mix such that the value of secondary products is as large as or larger than the value of primary products. In the Annual Survey of Manufactures (ASM), these plants are prevented from shifting back and forth among industries because of only minor shifts in products by the application of a "resistance formula" in assigning industry classifications.

The formula gives approximately equal weight to the need for statistical measurement of change in an industry and the measurement of an industry's status at a point in time.

The resistance technique for large establishments was introduced for the first time in the quinquennial census in 1963 and was applied to certainty cases in the ASM panel for 1963.

The 1963 industrial classification of an ASM plant with 100 employees or more was allowed change from that assigned in 1962 where—

- (1) The new primary activity constituted 60 percent or more of its total value of shipments, or
- (2) The new primary activity, while less than 60 percent, was at least twice as great as the old primary activity in the current year, or

- (3) The new primary activity, if it did not meet either of the first two conditions, exceeded the old primary activity by at least 20 percent in both the current and the preceding year.

Where the establishment's industry classification coded in the "annual survey" manner differed from that developed independently from the 1963 census report, the annual survey code took precedence, except where additional census tests not available in the annual survey justified the census code (e.g., type of materials consumed, type of operations, special inquiries).

## 7. GEOGRAPHIC AREAS

### Census Regions, Divisions, and States.—

For over a century, the Census Bureau has presented data for States and major sections of the United States related not only by geographic proximity but also by similarities of agriculture, industry, and social characteristics. Since the 1909 Census of Manufactures, the present nine Census geographic divisions have been used. Beginning with the 1939 census, the nine divisions were grouped further into four broad geographic regions: Northeast, South, North Central, and West.

Not only are these State groupings convenient for the summary presentation of data below the U.S. level, but they are essential to presenting a maximum of geographic information for those individual industries in which application of the census disclosure law precludes the publication of individual State data. (See the discussion in section 28, Confidentiality of Data for Individual Companies.) The relative importance of manufacturing among the States and divisions is shown in table E.

In Volume III, Area Statistics, industry detail is shown wherever possible under the rules of confidentiality at the regional, State, county, and standard metropolitan statistical area (SMSA) levels, in addition to the all-manufacturing totals. The level of industry detail shown for each area is as follows:

State—2-, 3-, and 4-digit industry detail;

County—2- and 3-digit industry totals, but only for those industry groups which have 500 employees or more in the industry group in the county;

City—information only at the all-manufacturing level for cities of 10,000 or more population according to the 1960 Census of Population or later special censuses conducted by the Bureau of the Census.

**Standard Metropolitan Statistical Areas.**—The SMSA's for which data are shown are those defined by the Bureau of the Budget



TABLE E. Value Added by Manufacture, Adjusted, by Divisions and States: 1963 and 1958

(Value in millions of dollars)

Division and State	1963		1958		Division and State	1963		1958	
	Value added by manufacture, adjusted	Percent	Value added by manufacture, adjusted	Percent		Value added by manufacture, adjusted	Percent	Value added by manufacture, adjusted	Percent
United States, total.....	192,103	100	141,541	100	South Atlantic--				
					Continued				
New England.....	13,589	7.1	10,440	7.4	Virginia.....	3,046	1.6	2,123	1.5
Maine.....	786	0.4	628	0.4	West Virginia....	1,887	1.0	1,269	0.9
New Hampshire....	636	0.3	491	0.4	North Carolina...	4,567	2.4	3,078	2.2
Vermont.....	309	0.2	236	0.2	South Carolina...	2,111	1.1	1,360	1.0
Massachusetts....	6,404	3.3	5,128	3.6	Georgia.....	3,254	1.7	2,102	1.5
Rhode Island.....	959	0.5	756	0.5	Florida.....	2,352	1.2	1,411	1.0
Connecticut.....	4,496	2.3	3,200	2.3	East South Central.	9,383	4.9	6,389	4.5
Middle Atlantic....	43,560	22.7	34,814	24.6	Kentucky.....	2,548	1.3	1,769	1.2
New York.....	19,559	10.2	15,892	11.2	Tennessee.....	3,303	1.7	2,207	1.6
New Jersey.....	9,957	5.2	7,500	5.3	Alabama.....	2,515	1.3	1,770	1.3
Pennsylvania.....	14,044	7.3	11,423	8.1	Mississippi.....	1,017	0.5	642	0.5
East North Central.	56,326	29.3	40,962	28.9	West South Central.	10,942	5.7	7,791	5.5
Ohio.....	15,506	8.1	11,472	8.1	Arkansas.....	961	0.5	592	0.4
Indiana.....	7,727	3.7	5,502	3.9	Louisiana.....	1,916	1.0	1,430	1.0
Illinois.....	14,640	7.6	11,664	8.2	Oklahoma.....	979	0.5	725	0.5
Michigan.....	13,090	6.8	8,364	5.9	Texas.....	7,086	3.7	5,045	3.5
Wisconsin.....	5,363	2.8	3,960	2.8	Mountain.....	3,472	1.8	2,244	1.6
West North Central.	11,809	6.1	8,870	6.3	Montana.....	236	0.1	191	0.1
Minnesota.....	2,806	1.5	2,050	1.4	Idaho.....	366	0.2	256	0.2
Iowa.....	2,287	1.2	1,684	1.2	Wyoming.....	82	0.1	63	0.1
Missouri.....	4,296	2.2	3,251	2.3	Colorado.....	1,194	0.6	782	0.5
North Dakota....	72	0.1	63	0.1	New Mexico.....	150	0.1	108	0.1
South Dakota....	140	0.1	114	0.1	Arizona.....	627	0.3	360	0.2
Nebraska.....	747	0.4	536	0.4	Utah.....	711	0.4	417	0.3
Kansas.....	1,460	0.8	1,171	0.8	Nevada.....	106	0.1	68	0.1
South Atlantic.....	21,134	11.0	14,355	10.1	Pacific.....	22,112	11.5	15,666	11.1
Delaware.....	658	0.3	420	0.3	Washington.....	3,029	1.6	2,167	1.5
Maryland.....	3,001	1.6	2,394	1.7	Oregon.....	1,575	0.8	1,222	0.9
District of Columbia.....	257	0.1	198	0.1	California.....	17,163	8.9	12,048	8.5
					Alaska.....	85	0.1	65	0.1
					Hawaii.....	261	0.1	165	0.1

Note: Detailed figures may not add to the totals because of independent rounding.

in 1964.<sup>7</sup> An SMSA is a county or group of contiguous counties (except in New England) which contains at least one central city of 50,000 inhabitants or more or "twin cities" with a combined population of at least 50,000. In addition to the county or counties, containing such a city or cities, contiguous counties are included in an SMSA if, according to certain criteria, they are essentially metropolitan in character and are socially and economically integrated with the central city. In New England, towns and cities rather than counties are the units used in defining an SMSA. Thus an area may contain not only highly industrialized counties but also adjoining counties which, though primarily residential in character, con-

tribute significantly to the industrial counties' labor force and are socially and economically integrated with the central city.

Each SMSA is designated by the name of the principal city of the area. In addition to the name of the principal city, the area title may include one or two additional city names.

Industry group (2- and 3-digit) statistics as well as all-manufacturing totals are published for SMSA's with 40,000 to 190,000 manufacturing employees. Detailed industry (4-digit) statistics are published for SMSA's with more than 190,000 employees. These industry statistics for each area are presented in table 6 in the report for each State. There are 75 SMSA's with more than 40,000 employees, and 15 with more than 190,000.

<sup>7</sup> Executive Office of the President, Bureau of the Budget, *Standard Metropolitan Statistical Areas*, 1964.

#### **Assignment of Geographic Area Codes.—**

In the census of manufactures, as in the entire economic census, each individual establishment (plant) was assigned a geographic code that indicated the State, the county, and the city in which it was located. Most manufacturing activities require a permanent structure and fixed equipment so that the location of a plant usually can be specified with little or no ambiguity. Plants which straddle boundary lines are classified as located within the more populous of the two areas in which some part of the plant is located.

In previous censuses, the geographic code was assigned manually to every report after a clerical review of the physical location reported by the respondent. In 1963, the report form was precoded by high-speed electronic equipment prior to mailing through the use of an extensive file of addresses classified by place. Only those reports which indicated differences between the mailing address and the reported physical location were manually coded after receipt.

### **8. THE CENSUS REPORT FORMS**

The diversity of manufacturing activities in the United States made it necessary to use about 200 different report forms to collect information on the products shipped and materials used by the 425 manufacturing industries. In order to obtain the data essential to the census in a manner consistent with cost considerations and reportability by the respondent, it was decided to require detail information only from larger plants. For the numerous smaller plants, typically having less detailed records and representing a very minor portion of manufacturing activity, data requirements were limited to a relatively few key items on a series of short forms. All plants in the annual survey of manufactures sample reported on standard forms irrespective of their employment size. Using the administrative records of the Social Security Administration in conjunction with existing Bureau of the Census records, it was possible to determine correctly, in most cases, the specific questionnaire each manufacturing establishment should receive.

Information was obtained on all 1963 report forms regarding the physical location, Social Security employer identification number, company affiliation, and legal form of ownership. These kinds of information were necessary to assure control over the completeness of coverage (see section 9, Development of the Mailing List), and also permitted the classification of each establishment by geographic location and type of organization. (See section 26, Special Reports.)

**Standard Forms.**—All ASM establishments and all of the larger non-annual survey establishments received the standard (long) form which contained the full census detail.

Each standard form called for the same general items regardless of the industry: Total employment, total payrolls, production-worker employment and man-hours by quarter, production-worker wages, material costs, value of shipments, fuel and electric energy costs, inventories by type, and capital expenditures by type. However, the forms differed in the detailed inquiries on the quantity and value of products shipped and the quantity and cost of individual materials consumed. There were also miscellaneous inquiries such as type of operation and equipment used, departmental inquiries, special details on delivery operations, etc., that were unique to an individual industry or industry groups.

Information on the gross book value of total fixed assets in place (structures and equipment combined) at the end of 1962 and at the end of 1963, and on rental expenditures for buildings and for equipment during 1963 was requested of establishments in the 1963 Annual Survey of Manufactures sample panel. This special information will be published beginning with the 1964 Annual Survey of Manufactures.

**Short Forms.**—A short form was mailed to establishments with less than 6 employees except in a few industries where it was sent to those with less than 10 employees. This form required considerably less detail; e.g., total employment and payrolls without any detail on production workers, cost of materials as a grand total, and value of shipments in terms of broad classes of products. No information was requested on inventories or capital expenditures.

However, for the few industries in which small plants account for a significant proportion of the total value of shipments or employment, special modifications were made to collect some detail on the individual products shipped and less frequently on the types of materials used. These industries consisted of logging and sawmills, concrete products, dairy products, meat products, and several printing and publishing industries.

**Form MA-101, Manufacturing Plants Under Construction During 1963.**—This form was designed to obtain data on capital expenditures by large manufacturing firms for new plants under construction during 1963 but not yet in operation at the end of the year. It was mailed to all multiestablishment companies with 250 employees or more. It was also mailed to any other company which indicated on one of its establishment report forms, in a special check-box section, that it had a plant under construction but not yet in operation. Each such plant was coded geographically and to a 4-digit industry from the description given of its expected activity. The information obtained on form MA-101 was integrated into



new capital expenditures figures in all tables of the 1963 Census of Manufactures. (For further discussion, see section 22, Expenditures for Plant and Equipment.)

**Form NC-X6, Central Administrative Offices and Auxiliary Establishments.**—Separate reports were required from each multi-establishment company which indicated that it was operating a separate central administrative office or auxiliary (i.e., a warehouse, a research laboratory, a garage, a repair shop, etc.) serving one or more of its operating establishments. Each auxiliary establishment for which a report on form NC-X6 was submitted was classified as to the nature of the activity it performed and as to the 2-digit industry category of the establishment(s) which it primarily served. The form requested information on employment as of March 15 and payrolls for the year, as well as a percentage breakdown of its employment total, by the type of activity that the employees were performing—administrative work, research and development work, warehousing, direct selling, etc. In addition to this information, the report form also collected data on the total sales that were made for the company from the central office or auxiliary, the cost of research and development work done, value of inventories held, and the capital expenditures for structures and equipment.

The information on the central administrative offices (CAO) and auxiliaries has been tabulated separately and appears as part of the Census Bureau's report, *Enterprise Statistics 1963*, Part 2, Central Administrative Offices and Auxiliaries. In that publication, information will appear not only by 2-digit industry of the establishments served but also by type of function performed and industry category of owning company. In the census of manufactures, the employment and payrolls of central administrative offices and auxiliaries serving manufacturing have been added to the

figures for operating establishments into the State, county, standard metropolitan statistical area, and city all-manufacturing totals. Wherever industry detail is provided, the employment and payroll at the central administrative offices and auxiliaries appear as a separate 2-digit industry category at the end of the list of industries. In the manufacturing sector, in 1963, there were approximately 5,300 such establishments which accounted for 726 thousand employees with payrolls of \$6.6 billion, representing 4 percent and 7 percent, respectively, of the totals of all manufacturing employment and payrolls. It should be noted also that employment of CAO's has been increasing more rapidly than employment of operating establishments, partially the result of the tendency of larger companies to centralize operations formerly carried on a decentralized basis at each plant. (See table F.)

#### Other Related Forms in the 1963 Economic Censuses:

**Form NC-KL, Company Summary Report Form.**—This form requested, for the consolidated company, information on payrolls, employment, sales or receipts, inventories, capital expenditures, value of assets, and rental payments. It was restricted to companies with 250 employees or more in the industries included in the economic censuses.

Based on information filed on the establishment reports of the multiestablishment companies, the entire company was classified into 1 of 179 enterprise industry categories developed by grouping the Standard Industrial Classification industries. A special report, *Enterprise Statistics, 1963*, Part 1, General Report on Industrial Organization, provides tables showing the characteristics and diversification of these multiestablishment companies as derived from the information on census establishment reports.

TABLE F. Comparison of Employment and Payrolls at Operating Manufacturing Establishments and Central Administrative Offices and Other Auxiliaries Serving Them

Period	Operating establishments		Central administrative offices and auxiliaries <sup>1</sup>			
	Employees (1,000)	Payrolls (billion dollars)	Employees (1,000)	Payrolls (billion dollars)	As a percent of total <sup>1</sup>	
					Employees	Payrolls
1963.....	16,234	93.3	726	6.6	4.3	6.6
1958.....	15,423	73.9	602	4.5	3.8	5.7
1954.....	15,645	63.0	453	2.9	2.8	4.4
Percentage increase:						
1958 to 1963.....	6	26	20	47	(X)	(X)
1954 to 1958.....	-1	17	33	54	(X)	(X)

X Not applicable.

<sup>1</sup>The total is the sum of operating establishments plus auxiliaries.

*Form CB-51, Wholesale Sales Branches and Sales Offices of Manufacturing Companies.*—As part of the census of business, information was collected on the sales branches and sales offices of manufacturing companies. In addition to figures on employment and payrolls, these forms requested information on inventories held at and sales, by merchandise line, from these locations. The merchandise lines in the census of business for these wholesale branches and offices are very similar to the classes of products used in the manufacturing area. The totals of the two areas cannot be directly compared inasmuch as the sales from the sales branches and offices include products which were bought and resold as well as those of the company's own manufacture.

*Special Surveys Relating to the 1963 Census of Manufactures.*—In addition to the information collected on the standard 1963 census of business, manufactures, and mineral industries forms, additional information was collected on special survey forms. The census of manufactures publications also contain the data collected in these various special but related surveys, as described below. The publications, described below, appear as chapters in Volume I, Summary and Subject Statistics.

*Form MC-D3, Department of Defense Establishments, and MC-D4, Penal Institutions* were used to collect information on government-owned and government-operated manufacturing establishments. These forms were used to collect information on two types of establishments: (1) Manufacturing facilities owned and operated by the Department of Defense, and (2) prison industries (Federal, District of Columbia, and State). The data were prepared with the cooperation of the Department of Defense, the Department of Justice, and the District of Columbia and State prison systems. For Department of Defense installations, information is provided on employment, man-hours, payrolls, cost and value of work done, by industry group and by State. For prison industries, however, only product data is included in the census of manufactures reports. For a detailed description of the methods used to collect this information and the data presented, see the Special Report, Manufacturing Activity in Government Establishments, at the end of this volume.

*Form MC-D12, Supplementary Inquiries for 1962.*—In order to reduce the burden of the 1963 census on the respondent and the Census Bureau, information on horsepower rating of equipment in place by type of equipment, fuels consumed by the type of fuel, and electric energy was collected for 1962 and restricted to those establishments included in the annual survey of manufactures. In previous censuses, this information had been requested

on the standard census forms. Information is published on these items by industry, by State, and by standard metropolitan statistical area. Within State or standard metropolitan statistical area, 2-digit industry detail is provided wherever possible. For details on this special survey, see Volume I, Summary and Subject Statistics, chapters 6 and 7.

*Form MA-175, Report on Shipments to or Receipts for Work Done for the Federal Government Agencies and Their Contractors and Suppliers for 1963.*—To measure the impact of government procurement on the economy and on geographic areas, form MA-175 was mailed to approximately 2,500 annual survey of manufactures establishments accounting for over 95 percent of all shipments and receipts of 30 defense-oriented industries which account for the major portion of government procurement. The survey provided information on the value of products shipped to or receipts for work done for Federal agencies, their contractors, subcontractors and suppliers. The information was further subdivided into shipments or receipts on government prime contracts and to other manufacturers in the ultimate performance of Federal Government contracts.

Information on employment and value of shipments by class of product and by Federal agency is provided. Likewise, information is available for States and SMSA's by broad industry groups within each geographic area wherever possible.

*Special Survey Form MA-161, Origin of Exports of Manufactured Products.*—This report form was mailed to a special subsample of the annual survey of manufactures plants with 100 employees or more and exporting more than \$25 thousand per year. The report provides information on the value of manufacturers' exports by State, standard metropolitan statistical area, and by industry of the producing plant.

*MC-D13, Industrial Water Use, 1964.*—This special survey, although collecting data for the year 1964, was conducted as part of the 1963 Census of Manufactures. The form was mailed to approximately 10,000 establishments which had indicated on their census of manufactures form consumption of 20 million gallons or more of water in 1963. Information is provided on water intake and discharge by industry and by area.

## 9. DEVELOPMENT OF THE MAILING LIST

The manufacturing plants included in the census of manufactures were identified as part of the overall program to develop the mailing list for the 1963 censuses of business, manufactures, and mineral industries.



The Internal Revenue Service (IRS) maintains a comprehensive list of names and addresses of legal entities with one employee or more which are required to file quarterly tax returns under the Federal Insurance Contributions Act. To each of these legal entities, IRS has assigned a unique employer identification (EI) number. Arrangements were made to obtain this list of EI numbers for the selection of those companies which were to be included in the 1963 censuses of business, manufactures, and mineral industries. Since this list contained many companies not within the scope of the economic censuses, it was matched to a similar list of EI numbers maintained by the Social Security Administration (SSA). In cooperation with IRS, the SSA assigns an industry code to every EI number based on information reported by the taxpayer when he applied for an EI number. Only those EI numbers with industry codes within scope of the economic censuses were included in the basic mailing list.

This list of EI numbers provided the industry code necessary to select the current report form and a payroll size code to determine whether a standard or a short form was to be mailed. However, the list was defective in one basic respect: The EI number applies to a legal entity and not to an individual establishment, the basic unit for which census data is required.

Therefore, it was necessary to supplement this list by contacting all known or possible multiestablishment companies to obtain a list of their individual plants or business locations. In January of 1963, a prec canvass form (NC-X1, Listing of Establishments) was sent to all companies that had indicated in the 1958 Census of Manufactures or the 1962 Annual Survey of Manufactures that they were operating at more than one location. In addition, all "apparent" single-establishment companies in the IRS-SSA file of EI numbers with sizeable employment were included in this prec canvass.

For the known multiestablishment companies, the Census Bureau prelisted the establishments as they had been last reported to the Census Bureau (the 1958 census except for the manufacturing companies which had reported for their manufacturing establishments in the 1962 Annual Survey of Manufactures). The company was requested to update this list by deleting closed locations, correcting the addresses, reporting the current EI numbers used for each plant, as well as adding any locations operated but not already included in the listing. The EI numbers reported for these multiestablishment companies were excluded from the list of EI numbers obtained from IRS-SSA prior to mailing the 1963 census report forms. Thus, the 1963 Census of Manufactures list for single-establishment companies was obtained from the IRS-SSA, but the list of plants of mul-

tiunit companies was obtained directly from those companies by a special precensus survey.

While the IRS-SSA list was generally adequate in providing sufficient industry and size information to determine the proper form for mailing, a number of the EI numbers did not have precise industry or size information associated with them. A special form (NC-X3, General Report) was mailed to all such companies in the 1963 censuses of business, manufactures, and mineral industries. Since it was assumed that these establishments were quite small, only limited statistics were required. On the basis of the information reported, these establishments were coded and included in the basic tabulations. If the NC-X3 indicated substantial activity, the company was recontacted with a standard census form.

The 1963 census was distributed and returned by mail. The very large complex multiestablishment companies were mailed their report forms in November 1963 to give them as much lead time as possible to meet the substantial demands of the 1963 census on their statistical staffs. Report forms for the smaller companies were mailed in January 1964. Collection was completed by August 1964. All mailing and receiving, including the various reminder mailings as well as routine editing, coding, and card punching, was done at the Census Bureau's Operations Office in Jeffersonville, Ind. The more difficult problem reports and all reports from very large companies were sent to Washington for review prior to punching. The punched data were transmitted to Washington through a telephone computer link-up and all computer processing, review of the tabulated data, and the preparation of the publications were performed there.

## **10. COMPLETENESS OF COVERAGE AND ACCURACY OF THE DATA**

Since the 1963 mailing list was considered to be complete, no field coverage check was conducted. There was a concerted effort to assure completeness of coverage through systematic reminders at 4- to 6-week intervals including the use of certified mail, telegrams and, for the larger companies, telephone calls.

Considerable attention has been devoted to assuring completeness and correctness of the reporting by large companies. In the early stages of processing, the individual establishment reports of the very large companies were reviewed along with the company summary report, form NC-K1, to make certain that the company had included reports for all its establishments and subsidiaries and that there was no duplication in reporting among manufacturing, minerals, central offices, and sales branches and offices. The NC-K1 was also a vehicle for the company to report changes in ownership since the census prec canvass was



conducted in the preceding year. Accurate company affiliation information is necessary, it should be noted, to enable the Census Bureau to review the tabulations to assure confidentiality of the data; to provide statistics for the "enterprise statistics" program; and, in manufacturing, to prepare the company concentration ratios by industry and product class. Part 2 of form NC-K1 required that the parent company reconcile its payroll figures by employer identification numbers filed with the Internal Revenue Service to those reported on the individual censuses of manufactures, business, and mineral reports. As a result of this comparison, omissions were detected as well as duplication of the reporting within the census establishment file.

As part of the computer edit of the data, all "annual survey of manufactures" establishments in the census were matched to the list of establishments in the 1962 Annual Survey of Manufactures. All large unmatched establishments were reviewed to make certain that plants which changed ownership, were newly established, or had been closed down since 1962 were properly handled. Furthermore, during the review of the published data, whenever there was a significant change from the previous year in the totals for each industry or geographic area, the reports were checked out individually to make certain that there was no inadvertent omission or duplication in reporting between years, and that the change was valid.

All report forms in manufacturing were audited by the computer. The figures reported in 1963 by each of the 60,000 annual survey of manufactures establishments were compared to those reported in 1962. Establishments with significant increases or decreases in any data item or with significant changes in selected operating ratios (e.g., cost of materials per dollar of shipments, payroll per employee, production-worker wages per man-hour, etc.) were identified for subsequent review by the Bureau's statisticians. Small establishments with problems were tentatively accepted or modified by the computer but annotated for subsequent examination.

The operating ratios of the 250,000 smaller establishments not in the annual survey of manufactures were edited against industry averages developed from the 1958 Census of Manufactures and brought up to date through the 1962 Annual Survey of Manufactures data. In the review of the tabulations prior to the publication of the final reports, the selected operating ratios for all establishments were analyzed and the mean ratio for all establishments in each industry determined. A frequency distribution of establishments according to operating ratio class was prepared, and those establishments whose ratios were more than two standard deviations from the industry

average were isolated as "outliers," examined and, if necessary, corrected. A similar type of analysis was made for the individual products shipped and the individual materials consumed. A unit value was calculated for each item reported by an establishment. An industry average unit value was also calculated and a frequency distribution tabulation of unit values prepared. Extreme unit-value cases were isolated and corrected during the preliminary and final table review.

## **II. EXPLANATIONS OF TERMS USED IN COLLECTION AND PUBLICATION OF DATA**

### **11. EMPLOYMENT AND RELATED ITEMS—GENERAL**

The census of manufactures provides information on employment and payrolls at operating establishments and central administrative offices and auxiliaries. The standard form for operating establishments collected the number of production workers by quarter and all other employees as of the 15th of March, as well as annual payrolls for production workers and other employees separately. Form NC-X6, Central Administrative Offices and Auxiliaries, collected figures on employment as of March 15 and payrolls for the year.

In presenting the data, the employment and payrolls of central administrative offices and auxiliaries which serve manufacturing plants are included in the all-industries totals in every summary table (U.S., State, standard metropolitan statistical area, county, and city). However, whereas the operating establishments were coded to a 4-digit manufacturing industry, the administrative offices and auxiliaries were coded only to the 2-digit industry group of the establishments they served. Thus, in all tables with industry detail, the administrative offices and auxiliaries are shown as a separate industry group following the industries in Major Groups 39 and 19.

Separate statistics for all central administrative offices and auxiliaries including those of nonmanufacturing companies will be published as part of the 1963 censuses of business, manufactures, and mineral industries in *Enterprise Statistics 1963*, Part 2, Central Administrative Offices and Auxiliaries. In that publication, information will appear not only by 2-digit industry of the establishments served but also by type of function performed and industry category of owning company.

### **12. EMPLOYMENT OF OPERATING MANUFACTURING ESTABLISHMENTS**

**All Employees.**—The category "all employees" comprises all full-time and part-time employees on the payrolls of operating manufacturing establishments who worked or re-



ceived pay for any part of the pay period which included the 12th and ended nearest the 15th of the months specified on the report form. At the all-industry level, the employees of central administrative offices and auxiliaries are included. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees; proprietors and partners of unincorporated firms, however, are excluded from the total.

#### **Production and Related Workers.—**

This category comprises workers (up through the working foreman level) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping (but not delivering), maintenance, repair, janitorial, watchman services, product development, auxiliary production for plant's own use (e.g., power plant), recordkeeping, and other services closely associated with these production operations at the establishment covered by the report. Supervisory employees above the working foreman level are excluded from this category.

**All Other Employees.**—"All other employees" are nonproduction personnel of the manufacturing establishment, including those engaged in the following activities: Factory supervision above the working foreman level, sales (including driver salesmen), sales delivery (highway truck drivers and their helpers), advertising, credit, collection, installation and servicing of own products, clerical and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria, medical, etc.), professional, and technical. Also included are employees on the payroll of the manufacturing establishment engaged in the construction of major additions or alterations to the plant and utilized as a separate work force.

**Average Employment.**—The 1963 Census of Manufactures report forms requested employment figures for "production and related workers" for four selected pay periods (i.e., production worker midmonth employment in March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" of operating establishments is composed of an average of the four monthly figures for the "production workers" plus the March figure for "all other employees."

This approach was initiated in the intercensal annual surveys of manufactures to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay

periods approximates very closely the average employment for the year that would be obtained from the 12 pay periods for almost all industries.

The employment figure shown for all industries in most tables is the 4-month average.

For a few highly seasonal industries, production-worker figures were collected for all 12 months and are shown in Volume II, table 3, for those industries.

### **13. PAYROLLS OF OPERATING MANUFACTURING ESTABLISHMENTS**

For each industry, this total includes the gross earnings paid in the calendar year 1963 to all employees on the payroll of operating manufacturing establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Also excluded are payments to members of Armed Forces and pensioners carried on the active payroll of manufacturing establishments.

The 1963 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is also the same as the 1958 census definition. It should be noted that this definition does not include employers' Social Security contributions, or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment figures, the payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are not included in the totals for individual industries or industry groups.

### **14. MAN-HOURS OF PRODUCTION AND RELATED WORKERS**

This total consists of all plant man-hours of production and related workers as defined above. It represents all man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours.) It excludes hours paid for vacations, holidays, or sick leave, when the employee was not at the plant. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.



Man-hours were generally well reported except in some industries, like apparel, where work is commonly performed on a piece-rate basis. However, man-hours were not collected for the very small establishments which were mailed special short forms (see section 8). Experience has shown that these small establishments have difficulty in distinguishing between production and other types of employees. Man-hours were estimated for these small establishments as well as for other nonreporters. Because estimating was largely confined to small establishments, there is no significant qualification to the validity of overall industry and geographic area totals for man-hours, except for sawmills and a few other industries characterized by small establishments. However, the man-hour figures for establishments with fewer than 10 employees, shown in the size of establishment tables, should be interpreted with this factor in mind.

## 15. MATERIALS

**Cost of Materials, Etc., Consumed.**—A summary inquiry on the 1963 census report forms requested information on the cost of materials, supplies, semifinished goods, fuels, and electric energy, actually consumed or put into production during the year and the cost of products purchased for resale, by each manufacturing establishment, whether purchased, withdrawn from inventories, or received from other establishments of the company. Included also were the costs of materials supplied by the establishment which were processed elsewhere on contract for the establishment. (The products produced elsewhere under contract for the establishment are included in the value of shipments of the establishments; see section 16, value of shipments).

"Cost" was defined as the direct charges actually paid or payable for items consumed or put into production during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring the materials.

To arrive at the industry total "cost of materials, etc.," separate figures were obtained for (a) the total delivered cost of all raw materials, semifinished goods, parts, components, containers, scrap, and supplies consumed or put into production in 1963; (b) the amount paid for electric energy purchased; (c) the amount paid for all fuels consumed for heat, power, or the generation of electricity; (d) the cost of work done by others on materials or parts furnished by manufacturing established (contract work); and (e) the cost of products bought and resold in the same condition.

It should be noted that the cost of fuel consumed under "c" above does not include fuel used as a material in the manufacturing process; for example, coal used in the produc-

tion of coke. Such costs were included with other materials cost in category "a" above.

The total excludes the cost of services used, such as advertising, insurance, telephone, etc., and developmental, research, and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc., and it excludes materials, machinery, and equipment used in plant expansion or capitalized repairs which are chargeable to fixed assets accounts.

For materials received from other plants of the same company or from a central materials depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that reported costs equaled the value of shipments reported for the items by the company's plant which produced and transferred the goods plus the freight and other direct charges (see value of shipments, section 16).

A summation of industry cost of materials figures to industry group totals results in large and unknown amounts of duplication, owing to the addition of costs reported by related industries engaged in successive fabrication stages in the production of finished manufactured products. For this reason, cost-of-materials figures shown at the industry group (2- and 3-digit) and all-industry levels must be used with caution. With some important exceptions (such as refrigeration machinery, radios and television receiving sets, and motor vehicles and parts), this duplication is not significant within individual 4-digit industries.

**Individual Materials Consumed.**—In addition to the total cost of materials which every establishment was requested to report, quantity and cost information was collected on 633 specific materials.

Of these materials, 314 were "complete coverage" materials; i.e., every industry that consumed appreciable quantities of the material was canvassed so that the data would represent at least 90 percent of manufacturing consumption. For the remaining 319 "partial coverage" materials, information on consumption was obtained on a more limited basis, generally only in those industries in which the materials were important inputs. Consumption information was also collected for an additional 492 items which were produced and consumed in the same plant as part of the product sections of the report forms.

Because American industry uses an enormous variety of materials, the number of materials for which "complete coverage" consumption data (90 percent or higher) were ob-



tained had to be strictly limited. The selection of a particular material for such coverage was, therefore, based on the following criteria:

- (1) The importance of the material as measured by the total value of U.S. consumption of the material;
- (2) The percentage of total consumption accounted for by manufacturing establishments;
- (3) The availability of consumption information from manufacturers' records; and
- (4) In certain instances, other factors such as the strategic importance of the material or the availability of historical data on the use of the material.

The materials included on a limited coverage basis were chosen not only because they constituted important inputs for particular industries but frequently because they provided information necessary to classify plants by SIC industry.

The individual materials are shown by industry of the consuming establishment in Volume II, table 7's. In Volume I, Summary and Subject Statistics, information is shown for most of the complete-coverage materials according to industry and geographic area of consuming establishment.

The data on materials consumed relate generally to the quantity and cost of materials purchased or transferred from other plants of the same company. However, for selected materials which are also importantly produced for use within the same establishment, information was requested on such "captive" production in quantity terms only.

Some undercoverage exists in the statistics for most individual materials. The undercoverage results from the fact that:

- (1) Individual materials consumption information was obtained only from establishments using one of the census of manufactures standard forms, except on industries for which the short forms were modified to request consumption of a limited number of important materials. For the most part, therefore, plants with a very small number of employees are not represented in these statistics.
- (2) Establishments consuming less than a specified amount of material were not requested to report consumption of the material separately. For the majority of individual materials, the minimum amount was \$5,000.

The use of such cutoffs, as well as the use of short forms, is not believed to have had a significant effect on the totals for most materials. However, for industries where a sizeable proportion of the activity is accounted for by small establishments or where a specified material is used in relatively small quantities, the above limitations may be of some consequence.

## 16. PRODUCTS

**Value of Shipments.**—Except in a few industries, the respondents were instructed to report net selling values, f.o.b. plant, after discount and allowances and excluding freight charges and excise taxes. In a few industries, specifically noted in the text of the industry chapters, Volume II, delivered prices were acceptable if delivery was included as an integral part of the plant operations, such as in the milk and bakery industries.

Manufacturers were asked to include as products shipped, not only the products made in the establishment but also those made elsewhere under contract from the materials owned by the establishment. Included were all products sold, transferred to other plants of the same company, or shipped on consignment.

In addition, manufacturers reported receipts for contract work performed for others, resales (i.e., the value of all products resold without further processing), receipts for miscellaneous activities such as sale of scrap and refuse, and the value of installation and repair work performed by the plant employees. Although the value of products bought and resold without further processing is included in the value of shipments totals for each industry, it is excluded from the figures for individual products or classes of products.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; i.e., to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

**Individual Products.**—In the 1963 census program, information was collected on the output of approximately 10,000 individual product items. The term "product" as used in the census of manufactures represents the finest level of detail for which output information was requested. Consequently, it is not necessarily synonymous with the term product as used in the marketing sense. In some cases it may be much more detailed and in other cases it is more aggregative. For example, "pharmaceutical preparations" was distributed



into nearly 100 items, whereas, "automotive gasoline" was reported as a single item.

Some 6,000 of the product items were listed separately on the 1963 census report forms. Data for the remaining 4,000 products were obtained in the monthly, quarterly, or annual surveys comprising the Current Industrial Reports series of the Census Bureau.<sup>8</sup> Totals for the year 1963 for these items as derived from the commodity surveys are shown in the "products shipped" table (table 6) in the industry chapters of Volume II together with the tieline total value collected in the census for reconciliation. Appendix F contains a complete listing of the surveys in the Current Industrial Reports program with page references in Volume II where the data appear.

The list of products for which separate information was collected was prepared after consultation with industry and government representatives. Comparability with previous figures was given considerable weight in the selection of product categories so that comparable 1958 information is presented for most products.

Typically, both quantity and value of shipments information was collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected.

As mentioned earlier, shipments include both commercial shipments and transfers of products to other plants of the same company. For industries in which a considerable portion of the total shipments are transferred to other plants of the same company, separate information on interplant transfers was also collected. Moreover, for products which are used to a large degree within the same establishment as materials or components in the fabrication of other products, total production and often consumption of the item within the plant was collected. Typically, the information on production was also collected for products for which there are significant differences between total production and shipments in a given year because of wide fluctuations in finished goods inventories. Alternate measures of output of products, such as value of work done for products with long production cycles, were used as appropriate and feasible.

**Classes of Products.**—For the purpose of summarizing the product information, the separate products were aggregated into classes of products which were, in turn, grouped into all primary products of each industry. The code structure used is a 7-digit number for the individual product, a 5-digit code for the class of product, and a 4-digit code for the total pri-

<sup>8</sup> See 1963 Census of Manufactures, MC63-2, *Numerical List of Manufactures Products*, and MC63-1, *Alphabetic List of Manufactures Products*.

mary products in an industry (see section 6 for application of coding structure to the assignment of SIC codes for establishments).

The 10,000 product items in the 1963 census (including products from the Current Industrial Reports program) were grouped into approximately 1,100 separate classes. Products were grouped into product classes to bring out significant differences in the broad types of products within a 4-digit industry. General similarity of the kind or purpose of the products or of the manufacturing processes, type of markets, or of materials used, were the basis for product combinations. The economic significance of the class was also taken into account; residual products of an industry were grouped when the products were not sufficiently significant in dollar value to warrant separate classes.

As a result of the increased number of respondents included in the product-class shipments totals, these categories lend themselves to many more cross tabulations than do the 7-digit products, without disclosing information about the operations of individual companies. In the industry chapters of Volume II, table 6D provides information on the value of shipments of product classes by State; and table 5B, by industry of the establishment producing them. The latter table is the best vehicle for showing the primary and secondary product mix of an industry, as well as the interrelationship between the 4-digit industry value of shipments and the 4-digit product group value of shipments. In table 8, the product class is used to provide finer industry-type general statistics by classifying establishments within an industry according to the degree to which they specialize in producing a specific class of products.

The class of product concept was incorporated by the Census Bureau into its own program with the 1947 Census of Manufactures after it developed the technique in the compilation of World War II production statistics. Product classes formed the basis of collecting product information in the annual survey of manufactures when that survey was initiated in 1949. The classes have been revised over the succeeding years to improve the balance and significance of product combinations within each industry and to keep abreast of the growth and decline of products.

## 17. INDEXES OF PRODUCTION AND UNIT VALUE.

Based on the type of quantity and value statistics shown in table 6A's of the Industry Volume, preliminary indexes of production and unit value (value of shipments divided by quantity of shipments) have been constructed for the primary products of the industry produced or shipped by all producers, including those in other industries. These indexes are shown in table 6B's of the industry



chapters. The 1958 unit values were used as weights in construction of a weighted aggregative production index. A unit-value index, weighted by quantity of production or shipments, was also constructed. The latter index was used, where necessary, to deflate value of shipments of products for which no satisfactory quantity data were available.

A special census of manufactures report will be issued, in cooperation with the Federal Reserve Board, on indexes of production, consolidating the information shown in the 6B tables into group and total indexes and discussing in some detail the objectives and methodology of the indexes and the data problems and limitations. That report will contain revisions of the table 6B indexes and will include indexes for some industries not previously published.

## **18. INDUSTRY AND COMMODITY APPROACHES TO VALUE OF SHIPMENTS**

In the census of manufactures tables, value of shipments figures are shown for 4-digit industry and 4-digit product groups which are primary to an industry. Both categories are identified by the same 4-digit number and title. However, the two sets of figures must be distinguished carefully in use.

Under the industry approach, each plant is assigned to one or the other of the approximately 425 4-digit industries. This is done primarily to secure information on payrolls, man-hours, cost of materials, value added by manufacture, and other matters which relate to the operations of the entire plant. As part of this process, the entire shipments of the plant are also assigned to a particular industry. This will include its output not only of products classified in the industry (primary products) but of products classified in other industries as well (secondary products) and miscellaneous receipts and resales. The value of shipments on an industry basis appears in tables described as "General Statistics" (e.g., most tables in Volume I; and tables 1, 2, 3, 4, and 8 in Volume II).

Tables 6A through 6C in the industry chapters of Volume II are tabulated on a commodity basis and provide value-of-shipments figures for 4-digit product groups as well as 5-digit product classes and 7-digit products on a wherever-made basis. The 4-digit value figures are derived by aggregating the values of individual products (or product classes) shipped, irrespective of the industry code of the establishment shipping them. Thus, the 4-digit product-group total avoids the complications of secondary products and miscellaneous receipts inherent in the 4-digit industry value of shipments.

From census to census, the value figures for some 4-digit product groups show

greater stability than the comparable 4-digit industry value of shipments. The latter includes the contribution of some establishments which are highly diversified and only marginally coded to the industry. Minor and temporary shifts in product mix could reclassify such establishments from one industry to another without any substantial or permanent change in their operations. In the annual survey of manufactures and the 1963 Census of Manufactures, this erratic shifting was minimized by the application of a resistance factor which required that large establishments (100 employees or more) be reclassified only if there was a very substantial shift in product mix or evidence that the newer product mix remained stable over a number of years. (See also section 6 above.)

## **19. DUPLICATION IN COST OF MATERIALS AND VALUE OF PRODUCTS**

The aggregate of the cost of materials and value of shipments figures for industry groups and for all manufacturing industries includes large amounts of duplication since the products of some industries are used as materials by others. With some important exceptions, such as motor vehicles and parts, this duplication is not significant within individual 4-digit industries. However, it is significant at the 2-digit and 3-digit industry groups because these totals often include industries which represent successive stages in the production of a finished manufactured product. Examples are the addition of flour mills to bakeries in the "Food Group" and the addition of pulp mills to paper mills in the "Paper and Allied Products Group" of industries. Estimates of the overall extent of this duplication indicate that the value of manufactured products exclusive of such duplication—the value of finished manufactures—tends to approximate two-thirds of the total value of products reported in the census of manufactures.

Because the amounts of duplication contained in the cost of materials and value of products figures cannot be measured with any degree of precision, these data are not shown in the geographic area tables (Volume III) and caution is urged with their use when they are provided at the 2- and 3-digit industry group level in Volumes I and II.

Even where no significant amount of duplication is involved, value of shipments figures are deficient as measures of the relative economic importance of individual manufacturing industries or geographic areas because of the wide variation in ratio of materials, labor, and other processing costs to value of shipments, both among industries and within the same industry.

The difference between the industry and the commodity approach can be illustrated by the example of fabricated structural steel.

While the major share of the output of these products comes from plants which are principally engaged in their production, substantial quantities are also manufactured by plants classified in other industries, such as boiler-shop products, sheet-metal work, and miscellaneous metal work. At the same time, plants classified in the fabricated metal products industry also manufacture products of other industries. The resultant overlapping is evident from the excerpt from table 5B in the Industry Volume, below.

Thus, it will be seen that of the total shipments of \$1,916 million by plants classified in the fabricated structural metal industry, \$1,432 million consisted of products of this industry, while \$237 million consisted of products of other industries, and \$247 million of miscellaneous receipts. Shipments of fabricated structural steel products totaled \$1,604 million, of which \$172 million was contributed by plants classified in other industries.

It should be noted that the figures shown in table 5B for the total value of shipments of the 5-digit product classes and the 4-digit product groups are the subtotals and totals of the individual products in table 6A which bear the same first 5-digit and 4-digit code numbers.

In order to measure the extent to which industry and product statistics may be compared, two measures have been developed—the “specialization ratio” and the “coverage ratio.” The specialization ratio measures the extent to which the plants in an industry spe-

cialize in making the products primary to that industry. It is derived by dividing the total output (both primary and secondary products) of the industry's plants into their output of products primary to the industry. Thus, in the above illustration, the specialization ratio is 0.86; that is, shipments of fabricated structural steel products account for 86 percent of all products made and shipped by plants in that industry ( $1,432 \div 1,669 = .86$ ). The coverage ratio measures the extent to which the products primary to an industry are shipped by plants classified in that industry. In the illustration, the coverage ratio is 0.89; that is, 89 percent of all shipments of fabricated structural steel products was made by plants primarily engaged in the manufacture of these products ( $1,432 \div 1,604 = .89$ ). These ratios appear in tables 1 and 5A in the industry chapters, Volume II, and in appendix B, industry descriptions, Volumes I and III.

In table G, industries are grouped by 1963 specialization and coverage ratios. In 1963, as in 1958, approximately 95 percent of manufacturing employment is included in industries with specialization of 80 percent or higher. Nine of 412 industries, for which the industry (primary product) specialization ratio was published for 1963, had ratios of 100 percent and 218, with 56 percent of the employment in all industries for which the ratios were published, had ratios between 90 and 99 percent. Only 29 of the 412 industries showed ratios below 80 percent. The higher the ratio, the smaller the output of secondary products; conversely, the lower the industry specialization

Excerpt from table 5B in Industry Chapters— INDUSTRY PRODUCT ANALYSIS—VALUE OF SHIPMENTS: 1963  
(Millions of dollars)

Product class code	Class of products and miscellaneous receipts	All industries	Fabricated structural metal (SIC 3441)	Other industries
	Total shipments of the industry.....	(X)	1,916	(X)
3441-	Fabricated structural steel, total.....	1,604	1,432	172
34411	Fabricated structural metal for buildings.....	984	894	190
34412	Fabricated structural metal for bridges.....	225	210	215
34413	Other fabricated structural metal.....	287	221	366
34410	Fabricated structural metal, n.s.k.....	108	107	1
.....	Secondary products.....	(X)	237	(X)
.....	Miscellaneous receipts (contract work, repair work, sales of scrap, resales, etc.).....	(X)	247	(X)

<sup>1</sup>Includes \$21 million shipped from industry 3443, boiler shop products; \$11 million shipped from industry 3444, sheet-metal work; \$10 million from industry 3449, miscellaneous metal work, n.e.c.; and \$7 million from industry 3731, shipbuilding and repair.

<sup>2</sup>Includes \$2 million shipped from industry 3443, boiler shop products.

<sup>3</sup>Includes \$9 million shipped from industry 3443, boiler shop products, and \$2 million from industry 3446, architectural metal products.

<sup>4</sup>Includes the following products: 34421, metal doors and frames (except storm doors), \$7 million; 34422, metal window sash and frames (except storm sash), \$3 million; 34432, fabricated steel plate, \$31 million; 34438, metal tanks and vessels, custom fabricated at the factory, \$7 million; 34441, sheet-metal roofing, siding, and drainage equipment, \$15 million; 34442 culverts, flumes, irrigation pipes, \$8 million; and 34443, other sheet metal work, \$8 million.



TABLE G. Frequency Distribution of Industries by 1963 Primary Product Specialization and Coverage Ratios

Ratio class	Primary product specialization ratio			Coverage ratio		
	Number of industries	Employees		Number of industries	Employees	
		Number (1,000)	Percent of total		Number (1,000)	Percent of total
Total.....	<sup>1</sup> 412	15,937	100	<sup>2</sup> 413	15,494	100
100 percent.....	9	163	1	15	583	4
90 to 99 percent.....	218	8,954	56	186	8,220	53
80 to 89 percent.....	156	5,760	36	121	4,021	26
70 to 79 percent.....	21	631	4	45	1,436	9
60 to 69 percent.....	6	409	3	23	672	4
Under 60 percent.....	2	20	( <sup>3</sup> )	23	562	4

<sup>1</sup>Excludes 13 industries with 297 thousand employees.

<sup>2</sup>Excludes 12 industries with 740 thousand employees.

<sup>3</sup>Less than 0.5 percent.

ratio, the higher the output of secondary products. Lower industry specialization ratios give evidence of diversity of output by an industry and overlap with other industries. Over time, decreasing industry specialization ratios would be a manifestation of the need for revision of the classification structure.

## 20. VALUE ADDED

Value added by manufacture is derived by subtracting the total cost of materials (including materials, supplies, fuel, electric energy, cost of resales and miscellaneous receipts) from the value of shipments (including resales) and other receipts and adjusting the resulting amount by the net change in finished products and work-in-process inventories between the beginning and end of the year.<sup>9</sup>

<sup>9</sup>For a few industries (e.g., aircraft, ship building) where value of work done is substituted for value of shipments, no adjustment is made for change in inventories. In a few other industries where value of production is collected, the inventory adjustment is made only on the basis of change in work-in-process inventories.

Value added avoids the duplication in the value of shipments figure which results from the inclusion of the shipments of establishments producing materials and components along with the shipments of establishments producing finished products. It does not exclude, as described in the paragraph below, purchased services. Nevertheless, it is considered to be the best value measure now available for comparing the relative economic importance of manufacturing among industries and geographic areas.

Value added by manufacture should not be confused with "national income originating in manufacturing," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), Department of Commerce. (See tables H and I.) The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of manufactures. "Income originating" excludes,

TABLE H. Comparison of National Income Originating in Manufacturing and Value Added by Manufacture

(In billions of dollars)

Year	National income originating in manufacturing <sup>1</sup>	Value added by manufacture	Col. (1) divided by col. (2)	Year	National income originating in manufacturing <sup>1</sup>	Value added by manufacture	Col. (1) divided by col. (2)
1963.....	143.8	192.1	0.75	1956.....	113.1	144.9	0.78
1962.....	137.0	179.3	0.76	1954.....	94.6	117.0	0.81
1961.....	125.1	164.2	0.76	1947.....	59.5	<sup>2</sup> 74.3	0.80
1960.....	125.8	164.0	0.77	1939.....	18.1	24.5	0.74
1959.....	124.0	161.3	0.77	1935.....	13.4	18.5	0.72
1958.....	107.7	141.5	0.76	1933.....	7.7	14.0	0.55
1957.....	116.3	147.8	0.79	1929.....	21.9	30.6	0.72

<sup>1</sup>Source: National Income and Product Accounts of the U.S., Survey of Current Business, August 1965, p.42; July 1966, p. 15.

<sup>2</sup>1947 and earlier figures are unadjusted value added.

TABLE I. Comparison of National Income Originating and Value Added, by Major Industry Group: 1963

(In billions of dollars)

Code	Industry group description	National income originating <sup>1</sup>	Value added by manufacturing	Col. 1 divided by col. 2
	Manufacturing.....	143.8	192.1	0.75
	Nondurable goods.....	57.5	83.4	0.69
20	Food and kindred products.....	13.4	21.8	0.61
21	Tobacco manufactures.....	1.2	1.7	0.71
22	Textile mill products.....	4.7	6.1	0.77
23	Apparel and other fabricated textile products.....	5.6	7.9	0.71
26	Paper and allied products.....	5.1	7.4	0.69
27	Printing, publishing, and allied industries.....	7.3	10.5	0.70
28	Chemicals and allied products.....	10.4	17.6	0.59
29	Petroleum refining and related industries.....	4.6	3.7	1.24
30	Rubber and miscellaneous plastics products.....	3.3	4.6	0.72
31	Leather and leather products.....	1.7	2.1	0.81
	Durable goods.....	86.2	108.7	0.79
24	Lumber and wood products, except furniture.....	3.5	4.0	0.88
25	Furniture and fixtures.....	2.3	3.1	0.74
32	Stone, clay, and glass products.....	5.0	7.0	0.71
33	Primary metal industries.....	11.5	15.3	0.75
34	Fabricated metal products.....	9.2	11.8	0.78
35	Machinery, except electrical.....	14.0	17.3	0.81
36	Electrical machinery.....	12.3	17.0	0.72
19	{ Transportation equipment and ordnance, except motor vehicles.....	10.4	} 25.6	0.87
37		11.8		
38		3.5		
39		2.5		
	Miscellaneous manufacturing industries.....		3.6	0.69

Source: Survey of Current Business, July 1966 p. 15.

in addition to cost of materials, such other costs as depreciation charges, State and local taxes (other than corporate income taxes), allowance for bad debts, and purchases of services from nonmanufacturing enterprises, such as contract costs involved in maintenance and repair, services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by nonmanufacturing establishments of companies classified as being primarily manufacturing, and conversely, in the exclusion of some part of the net value added by manufacturing establishments of companies classified as primarily *nonmanufacturing*. It is believed that for manufacturing as a whole the net effect increases income originating. (In fact, in the Petroleum and Coal Products major industry group, nonmanufacturing activities of manufacturing companies are so significant that this is the one major industry group in

which OBE "income originating" exceeds Census "value added by manufacture.")

Figures are not available to permit a reconciliation of the estimates for value added in manufacturing and the national income originating in manufacturing for the current period. However, in 1957, the Census Bureau conducted a special survey, MC-D11, "Selected Costs and Assets of Manufacturing Establishments," which collected information on some of the costs included in value added for services purchased from other sectors or excluded from the national income estimates. These specific costs which accounted for about \$15 billion of the \$148 billion of value added in 1957 were maintenance and repairs, \$4.5 billion; insurance, \$.7 billion; property taxes, \$1.5 billion; rental payments, \$1.4 billion; and depreciation, \$7.3 billion. The residual value added, \$132 billion was approximately \$16 billion in excess of national income of \$116 billion.

Table J presents an approximate reconciliation of national income and value added figures for manufacturing in 1957. The national income estimates for payrolls and other fac-



TABLE J. 1957 Comparative Statistics on Value Added and National Income in Manufacturing

(In billions of dollars)

Item	Value added	National income <sup>1</sup>
Total.....	\$147.8	\$112.5
Payrolls.....	89.4	87.9
Payrolls of operating manufacturing establishments.....	76.4	} <sup>2</sup> 80.6 <sup>3</sup> 7.2
Supplements to wages in operating manufacturing establishments.....	6.0	
Payrolls of central administrative offices and auxiliaries, sales branches and offices of manufacturing companies.....	47.0	
Other factor incomes (Corporate profits, proprietary income).....	24.6	24.6
Costs of manufacturing establishments reported on MC-D11.....	15.4	(X)
Not part of national income:		
Depreciation.....	7.3	(X)
Property taxes.....	1.5	(X)
Probably included in other sectors:		
Maintenance and repairs.....	4.5	(X)
Rental payments.....	1.4	(X)
Insurance.....	0.7	(X)
Other costs (Company overhead (other than payrolls included above); e.g., depreciation, business taxes, and services purchased at the company level; and services purchased directly by plants (advertising, legal, accounting, and other professional services; communications, patent fees, royalties, travel costs, etc.).....	18.4	(X)

(X) Not applicable.

<sup>1</sup>Prior to 1958 revisions of national income.<sup>2</sup>Payrolls.<sup>3</sup>Supplements to wages.<sup>4</sup>Estimated based on figures reported for 1958 in the census of business, manufactures, and minerals.

tor income in that year are based on the unrevised national income figures which are somewhat lower than the revised estimates appearing in table H. It should be noted that the labor costs included in national income and value added are reasonably close despite the fact that they are computed on a slightly different basis. If the proprietary and profit incomes of the company-based national income estimates are allocated to the establishments included in the census of manufactures, value added exceeds national income by \$35 billion of which \$15 billion is attributable to costs reported on survey MC-D11. Somewhat more than half of the \$35 billion excess represents the inclusion in value added by manufacture of purchased business services arising in other economic sectors; the remainder reflects conceptual differences arising from the inclusion in value added of indirect business taxes and depreciation which are excluded by definition from national income.

## 21. INVENTORIES

The value of beginning-of-year and end-of-year inventories, respectively, held by each manufacturing establishment was obtained in the 1963 census. Separate inventory figures

were requested for (1) finished products; (2) work in process; and (3) materials, supplies, fuel, and other inventories.

Respondents were asked to report their inventories at approximate current costs, if feasible; otherwise "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of inventories aggregate for all establishments in an industry is not precise. The figures on change in inventory between the beginning and the end of the year are of considerably greater significance.

In using inventory data by stage of fabrication for all industries and at the 2-digit industry level, the following should be noted: An item treated as a finished product by an establishment in one industry may be reported as a raw material by another establishment in a different industry. For example, the finished product inventories of a steel mill would be reported as raw materials by a stamping plant. Such differences are present in the inventory figures by stage of fabrication shown for individual industries, industry groups, and all manufacturing which are merely aggregates of figures reported by establishments in specified

industries. Further, the total finished goods inventory for "all manufacturing" includes items that are not finished manufactured products.

For a few industries in the food group, there are special problems in the handling of inventories by stage of fabrication. These are industries in which the production cycle is short, the products are usually stored under controlled conditions, and the products are aged. Included among such types of products are meat products, stemmed and dried tobacco, cheese, and whiskey. It is not clear whether such products should be treated as finished goods inventories or as work in process while in storage.

In the meat processing industries, establishments were allowed to report finished products and work in process combined as finished products. In the distilling industry, products stored for aging were to be reported as finished products. In all foods industries, substantial finished goods inventories have been reported. These data have been summarized in the inventory tables in a consistent manner for all of the years included in this report.

## 22. EXPENDITURES FOR PLANT AND EQUIPMENT

In the 1963 census, manufacturers were asked to report expenditures made during the year for permanent additions and major alterations to their plants, as well as for new machinery and equipment purchases, that were chargeable to fixed asset accounts of manufacturing establishments and were of a type for which depreciation accounts are ordinarily maintained. Expenditures for machinery and equipment were to include those made for replacement purposes, as well as for additions to plant capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense; new facilities and equipment leased from non-manufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies; and plant and equipment furnished to the manufacturer by communities and organizations.

In addition to total capital expenditures, respondents were requested to indicate the following subtotals: (a) New structures and additions to plant (including major alterations and capitalized repairs and improvements); (b) new machinery and new equipment (including capitalized repairs and improvements); and (c) expenditures for used plant and used equipment acquired from others (including the U.S. Government). In most tables of these publications, the statistics on capital expenditures are confined to a total of new plant and equipment (items "a" and "b" above). However, in table 3 of the industry chapters in Volume II, and in Expenditures for Plant and Equipment, chapter

5 in Volume I, separate figures are shown for each type of expenditure.

The figures include (a) the expenditures made at manufacturing plants that were in operation during any part of the year, plus (b) expenditures made at plants that were not as yet in production. The data on capital expenditures for plants not in production at the end of 1963 were collected on a separate report form (MA-101) requesting companies to report the value of new plant and new equipment put in place during the year. The form also requested description of the type of products that would be made so that the establishment could be classified into a 4-digit industry. This form was sent to (a) the 1,500 largest manufacturing companies; (b) all other companies which indicated on the census of manufactures establishment report form or the "Listing of Establishments" Form NC-X-1 that they had one or more manufacturing plants under construction but not yet in operation at the close of 1963.

The Census Bureau estimates of capital expenditures tend to be lower than those published in the joint Office of Business Economics-Securities and Exchange Commission survey. (See table K below.) In addition to normal sampling variation, a major source of differences is to be found in the scope of the two series. Census data relate only to manufacturing establishments, whereas the OBE-SEC series cover all establishments of manufacturing companies—nonmanufacturing as well as manufacturing. This factor is particularly important in the petroleum industry where company expenditures for developing new wells and new distribution facilities are ordinarily much larger than their capital expenditures at refineries. On the other hand, manufacturing establishments of companies engaged primarily in non-manufacturing activities are excluded from the OBE-SEC series but included in Census figures.

TABLE K. Expenditures for New Plant and Equipment for Manufacturing—OBE-SEC and Census of Manufactures Compared

(In billions of dollars)

Year	OBE SEC	Census	Census as percent of OBE SEC
1963.....	\$15.7	\$11.4	0.73
1962.....	14.7	10.0	0.68
1961.....	13.6	9.8	0.72
1960.....	14.5	10.0	0.69
1959.....	12.1	9.3	0.77
1958.....	11.4	9.6	0.84
1954.....	11.0	8.2	0.74
1947.....	8.7	<sup>1</sup> 6.0	0.69

Source: U.S. Department of Commerce, Office of Business Economics Business Statistics, 1963, and the Census of Manufactures.

<sup>1</sup>Excludes plants under construction but not yet in operation.



Both series, it should be noted, exclude expenditures for plant and equipment at establishments owned by the Federal Government but operated under lease or contract by private companies.

## 23. FUELS, ELECTRIC ENERGY, AND POWER EQUIPMENT

In industry table 7B, Volume II, and in chapter 6, Volume I, information on the use of detailed fuels and electric energy and on the horsepower of power equipment in place is provided for the year 1962. This information was collected as part of the 1963 Census of Manufactures on a special sample survey, "MC-D-12, Supplementary Inquiries for 1962." The information was collected for the year prior to the regular census in order to reduce the reporting burden on the respondents and the tabulation burden on the Bureau of the Census during a major census year. The survey report form was mailed to all establishments included in the 1962 Annual Survey of Manufactures. Insofar as these figures are based on a sample, they must be considered approximations and subject to sampling error. A more complete discussion of the compilation and limitations of these data appear in the introductory text to chapter 6, Volume I.

Totals for prime movers and electric motors are shown separately. The horsepower ratings for "prime movers" include information for such types of power equipment as internal combustion engines, steam and hydraulic turbines, and reciprocating steam engines. The totals for prime movers are further separated between those driving electric generators and those used for other purposes. The statistics for prime movers not driving generators exclude data for automobiles, trucks, and other highway equipment.

The aggregate horsepower figure represents the unduplicated rating for total installed equipment and thus provides a measure of the mechanical power available in manufacturing establishments. The figure is derived by summing the horsepower rating of prime movers and that for electric motors driven by purchased electricity. To secure the latter figure, the total horsepower for electric motors was distributed, by establishment, into two categories: Motors driven by purchased electricity and motors driven by energy generated at the establishment. For the relatively small number of establishments which both generate and purchase electricity, the total horsepower for electric motors was prorated on the basis of the ratio of the net quantity purchased to the net total for electricity consumed.

As in past censuses, respondents were requested to report horsepower of stand-by equipment as well as equipment in operation at the end of the year, including all prime movers and motors in mobile (except automo-

biles, trucks, and other highway equipment) as well as in stationary equipment.

Separate data are shown for coal, coke, fuel oil, gas, and other fuels used for heat and power; purchased electric energy; electric energy generated by manufacturing establishments; and energy generated less sold. Total figures for purchased fuels and electric energy were published as part of the 1962 Annual Survey of Manufactures at the 2-digit major group and selected 3-digit industry group levels.

## 24. PLANT SPECIALIZATION DATA

As discussed above, the relationship between the product output and the statistics on employment, payrolls, cost of materials, and value of shipments for an industry can be measured by the specialization ratio and the coverage ratio for the industry. At the aggregate industry level, these data relationships are presented in tables 5A and 5B of the industry reports. For each establishment, two measures of its degree of specialization are prepared: (1) A 4-digit primary product-specialization ratio which is the sum of the values of all the plant's primary products divided by the sum of all its primary and secondary products; and (2) a 5-digit primary product-class specialization code which is the sum of the largest 5-digit product-class value divided by the sum of its primary and secondary products (contract work and miscellaneous receipts and resales are not included in these calculations). For example, assume that an establishment reported the following:

Total value of shipments .....	\$1,000
Miscellaneous receipts and resales .....	15
Total products shipped .....	985
32721 Concrete pipe products .....	100
32722 Precast concrete products .....	785
32730 Ready mixed concrete .....	100

This plant would be coded into the 4-digit SIC industry 3272, *Concrete Products*, with a primary product specialization ratio of 90 percent ( $\$885 \div 985$ ); it would be subclassified into the 5-digit class 32722, *Precast Concrete*, with a primary product class specialization ratio of 80 percent.

In the census of manufactures, general statistics (employment, payrolls, cost of materials, value of shipments, etc.) have been tabulated to 4-digit industry and 5-digit primary product-class levels on the basis of assigning the plant totals to the principal 4- and 5-digit codes representing its output. Table 8 of the industry chapter, Volume II, provides general statistics for those 4- and 5-digit industry categories with subtotals for the two largest specialization classes (90 percent and over, 75 to 90 percent). Not all industries and product classes can be shown in table 8 without disclosing figures for individual companies.



Certain product classes are primary to more than one industry. The industry classification of establishments primarily producing such classes of products is determined on the basis of the kind of operation performed in the establishment; e.g., making the product from purchased materials or from materials produced at the same location. In the plant specialization data (table 8), product classes primary to two or more industries are shown in each of the respective industries. For each industry, the specialization data by industry and product class include only those establishments producing the class of product in the manner defined (e.g., lubricating oils from purchased materials).

Table 8 of the Industry Volume permits analysis of an industry in terms of the differences introduced by variation among establishments in the degree of specialization in the products of the industry or a subgroup (5-digit). For example, where the ratios of various statistics tend to be different for establishments specializing to different degrees in the products of the industry or in different product classes, the ratios for the industry as a whole would be significantly affected by shifts in product mix. It should be noted that for those industries in which a production process results in the manufacture of byproducts or other similarly higher correlated products which are separate product classes in the census, the degree of specialization in each of the product classes tends to be somewhat lower.

Differences in the degree of integration of production processes within establishments are often more important than the element of product mix. A partial measure of differences arising from this factor can be derived for some industries through the metalworking operations or other equipment data. For some other industries, data on the production and use of products within the same establishments may be used as an approximate measure.

### III. SPECIAL INQUIRIES, REPORTS, AND PROCEDURES

#### 25. SPECIAL INQUIRIES

##### **Selected Metalworking Operations.—**

For all industries in SIC Major Groups 35 and 37, and for selected 4-digit industries in Groups 19, 33, 34, 36, and 38, the 1963 census included a special inquiry on "Selected Metalworking and Related Operations" to provide a measure of certain metalworking and related facilities in manufacturing. The following operations were included in this inquiry: foundry (iron or steel); foundry (nonferrous, except die castings); die casting (nonferrous metal only); forging—presses, hammers, or upsetters; electroplating and other plating; gal-

vanizing and other hot-dip coating; heat treating of metals for production purposes; automatic screw machine department; machine shop; tool and die shop, if separate from machine shop; pattern shop (foundry patterns only—metal, wood, etc.); plate or structural fabrication; stamping, blanking, and forming of metals; painting, lacquering, and enameling of metals; plastics molding; assembly of product; and shipping department (including packing and crating).

In Volume I, Chapter 9, Selected Metalworking Operations, the number of establishments performing these operations and the number of production workers engaged in these operations classified by size of the specific operation are shown by industry in table 1 and, for selected operations, by geographic division and State in table 2. The size distribution is based on the number of production workers usually employed in the operation. In addition, for selected industries, the actual number of man-hours worked by production workers in specified operations is also shown. The metalworking operations data by industry are also presented in table 9 of the industry chapters in Volume II.

Information on selected metalworking operations was obtained for practically all industries where such operations are important. For individual industries or groups of industries, the inquiry on metalworking and related operations was tailored to fit the principal operations that were characteristic of those industries.

In many industries, however, small establishments reported on a short form that did not include the inquiry on metalworking operations. Also, a few larger establishments that filed standard forms did not report their metalworking operations. This has resulted in an understatement of the number of establishments maintaining specific operations, primarily in the smallest size class, and to a much smaller degree an understatement of the total number of production workers in the operation.

An approximation of the coverage in terms of number of production workers is provided for both industry and geographic totals. The coverage for most industries is over 90 degree an understatement of the total number larger establishments predominate.

For foundry operations, the number of plants operating foundries consists of the number reporting the operation for each industry plus the number of establishments classified in the foundries industries. For forgings operations, the number of plants operating forge shops consists of the number reporting the operation for each industry plus the number of establishments classified in the forgings industries. In footnotes to table 1,



1963 data are shown for the number of establishments classified in these industries. For example, in addition to establishments shown in the table as operating foundries and die casting facilities, the number of establishments classified in the foundry industries is given in the footnote. In the State table, separate columns have been included giving the number of establishments classified in these industries in each State. Similarly, the form used by respondents in industry 3471, Planting and Polishing, did not include the metalworking inquiry. Consequently, data for establishments in these latter industries were presented in the same manner as for the foundry industries.

A limited inquiry covering machine shops and pattern-shop operations was included for the foundry industries, and an inquiry covering machine shops and tool and die shops was included for the forgings industries.

**Selected Equipment Data.**—An inventory of textile equipment in place was obtained for a number of the important machines used in the basic textile industries. These data, grouped by type of operation or industry activity of the plant, are shown in a separate chapter in the Industry Volume. Information regarding the coverage of the inquiry is also shown.

**Special Departmental Reports.**—For paper plants, stone and clay plants, steel plants, aluminum rolling mills, brass mills, and nonferrous wire drawing and insulating plants, where vertically integrated activities are characteristic of establishment operations, selected employment information regarding certain departmental activities was obtained in the 1963 census, as had been done in the 1958 census. Information relating to pulping departments, printing employment, and presses in paper and paperboard converting plants, quarrying activities, and selected operations in steel plants, aluminum rolling mills, brass mills, and nonferrous wire drawing and insulating plants is shown in the chapters for these industries in the Industry Volume.

**Distribution of Products or Sales.**—There was a series of special inquiries which collected information on the distribution of specific products; e.g., sales of packaged milk by retail and wholesale routes; the number and payroll of delivery employees engaged in the milk, bakery, soft drink, and beer industries; sale of books and storage batteries by class of customer; the circulation of periodicals by type of periodical and frequency of issue; production of shoes and slippers by type of construction.

The data resulting from these selected special inquiries on the standard census forms appear in the chapters for the industry in Volume II.

## 26. SUBJECT REPORTS SHOWN IN VOLUME I, SUMMARY AND SUBJECT STATISTICS

In Volume I, there are several summary reports on inventories, capital expenditures, size of establishments, type of organization, power equipment in place, fuels and electric energy, materials consumed, water use, shipments of defense-related products, operations of government-owned establishments, exports of manufactured products, and the degree of concentration in manufacturing.

Most of these chapters are merely summarizations or special compilations of data reported on the standard census forms and presented in the industry or area chapters. Others, however, are the result of information collected on special surveys. The introduction to each of these latter reports describes the report form used, and the sampling or compilation techniques used to assemble the data.

The following chapters which are re-compilations of basic data reported on the census of manufactures report forms should be noted.

**Size of Establishment.**—Each establishment in the census is coded not only to an industry and geographic location but also by its size based on the average number of employees for the year. These size tabulations provide significant insight into the variations in operating ratios among plants within an industry and between industries. Information on the number of establishments, employment, payrolls, value added, value of shipments, and capital expenditures is presented for 10 employment size classes in each industry in table 4, Volume II, and in chapter 2, Summary Volume I. In Volume I, size information at the 2-digit industry and all-manufacturing levels is presented.

### Type of Organization:

**Multiunit, Single-Unit Establishments.**—Information on whether plants are independent or part of multiestablishment companies contributes importantly to our knowledge of the structure of manufactures in the United States. However, this classification is affected by the way the census of manufactures is conducted. Prior to the 1954 census, the census of manufactures was conducted independently and the multiunit classification was assigned if the company operated more than one manufacturing plant. Beginning in 1954, it has been part of the overall census of business, manufactures, and mineral industries and the multiunit classification applies to companies that may have only one manufacturing plant but also operate separate retail, wholesale, service, or minerals establishment, or a separate administrative office.



The proportion of employees and of value added by manufacture accounted for by multiunit plants has grown rapidly since 1947. (See table L.)

**TABLE L. Multiunit Plants as a Percentage of Total Manufacturing**

Year	Employees	Value added by manufacture
1963.....	68	76
1958.....	65	74
1954.....	61	68
1947.....	56	59

However, some of the increase from 1947 to 1954 was a consequence of taking the censuses of manufactures, mining, trade, and services simultaneously in 1954, but not in 1947.

*Legal Form of Organization.—*

Each establishment was asked to report the forms of organization of the company which operated it; e.g., corporation, partnership, proprietorship, cooperative. In chapter 3, Volume I, selected general statistics are shown for each 4-digit industry for each of these forms of business organization. Cooperatives are combined with "other" forms of business organization because of the disclosure problems. In manufacturing, about half the plants are operated by corporations but these plants account for about 95 percent of value added by manufacture.

**Concentration Ratios in Manufacturing.**—In chapter 11 of Volume I, information is provided on the share of all manufacturing accounted for by the 50, 100, 150, and 200 largest manufacturing companies ranked by their total value added in manufacturing for 1963, 1958, 1954, and 1947. Information is also shown for the share of value of shipments in each 4-digit industry accounted for by the 4, 8, 20, and 50 largest companies in each of these industries. A description of the methods used in compiling these data accompanies the tables in Volume I.

## 27. IMPUTATION OF DATA

Each "key" census total called for on the standard forms had its counterpart in the various short forms. The short forms, however, did not require the detailed distribution of such totals (see section 8, The Census Report Forms). It was necessary, therefore, to impute figures for these missing detail items in order to publish universe totals of manufacturing activity.

Imputation of missing items, which was done on an industry basis, was made feasible

by use of the Census Bureau's high-speed electronic computer. The procedures for imputation were of two types: (1) Production workers, production-worker wages, and man-hours were imputed from fixed ratios specified in advance from historical relationships of these items to total employees and total payroll; (2) other items, such as capital expenditures and inventories, were imputed on the basis of their historical relationship to value of shipments. Missing detail was generally imputed on the basis of the historical relationship of the item to its respective total.

For industries characterized by establishments of some size, the percentage of imputation of general measures such as employment and payrolls, cost of materials, inventories, expenditures, and the like is negligible; for the industries in which small establishments account for a significant portion of the total, the percent may go as high as 10 or 25, but this occurs only in a handful of industries. Of the various statistics, man-hours worked tended to have a higher degree of imputation than the other items due to difficulties in reporting those data by small and medium-size establishments.

The major exceptions to the imputation procedure for missing data were the detailed products and materials, metalworking operations, and equipment inquiries. The value of products and the cost of materials, parts, supplies and containers for establishments not reporting the detailed inquiries were treated as "unspecified" materials or products in the appropriate tables. For metalworking operations and equipment, the statistics were based on establishments reporting data, with appropriate measures of coverage shown in the tables.

## 28. CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES

The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In the 1963 census, as in previous censuses, preference was given to geographic regions and divisions over individual States in applying disclosure rules; similarly, States took precedence over standard metropolitan areas, while such areas were given preference over counties, and counties over cities. In tables showing industry detail, major industry group (2-digit) totals were given preference over industry group (3-digit) totals which, in turn, had precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings took precedence over 5-digit product classes; the latter were given precedence over individual 7-digit products.

Such order of precedence was used because (1) it was considered preferable to show



regional data for an industry, even at the cost of withholding data for some (usually the least significant) State in a region, rather than to show all publishable data for the individual States and group the disclosure States throughout the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) by giving preference to industry group statistics over individual industries within each State, the extent to which individual States can be compared within the SIC industry classification framework is increased.

For each producing State not shown separately in table 2 of the Industry Volume, a footnote gives the number of establishments and either an employment range or the actual employment figure. The employment is shown in a range if the State had less than 1,000 employees, and the employment data represented the total for only one or two companies, or if the exact figure would permit deriving (by subtraction) the number of employees in other States represented by only one or two companies. In addition, figures for States with less than 100 employees are shown only in the footnote together with the number of establishments and employment in a range.

In the Area Volume, figures are not shown for a county or for an industry within a State, metropolitan area, or principal industrial county if the publication of such statistics would disclose information for individual companies. In table 4 of that Volume, however, the number of establishments is shown for every county and the number of employees for most counties represented by three or more companies. Moreover, all counties having manufacturing establishments are included in table 7, showing for each county, the distribution by employment size of establishments in each major industry group.

A special series of publications entitled "Location of Manufacturing Plants" was originally developed for the 1954 census and has been continued in subsequent censuses. In these publications are tables showing the number of establishments cross-classified by 4-digit industry, county, and employment size class. This is the maximum information which can be provided at such narrow industry-area-size categories without disclosing figures for individual companies. These data are designed to meet the needs of (a) those involved in economic development programs at the regional, State, and local area levels, (b) those engaged in industrial market analysis or allocation of

sales territories, and (c) those concerned with industrial dispersion, regional shifts of industry, and similar problems. For a more complete description of the content of these publications, see the publication statement in the introduction of this volume.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions in order to show all plants by some geographic grouping. For this purpose the following combinations of Census divisions have been used:

NORTHEAST  
New England  
Middle Atlantic

NORTH CENTRAL  
East North Central  
West North Central

SOUTH  
South Atlantic  
East South Central  
West South Central

WEST  
Mountain  
Pacific

## 29. ABBREVIATIONS

The following abbreviations and symbols occur frequently in tables and footnotes:

—	Zero
X	Not applicable
NA	Not available
n.e.c.	Not elsewhere classified
n.s.k.	Not specified by kind
lin.	Linear
equiv.	Equivalent
hp	Horsepower
kw.-hrs.	Kilowatt-hours
D	Withheld to avoid disclosing figures for individual companies
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., yd., doz., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 pounds; where the figures are expressed in tons of 2,240 pounds, the unit of measure is specified as "long tons" or "gross tons."

## Petroleum and Coal Products

### 29A Petroleum refining and related industries

This major group includes establishments primarily engaged in petroleum refining, manufacturing paving and roofing materials, and compounding lubricating oils and greases from purchased materials. Establishments manufacturing and distributing gas (water or coke oven) to consumers are classified in public utilities industries, and those primarily engaged in producing coke and byproducts in Major Group 33. Establishments primarily engaged in producing crude petroleum, natural gas, natural gasoline, and cycle condensation are classified in mining industries.



# PETROLEUM AND COAL PRODUCTS: MAJOR GROUP 29

Value Added by Manufacture by State: 1963

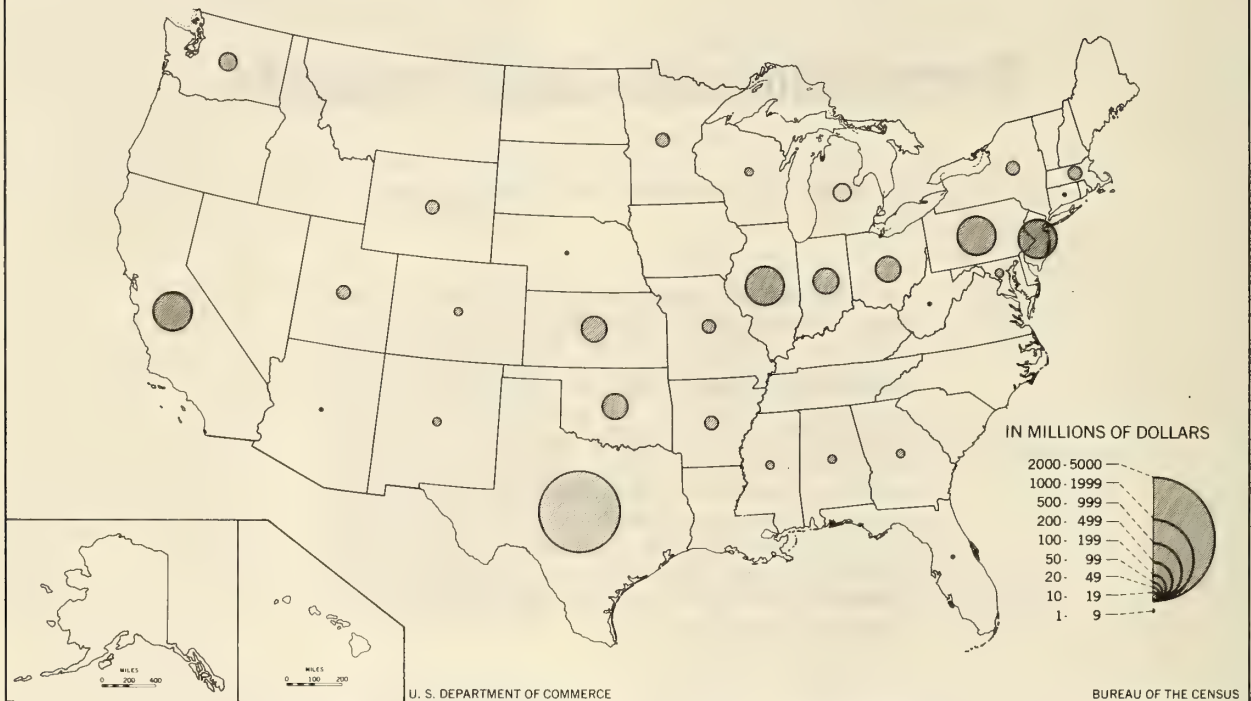


TABLE 1. General Statistics: 1963 and Earlier Years

Year and item	Establishments		All employees <sup>1</sup>		Production workers			Value added by manufacture, adjusted <sup>2</sup>	Cost of materials <sup>3</sup>	Value of shipments <sup>3</sup>	Capital expenditures, new <sup>4</sup>
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)				
ALL MANUFACTURING ESTABLISH- MENTS: TOTAL:											
1963 . . . . .	2 056	840	219 903	1 762 860	109 448	216 679	745 123	3 713 231	14 291 526	17 994 742	413 681
1958 . . . . .	1 941	653	247 440	1 665 855	130 508	255 360	758 422	2 518 424	(NA)	15 623 067	681 805
1954 . . . . .	1 262	592	230 965	1 285 271	135 844	269 311	659 243	2 240 876	(NA)	(NA)	673 883
ADMINISTRATIVE AND AUXILIARY UNITS:											
1963 <sup>5</sup> . . . . .	217	151	66 417	629 095	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1958 <sup>5</sup> . . . . .	233	168	68 274	539 182	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1954 . . . . .	(NA)	(NA)	47 626	332 036	(X)	(X)	(X)	(X)	(X)	(X)	(X)
OPERATING MANUFACTURING ESTABLISHMENTS:											
1963 . . . . .	1 839	689	153 486	1 133 765	109 448	216 679	745 123	3 713 231	14 291 526	17 994 742	413 681
1958 . . . . .	1 708	821	179 166	1 116 673	130 508	255 360	758 422	2 518 424	(NA)	15 623 067	681 805
1954 <sup>6</sup> . . . . .	1 262	592	230 965	1 285 235	135 844	269 311	659 243	2 240 876	(NA)	(NA)	673 883
OPERATING MANUFACTURING ESTABLISHMENTS (ORIGINAL)	1 381	681	215 843	1 101 814	163 811	322 947	778 408	2 621 999	(NA)	(NA)	753 184
OPERATING MANUFACTURING ESTABLISHMENTS:											
1962 <sup>6</sup> . . . . .	(NA)	(NA)	154 281	1 096 884	109 985	221 283	724 239	3 439 041	13 786 473	17 192 541	479 413
1961 <sup>6</sup> . . . . .	(NA)	(NA)	159 604	1 118 102	114 380	228 952	745 071	3 382 110	13 493 366	16 827 300	494 969
1960 <sup>6</sup> . . . . .	(NA)	(NA)	170 946	1 145 366	124 090	249 573	772 921	3 307 531	(NA)	(NA)	484 808
1959 <sup>6</sup> . . . . .	(NA)	(NA)	170 892	1 128 014	124 194	246 470	761 368	2 894 208	(NA)	(NA)	430 523
1957 <sup>6</sup> . . . . .	(NA)	(NA)	185 562	1 149 941	135 094	268 144	771 048	3 249 345	(NA)	(NA)	899 551
1956 <sup>6</sup> . . . . .	(NA)	(NA)	183 988	1 082 575	136 276	271 084	744 071	3 317 815	(NA)	(NA)	700 700
1955 <sup>6</sup> . . . . .	(NA)	(NA)	183 036	1 001 312	135 815	270 888	692 015	2 793 104	(NA)	(NA)	545 343
1953 <sup>7</sup> <sup>8</sup> . . . . .	(NA)	(NA)	229 294	1 139 577	175 770	350 552	820 992	2 795 373	(NA)	(NA)	833 410
1952 <sup>7</sup> <sup>8</sup> . . . . .	1 024	(NA)	220 227	1 035 721	170 260	338 431	751 099	2 618 927	(NA)	(NA)	612 258
1951 <sup>7</sup> <sup>8</sup> . . . . .	889	(NA)	218 142	970 072	169 929	346 969	712 090	2 686 571	(NA)	(NA)	448 983
1950 <sup>7</sup> <sup>8</sup> . . . . .	1 142	(NA)	207 510	850 261	161 945	330 222	623 752	2 138 570	(NA)	(NA)	331 541
1949 <sup>7</sup> <sup>8</sup> . . . . .	(NA)	(NA)	208 397	820 223	166 653	335 646	614 279	1 743 845	(NA)	(NA)	473 704
1947 <sup>6</sup> . . . . .	1 411	(NA)	207 618	725 983	165 405	354 089	543 362	1 990 944	(NA)	(NA)	399 754
1939 <sup>9</sup> . . . . .	1 227	(NA)	(NA)	(NA)	107 695	(NA)	176 606	697 273	(NA)	(NA)	(NA)
1937 . . . . .	934	(NA)	(NA)	(NA)	115 837	(NA)	188 843	638 265	(NA)	(NA)	(NA)
1935 <sup>10</sup> . . . . .	928	(NA)	124 148	186 513	105 079	(NA)	143 053	471 411	(NA)	(NA)	(NA)
1933 . . . . .	835	(NA)	102 523	140 706	89 772	(NA)	113 320	395 245	(NA)	(NA)	(NA)
1931 . . . . .	859	(NA)	(NA)	(NA)	90 827	(NA)	139 812	431 585	(NA)	(NA)	(NA)
1929 <sup>11</sup> . . . . .	922	(NA)	(NA)	(NA)	111 554	(NA)	180 028	828 848	(NA)	(NA)	(NA)
1927 . . . . .	645	(NA)	116 430	201 760	99 845	(NA)	159 044	543 148	(NA)	(NA)	(NA)
1925 . . . . .	750	(NA)	113 072	193 370	97 071	(NA)	153 921	634 939	(NA)	(NA)	(NA)
1923 . . . . .	781	(NA)	124 504	210 125	103 110	(NA)	163 279	562 039	(NA)	(NA)	(NA)
1921 . . . . .	692	(NA)	102 485	175 940	86 538	(NA)	135 824	429 870	(NA)	(NA)	(NA)
1919 . . . . .	787	(NA)	118 209	182 389	97 250	(NA)	142 615	510 769	(NA)	(NA)	(NA)
1914 . . . . .	591	(NA)	59 956	48 999	50 702	(NA)	36 440	111 860	(NA)	(NA)	(NA)
1909 <sup>12</sup> . . . . .	590	(NA)	51 317	34 076	45 755	(NA)	26 764	76 299	(NA)	(NA)	(NA)
1904 . . . . .	376	(NA)	39 111	23 264	35 751	(NA)	19 293	57 462	(NA)	(NA)	(NA)
1899 . . . . .	308	(NA)	31 314	16 411	29 198	(NA)	13 803	36 989	(NA)	(NA)	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. <sup>1</sup>Revised.

The figures for 1939 through 1963 include data for employees of manufacturing establishments who are engaged in distribution and construction work. The extent to which data for such employees are included in the figures for earlier years is not known.

<sup>2</sup>For the period 1954 to 1963, figures represent adjusted value added by manufacture and for earlier years, unadjusted value added. Adjusted value added is equal to value of shipments (including resales of finished products) less cost of finished products, materials, supplies, fuel, electric energy and contract work, plus the net change in the value of finished products and work-in-process inventories between the beginning and end of the year, without adjustment for price changes. Unadjusted value added is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. For 1899 to 1933, cost of contract work was not subtracted from value of products in calculating value added by manufacture.

<sup>3</sup>The total value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry classification. For a more complete explanation, see Introduction.

<sup>4</sup>The figures for 1958 to 1963 include expenditures for plants under construction and not yet in operation.

<sup>5</sup>In addition to data for operating establishments 1954, 1958, and 1963 data are shown for manufacturer's central administrative offices and auxiliary units. Similar data are shown for the years 1949-1953 and 1955-1957 in annual survey of manufactures volumes. Data for these units are not available for the years prior to 1949.

<sup>6</sup>The 1957 edition of the Standard Industrial Classification classifies beehive coke ovens and byproduct coke ovens in Major Group 33. Such establishments were previously included in Major Group 29, Petroleum and Coal Products. However, this change was

reflected in the tabulations for 1955 to 1957 annual surveys of manufactures. Data for 1954 were retabulated on this basis and are the source of the data labeled "Revised". Figures labeled "Original" for 1954 and data for prior years include beehive and byproduct coke ovens.

<sup>7</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, consequently, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>8</sup>The 1947 figures have been revised to exclude data for by-product coke plants operated in conjunction with public utilities manufacturing and distributing gas, and to include data for establishments primarily engaged in shipping lubricants and greases made from animal and vegetable oils (classified in Industry 2899 in 1947). The figures for 1949 to 1953 can not be revised to include these greases.

<sup>9</sup>Figures for years prior to 1939 exclude byproduct coke ovens owned by city gas companies. Such ovens represent less than 2 percent of the total value of products for the petroleum and coal products group for 1939.

<sup>10</sup>Excludes a few establishments engaged principally in blending and compounding lubricating oils.

<sup>11</sup>Figures for years prior to 1929 exclude lubricants, n.e.c. and paving mixtures and blocks. These industries represented 4 percent of the figure for number of production workers and 5 percent of the figure for value added by manufacture, shown for the petroleum and coal products group for 1929. Prior to 1929, the lubricants, n.e.c. industry is included in the series for chemical and allied products group.

<sup>12</sup>Figures for years prior to 1909 exclude fuel briquets and roofing felts and coatings. For 1909, these industries represented 6 percent of the figure for number of production workers and 9 percent of the figure for value added by manufacture shown for the petroleum and coal products group.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
									(number)	(number)	(number)	(\$1,000)
29	PETROLEUM AND COAL PRODUCTS, TOTAL	1 839	689	153 486	1 133 765	109 448	216 679	745 123	3 713 231	413 681	179 166	2 518 424
	NORTHEAST . . . . .	474	139	27 690	204 410	20 233	41 388	138 059	525 237	43 030	33 484	331 030
	NEW ENGLAND . . . . .	95	23	2 043	13 133	1 420	3 117	8 065	32 034	2 357	2 345	25 445
	MAINE . . . . .	4	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	NEW HAMPSHIRE . . . . .	4	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	60	680
	VERMONT . . . . .	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	MASSACHUSETTS . . . . .	58	16	1 413	8 770	987	2 264	5 430	21 963	1 378	1 582	17 251
	RHODE ISLAND . . . . .	4	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	267	3 016
	CONNECTICUT . . . . .	24	4	385	2 758	246	432	1 506	5 808	672	(D)	(D)
	MIDDLE ATLANTIC . . . . .	379	116	25 647	191 277	18 813	38 271	129 994	493 203	40 673	31 139	305 585
	NEW YORK . . . . .	145	29	2 446	18 257	1 671	3 471	11 925	48 895	3 418	3 021	34 395
	NEW JERSEY . . . . .	86	37	9 045	69 501	6 575	13 094	46 652	238 248	11 352	11 377	108 838
	PENNSYLVANIA . . . . .	148	50	14 156	103 519	10 567	21 706	71 417	206 060	25 903	16 741	162 352
	NORTH CENTRAL . . . . .	522	208	37 197	274 826	26 613	53 487	179 694	886 919	67 113	44 508	681 569
	EAST NORTH CENTRAL . . . . .	408	154	28 845	216 889	20 542	40 676	140 863	665 786	32 935	35 254	529 158
	OHIO . . . . .	153	50	6 810	50 384	4 730	9 545	32 745	158 706	7 865	7 672	141 769
	INDIANA . . . . .	53	21	7 333	58 356	5 419	10 458	39 524	154 522	7 774	9 933	117 522
	ILLINOIS . . . . .	97	50	11 346	83 577	8 073	15 594	52 572	250 378	13 989	14 140	208 297
	MICHIGAN . . . . .	74	23	2 781	20 905	1 957	4 344	13 814	89 647	2 713	2 807	50 709
	WISCONSIN . . . . .	31	10	575	3 667	363	735	2 208	12 533	594	702	10 861
	WEST NORTH CENTRAL . . . . .	114	54	8 352	57 937	6 071	12 811	38 831	221 133	34 178	9 254	152 411
	MINNESOTA . . . . .	25	13	1 474	10 780	954	2 104	6 207	42 095	16 031	1 289	27 145
	IOWA . . . . .	13	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	MISSOURI . . . . .	35	17	2 186	14 740	1 521	3 098	9 483	45 305	1 112	2 769	37 560
	NORTH DAKOTA . . . . .	4	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	SOUTH DAKOTA . . . . .	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	NEBRASKA . . . . .	6	3	176	821	117	230	552	4 721	152	(D)	(D)
	KANSAS . . . . .	30	16	3 954	27 728	3 083	6 531	20 218	115 621	15 943	4 448	72 097
	SOUTH . . . . .	524	218	62 000	464 033	43 860	86 771	302 008	1 623 797	208 019	72 810	1 051 123
	SOUTH ATLANTIC . . . . .	174	52	5 099	32 021	3 660	8 075	20 681	137 584	7 220	4 794	82 487
	DELAWARE . . . . .	10	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	MARYLAND . . . . .	33	12	1 190	7 685	865	2 040	5 227	19 201	1 897	1 264	18 818
	VIRGINIA . . . . .	14	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	WEST VIRGINIA . . . . .	25	6	559	3 010	467	913	2 440	8 423	718	709	6 663
	NORTH CAROLINA . . . . .	13	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	177	1 589
	SOUTH CAROLINA . . . . .	12	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	GEORGIA . . . . .	27	10	743	4 124	538	1 152	2 779	11 436	402	646	7 199
	FLORIDA . . . . .	40	14	795	3 777	572	1 267	2 394	8 432	660	701	6 405
	EAST SOUTH CENTRAL . . . . .	95	24	2 761	18 096	2 017	4 161	12 639	67 761	54 384	2 655	46 822
	KENTUCKY . . . . .	18	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1 060	25 756
	TENNESSEE . . . . .	26	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	ALABAMA . . . . .	32	10	785	4 499	589	1 210	3 057	14 109	677	764	9 491
	MISSISSIPPI . . . . .	19	7	630	4 810	476	1 004	3 834	14 575	(D)	(D)	(D)
	WEST SOUTH CENTRAL . . . . .	255	142	54 140	413 916	38 183	74 535	268 688	1 418 452	146 415	65 361	921 814
	ARKANSAS . . . . .	18	10	1 445	9 417	1 115	2 384	6 761	25 517	945	1 582	18 777
	LOUISIANA . . . . .	45	29	11 126	87 606	6 887	13 578	48 721	273 562	27 902	14 287	201 867
	OKLAHOMA . . . . .	41	19	5 606	36 796	4 501	8 829	28 946	113 718	4 430	6 547	108 447
	TEXAS . . . . .	151	84	35 963	280 097	25 680	49 744	184 260	1 005 655	113 138	42 945	592 723
	WEST . . . . .	319	124	26 611	190 499	18 755	35 075	125 390	676 087	95 545	28 364	454 702
	MOUNTAIN . . . . .	73	40	5 505	39 863	3 814	7 651	26 903	117 801	22 150	6 096	103 067
	MONTANA . . . . .	10	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1 065	24 081
	IDAHO . . . . .	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	WYOMING . . . . .	12	9	2 127	15 546	1 324	2 514	9 606	37 222	11 072	2 421	31 931
	COLORADO . . . . .	18	10	925	6 748	674	1 375	4 689	16 732	1 500	808	13 887
	NEW MEXICO . . . . .	8	6	504	3 225	391	795	2 282	10 351	318	661	9 380
	ARIZONA . . . . .	8	1	69	349	28	71	152	1 249	97	(D)	(D)
	UTAH . . . . .	14	7	1 000	7 120	722	1 526	5 141	25 238	1 426	1 080	23 162
	NEVADA . . . . .	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	PACIFIC . . . . .	246	84	21 106	150 636	14 941	27 424	98 487	558 286	73 395	22 328	351 635
	WASHINGTON . . . . .	25	9	1 391	10 486	897	1 835	6 259	63 956	5 899	1 305	33 345
	OREGON . . . . .	17	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	279	4 489
	CALIFORNIA . . . . .	200	65	19 017	135 366	13 561	24 644	89 174	476 756	57 055	20 744	313 801
	ALASKA . . . . .	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	HAWAII . . . . .	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
291	PETROLEUM REFINING, TOTAL <sup>1</sup> . . . . .	427	297	119 297	922 319	85 929	166 409	614 318	3 137 603	385 126	146 025	2 119 402

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
		Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
295	PAVING AND ROOFING MATERIALS, TOTAL.	992	267	24 261	144 542	17 640	38 122	97 342	355 565	22 009	23 317	269 035
	NORTHEAST . . . . .	308	65	5 877	37 724	4 323	9 486	25 641	91 850	7 440	5 888	72 760
	NEW ENGLAND . . . . .	73	17	1 564	9 841	1 163	2 596	6 234	22 369	2 000	1 436	15 673
	MIDDLE ATLANTIC . . . . .	235	48	4 313	27 883	3 160	6 890	19 407	69 481	5 440	4 452	57 087
	NEW YORK . . . . .	107	18	1 124	8 293	755	1 611	5 296	22 712	1 981	1 203	19 334
	NEW JERSEY . . . . .	47	15	1 856	12 255	1 452	3 150	9 111	28 681	2 588	1 877	21 686
	PENNSYLVANIA . . . . .	81	15	1 333	7 335	953	2 129	5 000	18 088	871	1 372	16 067
	NORTH CENTRAL . . . . .	260	76	7 747	48 413	5 897	12 634	33 788	114 852	5 824	8 341	90 353
	EAST NORTH CENTRAL. . . . .	214	63	6 458	40 535	4 872	10 355	28 012	97 059	4 954	6 909	75 239
	OHIO . . . . .	98	23	2 200	13 834	1 624	3 490	9 364	36 202	2 231	2 055	27 331
	INDIANA . . . . .	32	8	633	4 296	463	1 024	2 722	10 650	692	611	6 654
	ILLINOIS . . . . .	45	23	3 040	18 740	2 326	4 928	13 335	41 344	1 458	3 719	34 416
	MICHIGAN . . . . .	31	8	515	3 250	410	824	2 357	8 113	542	477	6 317
	WEST NORTH CENTRAL. . . . .	46	13	1 289	7 878	1 025	2 279	5 776	17 793	870	1 432	15 114
	MINNESOTA . . . . .	12	5	514	3 111	384	830	2 008	6 389	324	452	5 043
	MISSOURI . . . . .	15	7	628	3 830	527	1 163	3 088	8 652	296	(D)	(D)
	SOUTH . . . . .	276	82	7 348	36 487	5 144	11 240	23 430	92 707	5 302	5 926	60 653
	SOUTH ATLANTIC. . . . .	132	34	2 879	15 173	2 206	5 056	10 859	39 327	3 157	2 143	26 050
	DELAWARE . . . . .	7	2	166	920	123	251	608	1 501	226	109	904
	VIRGINIA . . . . .	10	1	165	927	136	344	724	2 883	161	(D)	(D)
	WEST VIRGINIA. . . . .	20	3	248	1 237	197	359	942	2 797	233	(D)	(D)
	NORTH CAROLINA . . . . .	11	2	174	798	147	319	635	2 096	159	156	1 496
	GEORGIA . . . . .	16	7	531	2 814	398	860	2 018	8 339	221	404	4 719
	FLORIDA . . . . .	34	12	673	3 215	487	1 089	2 043	7 214	585	473	5 038
	EAST SOUTH CENTRAL. . . . .	66	13	1 162	5 572	828	1 758	3 550	16 085	1 101	979	10 194
	KENTUCKY . . . . .	13	1	105	489	80	171	329	1 286	222	(D)	(D)
	TENNESSEE. . . . .	20	3	275	1 355	203	444	898	4 854	356	(D)	(D)
	ALABAMA . . . . .	24	6	529	2 800	371	764	1 734	8 395	388	(D)	(D)
	MISSISSIPPI. . . . .	9	3	253	928	174	379	589	1 550	135	(D)	(D)
	WEST SOUTH CENTRAL. . . . .	78	35	3 307	15 742	2 110	4 426	9 021	37 295	1 044	2 804	24 409
	LOUISIANA. . . . .	19	8	710	3 551	582	1 190	2 748	7 870	235	769	6 293
	TEXAS. . . . .	41	20	1 932	9 288	985	2 032	4 244	22 436	611	(D)	(D)
	WEST. . . . .	148	44	3 301	21 921	2 289	4 804	14 511	56 703	3 470	3 162	45 269
	MOUNTAIN. . . . .	24	9	542	3 184	327	694	1 809	6 285	420	317	4 010
	COLORADO . . . . .	6	3	217	1 477	120	252	694	2 364	169	(D)	(D)
	ARIZONA. . . . .	5	1	57	306	19	53	118	1 194	82	(D)	(D)
	PACIFIC . . . . .	124	35	2 759	18 737	1 962	4 110	12 702	50 418	3 050	2 845	41 259
	OREGON . . . . .	12	6	298	1 795	225	467	1 255	4 374	113	(D)	(D)
	CALIFORNIA . . . . .	101	24	2 128	15 023	1 536	3 196	10 231	40 675	2 371	(D)	(D)
99	PETROLEUM & COAL PRODUCTS, NEC, TOTAL	420	125	9 928	66 904	5 879	12 148	33 463	220 063	6 546	9 824	129 987
	NORTHEAST . . . . .	113	39	3 289	23 427	1 995	4 056	11 661	67 077	1 563	3 104	41 321
	NEW JERSEY . . . . .	25	12	1 346	8 762	964	1 827	5 629	33 260	456	1 309	18 234
	PENNSYLVANIA . . . . .	43	18	1 394	10 982	740	1 577	4 396	22 600	637	1 257	17 517
	NORTH CENTRAL . . . . .	165	60	4 603	30 787	2 554	5 212	14 319	109 292	2 583	4 341	59 691
	OHIO . . . . .	40	16	1 051	7 341	496	960	3 078	18 686	503	1 022	12 958
	INDIANA. . . . .	6	1	134	1 630	46	103	247	5 690	90	166	2 520
	ILLINOIS . . . . .	36	15	1 282	8 975	725	1 538	4 093	29 735	1 177	1 044	16 672
	MICHIGAN . . . . .	28	5	306	2 189	166	365	1 052	9 879	108	348	4 569
	WISCONSIN. . . . .	16	5	248	1 544	140	277	852	6 595	45	418	7 322
	MINNESOTA. . . . .	7	3	136	825	85	182	503	5 382	80	(D)	(D)
	SOUTH . . . . .	80	14	1 332	7 888	862	1 926	4 795	22 049	1 719	(D)	(D)
	SOUTH ATLANTIC. . . . .	23	6	320	1 735	179	393	917	5 050	(D)	518	4 504
	EAST SOUTH CENTRAL. . . . .	13	-	86	521	60	140	344	986	(D)	(D)	(D)
	WEST SOUTH CENTRAL. . . . .	44	8	926	5 632	623	1 393	3 534	16 013	1 191	1 020	12 174
	LOUISIANA. . . . .	7	4	412	2 713	294	658	1 779	7 238	989	395	4 593
	TEXAS. . . . .	27	3	331	2 138	226	518	1 413	6 864	162	(D)	(D)
	WEST. . . . .	62	12	704	4 802	468	954	2 688	21 645	680	750	11 446
	MOUNTAIN. . . . .	5	1	29	173	23	49	142	287	21	110	1 269
	PACIFIC . . . . .	57	11	675	4 629	445	905	2 546	21 358	659	640	10 177
	CALIFORNIA . . . . .	49	10	627	4 241	414	839	2 354	18 725	605	(D)	(D)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.  
This industry group consists of a single 4-digit industry. Detailed data by State are included in the 4-digit industry tables.



TABLE 3. Detailed Statistics: 1963

Item	Petroleum and coal products (SIC 29)	Petroleum refining (SIC 291)	Paving and roofing materials (SIC 295)	Petroleum and coal products, n.e.c. (SIC 299)
ESTABLISHMENTS, TOTAL . . . . .	NUMBER . . . . .			
WITH 1 TO 19 EMPLOYEES. . . . .	DO. . . . .			
WITH 20 TO 99 EMPLOYEES. . . . .	DO. . . . .			
WITH 100 EMPLOYEES OR MORE. . . . .	DO. . . . .			
PROPRIETORS AND WORKING PARTNERS. . . . .	DO. . . . .			
ALL EMPLOYEES (AVERAGE FOR THE YEAR). . . . .	DO. . . . .			
PAYROLL (ALL EMPLOYEES), TOTAL FOR YEAR . . . . .	\$1,000. . . . .			
PRODUCTION WORKERS:				
AVERAGE FOR THE YEAR. . . . .	NUMBER . . . . .			
MARCH . . . . .	DO. . . . .			
MAY . . . . .	DO. . . . .			
AUGUST. . . . .	DO. . . . .			
NOVEMBER. . . . .	DO. . . . .			
MAN-HOURS . . . . .	.1,000. . . . .			
JANUARY-MARCH . . . . .	DO. . . . .			
APRIL-JUNE. . . . .	DO. . . . .			
JULY-SEPTEMBER. . . . .	DO. . . . .			
OCTOBER-DECEMBER. . . . .	DO. . . . .			
WAGES . . . . .	\$1,000. . . . .			
COST OF MATERIALS, ETC., TOTAL <sup>1</sup> . . . . .	DO. . . . .			
MATERIALS, PARTS, CONTAINERS, AND SUPPLIES CONSUMED . . . . .	DO. . . . .			
COST OF REALES . . . . .	DO. . . . .			
FUELS CONSUMED. . . . .	DO. . . . .			
ELECTRIC ENERGY:				
PURCHASED:				
QUANTITY. . . . .	MILLION KW.-HRS. . . . .			
COST. . . . .	\$1,000. . . . .			
GENERATED LESS SOLD . . . . .	MILLION KW.-HRS. . . . .			
CONTRACT WORK . . . . .	\$1,000. . . . .			
VALUE OF SHIPMENTS (INCLUDING REALES), TOTAL <sup>1</sup> . . . . .	DO. . . . .			
VALUE OF REALES. . . . .	DO. . . . .			
VALUE ADDED BY MANUFACTURE, ADJUSTED. . . . .	DO. . . . .			
MANUFACTURERS' INVENTORIES:				
BEGINNING OF YEAR, TOTAL. . . . .	DO. . . . .			
FINISHED PRODUCTS . . . . .	DO. . . . .			
WORK-IN-PROCESS . . . . .	DO. . . . .			
MATERIALS, SUPPLIES, FUEL, ETC. . . . .	DO. . . . .			
END OF YEAR, TOTAL. . . . .	DO. . . . .			
FINISHED PRODUCTS . . . . .	DO. . . . .			
WORK-IN-PROCESS . . . . .	DO. . . . .			
MATERIALS, SUPPLIES, FUEL, ETC. . . . .	DO. . . . .			
EXPENDITURES FOR PLANT AND EQUIPMENT, TOTAL . . . . .	DO. . . . .			
NEW, TOTAL. . . . .	DO. . . . .			
NEW STRUCTURES AND ADDITIONS TO PLANT . . . . .	DO. . . . .			
NEW MACHINERY AND EQUIPMENT . . . . .	DO. . . . .			
USED PLANT AND EQUIPMENT. . . . .	DO. . . . .			
SELECTED OPERATING RATIOS:				
PAYROLL/TOTAL EMPLOYMENT. . . . .				
PRODUCTION WORKERS/TOTAL EMPLOYMENT . . . . .				
MAN-HOURS/PRODUCTION WORKERS. . . . .				
PRODUCTION WORKER WAGES/MAN-HOURS . . . . .				
COST OF MATERIALS AND PAYROLLS/TOTAL VALUE OF SHIPMENTS . . . . .				
COST OF MATERIALS/TOTAL VALUE OF SHIPMENTS. . . . .				
ADJUSTED VALUE ADDED/TOTAL EMPLOYMENT . . . . .				
SALARIES AND WAGES/ADJUSTED VALUE ADDED . . . . .				

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry. For a more complete explanation, see Introduction.

## PETROLEUM REFINING AND RELATED INDUSTRIES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 2911—Petroleum Refining
- 2951—Paving Mixtures and Blocks
- 2952—Asphalt Felts and Coatings
- 2992—Lubricating Oils and Greases
- 2999—Products of Petroleum and Coal, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 2911—PETROLEUM REFINING

This industry comprises establishments primarily engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, and other products from crude petroleum, and its fractionation products either through straight distillation of crude oil, redistillation of unfinished petroleum derivatives, cracking or other processes. Establishments primarily engaged in producing natural gasoline from natural gas are classified in mining industries. Those manufacturing lubricating oils and greases by blending and compounding purchased materials are included in industry 2992. For a detailed list of products of industry 2911, refer to table 6A, product codes 2911011 to 2911951.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Petroleum Refining Industry totaled \$16,497 million. This amount included shipments of refined petroleum products (primary products) valued at \$15,479 million, shipments of other products (secondary products) valued at \$341 million, and miscellaneous receipts (mainly contract work on materials owned by others) at \$677 million.

This industry's shipments of refined petroleum products represented 98 percent of its total product shipments. The industry specialization ratio in 1958 was also 98 percent. Secondary products shipped by this industry in 1963 consisted mainly of miscellaneous acyclic chemicals and chemical products (\$123 million), and cyclic intermediates (\$41 million).



Shipments of refined petroleum products by this industry represented 97 percent of all shipments of these products (\$15,983 million) by all industries. In 1958 the coverage ratio was 98 percent.

Lubricating oils, lubricating oil base stocks, and lubricating greases are not only produced by petroleum refineries but are also produced from purchased materials by plants blending and compounding lubricants and classified in industry 2992, Lubricating Oils and Greases. Plants classified in industries 2911 and 2992 shipped substantially all of the lubricating oils and greases valued at \$1,210 million, with industry 2911 accounting for 65 percent.

Oils are frequently transferred from one refinery to another for further processing and blending. This introduces some duplications in the "Value of products shipped" by the Petroleum Refining Industry, as shown in tables 1, 2, and 5. To eliminate duplication in the statistics for individual products, figures were collected on the amount of oil received by refineries during the year. Net (unduplicated) shipments were calculated, for the United States as a whole, by subtracting "Receipts" from the quantity shipped (see table 6A). These net shipments represent the quantity of petroleum products made available for consumption by the "Petroleum Refining" and "Lubricating Oils and Greases" Industries.

Industry 2911 also includes establishments primarily engaged in the production of petroleum based chemicals (petrochemicals). In 1963 there were 22 establishments with total shipments of \$455 million producing liquefied refinery gases and aromatics (see table 3).

Detailed product statistics for liquefied gases used as chemical raw material were not collected since these data are reported to the United States Tariff Commission and published in the report "Synthetic Organic Chemicals, United States Production and Sales."

Unlike most manufacturing industries where the receipts for contract work are reported as such, plants in industry 2911 processing oil on a contract basis for other companies were requested to report the commercial cost of all materials received and the market values, f.o.b. plant, for the products shipped.

Petroleum product statistics shown in this report are not directly comparable with the Bureau of Mines figures published in the Minerals Yearbook. The census of manufactures collects data on shipments, whereas the Bureau of Mines figures are in terms of "output" (production).

Data showing net shipments of gas liquids and related products covered in the 1963 economic censuses appear in the reports for the 1963 Census of Mineral Industries. Table 7A contains data showing the consumption of selected materials. Other data relating to "inputs" of materials appear as "receipts" in table 6A. Because fuel is an important item and furnishes a supply of material for alternative uses at the refinery, data showing United States totals consumed in the refineries appear in table 7E.

The production index for the primary products of the industry increased to 138 in 1963 from the 1958 level of 115. The unit value index for 1963 was 96 compared to 104 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 2951—PAVING MIXTURES AND BLOCKS

This industry comprises establishments primarily engaged in manufacturing asphalt and tar paving mixtures, and paving blocks made of asphalt, creosoted wood, and various compositions of asphalt or tar with other materials. Establishments primarily engaged in manufacturing brick, concrete, granite, and stone paving blocks are classified in Major Group 32. For a detailed list of products of industry 2951, refer to table 6A, product codes 2951011 to 2951098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Paving Mixtures and Blocks Industry totaled \$427 million. This amount included shipments of paving mixtures and blocks (primary products) valued at \$359 million, shipments of other products (secondary products) valued at \$31 million, and miscellaneous receipts at \$38 million.

This industry's shipments of paving mixtures and blocks represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 94 percent. Secondary products shipped by this industry in 1963 consisted mainly of crushed and broken miscellaneous stone (\$9 million) and ready-mixed concrete (\$7 million).

Shipments of paving mixtures and blocks by this industry represented 89 percent of all shipments of these products (\$403 million) by all industries. In 1958 the coverage ratio was 85 percent. Other industries shipping paving mixtures and blocks consisted mainly of industry 3273, Ready Mixed Concrete, \$15 million; and industry 2952, Asphalt Felts and Coatings, \$8 million.

#### 2952—ASPHALT FELTS AND COATINGS

This industry comprises establishments primarily engaged in manufacturing asphalt and other saturated roofing felts in roll or shingle form, either smooth or faced with grit, and in manufacturing roofing cements and coatings. Establishments primarily engaged in manufacturing paint are classified in industry 2851. For a detailed list of products of industry 2952, refer to table 6A, product codes 2952111 to 2952398.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Asphalt Felts and Coatings Industry totaled \$528 million. This amount included shipments of asphalt felts and coatings (primary products) valued at \$424 million, shipments of other products (secondary products) valued at \$48 million, and miscellaneous receipts (mainly resales) at \$56 million.

This industry's shipments of asphalt felts and coatings represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was also 90 percent. Secondary products shipped by this industry in 1963 included asbestos textiles and other asbestos and asbestos cement products (\$15 million), and paving mixtures and blocks (\$8 million).

Shipments of asphalt felts and coatings by this industry represented 92 percent of all shipments of these products (\$459 million) by all industries. In 1958 the coverage ratio was also 92 percent. Other industries shipping asphalt felts and coatings includes industry 2851, Paints and Allied Products, \$5 million; and industry 2951, Paving Mixtures and Blocks, \$3 million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 2952, e.g., asphalt and tar saturated felts and boards for nonbuilding use, 75 percent; and asphalt and tar coatings, cements, and pitches, 81 percent.

Monthly data on the quantity of asphalt and tar roofing and siding products are available from Current Industrial Reports Series M29A, "Asphalt and Tar Roofing and Siding Products."



The production index for the primary products of the industry increased to 118 in 1963 from the 1958 level of 105. The unit value index for 1963 was 102 compared to 101 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 2992—LUBRICATING OILS AND GREASES

This industry comprises establishments primarily engaged in blending and compounding lubricating oils and greases from purchased mineral, animal, and vegetable materials. Petroleum refineries engaged in the production of lubricating oils and greases are classified in industry 2911. For a detailed list of products of industry 2992, refer to table 6A, product codes 2992611 to 2992751.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Lubricating Oils and Greases Industry totaled \$471 million. This amount included shipments of lubricating oils and greases (primary products) valued at \$399 million, shipments of other products (secondary products) valued at \$40 million, and miscellaneous receipts (mainly resales) at \$32 million.

This industry's shipments of lubricating oils and greases represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 86 percent.

Shipments of lubricating oils and greases by this industry represented 33 percent of all shipments of these products (\$1,210 million) by all industries. In 1958 the coverage ratio was 35 percent. However, lubricating oils and greases are also primary to industry 2911, Petroleum Refining. A coverage ratio computed on the basis of including both industries to which lubricating oils and greases are primary would total 98 percent in 1963. Lubricating oils and greases (primary products) shipped by industry 2911, Petroleum Refining, totaled \$782 million. Other industries shipping lubricating oils and greases consisted mainly of industry 2842, Polishes and Sanitation Goods, \$3 million; and industry 2899, Chemical Preparations, N.E.C., \$3 million.

The production index for the primary products of the industry increased to 163 in 1963 from the 1958 level of 103. The unit value index for 1963 was 124 compared to 119 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 2999—PRODUCTS OF PETROLEUM AND COAL, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing fuel briquets, boulets, packaged fuel, powdered fuel, and other products of petroleum and coal, n.e.c. Wood charcoal briquets are classified in industry 2861. For a detailed list of products of industry 2999, refer to table 6A, product codes 2999015 to 2999098.

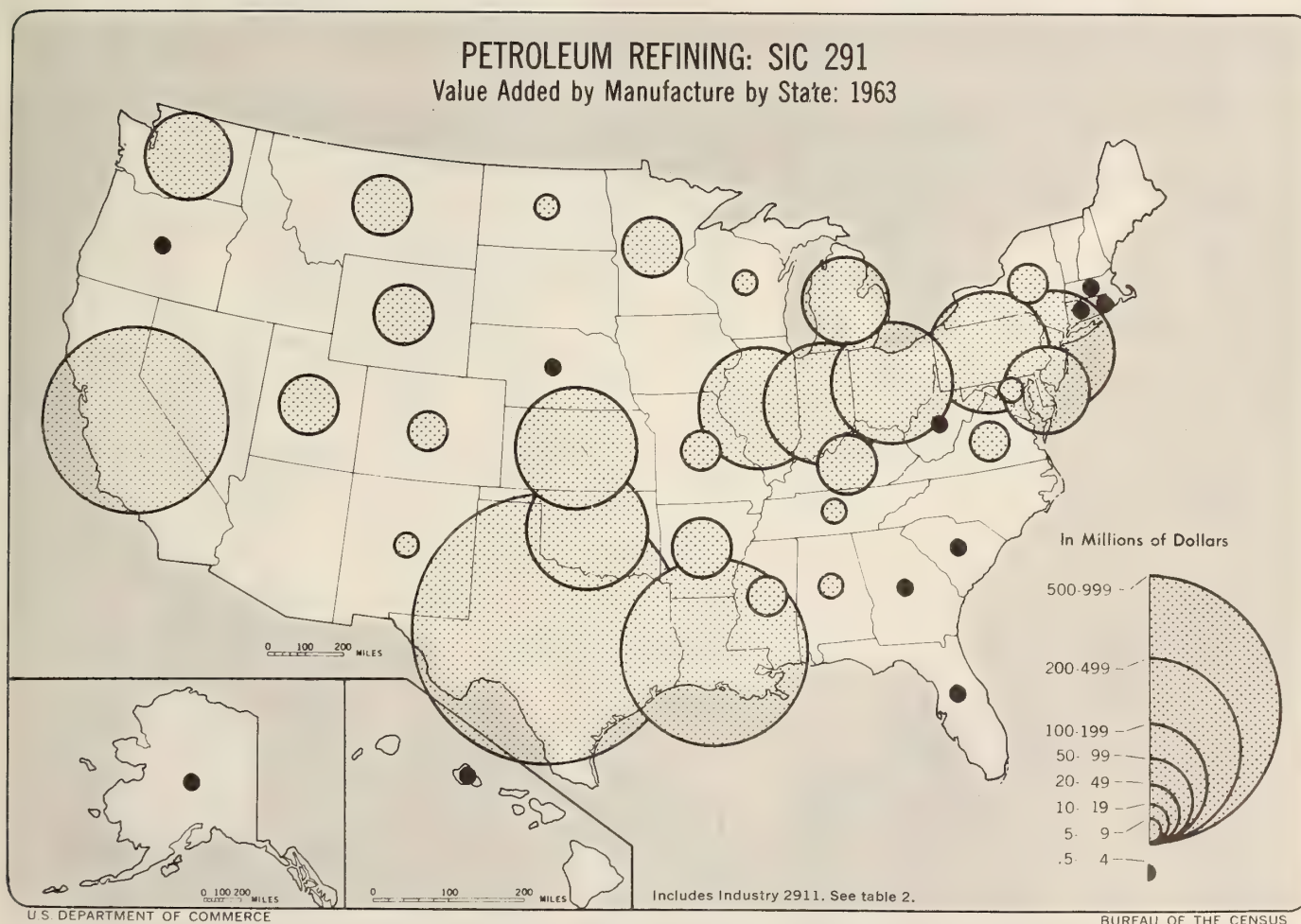
The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Petroleum and Coal Products, N.E.C., Industry totaled \$72 million. This amount included shipments of products of petroleum and coal, n.e.c., (primary products) valued at \$63 million, shipments of other products (secondary products) valued at \$3 million, and miscellaneous receipts (mainly resales) at \$6 million.

This industry's shipments of products of petroleum and coal, n.e.c., represented 96 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent.

Shipments of petroleum and coal products, n.e.c., by this industry represented 91 percent of all shipments of these products (\$69 million) by all industries. In 1958 the coverage ratio was 96 percent.

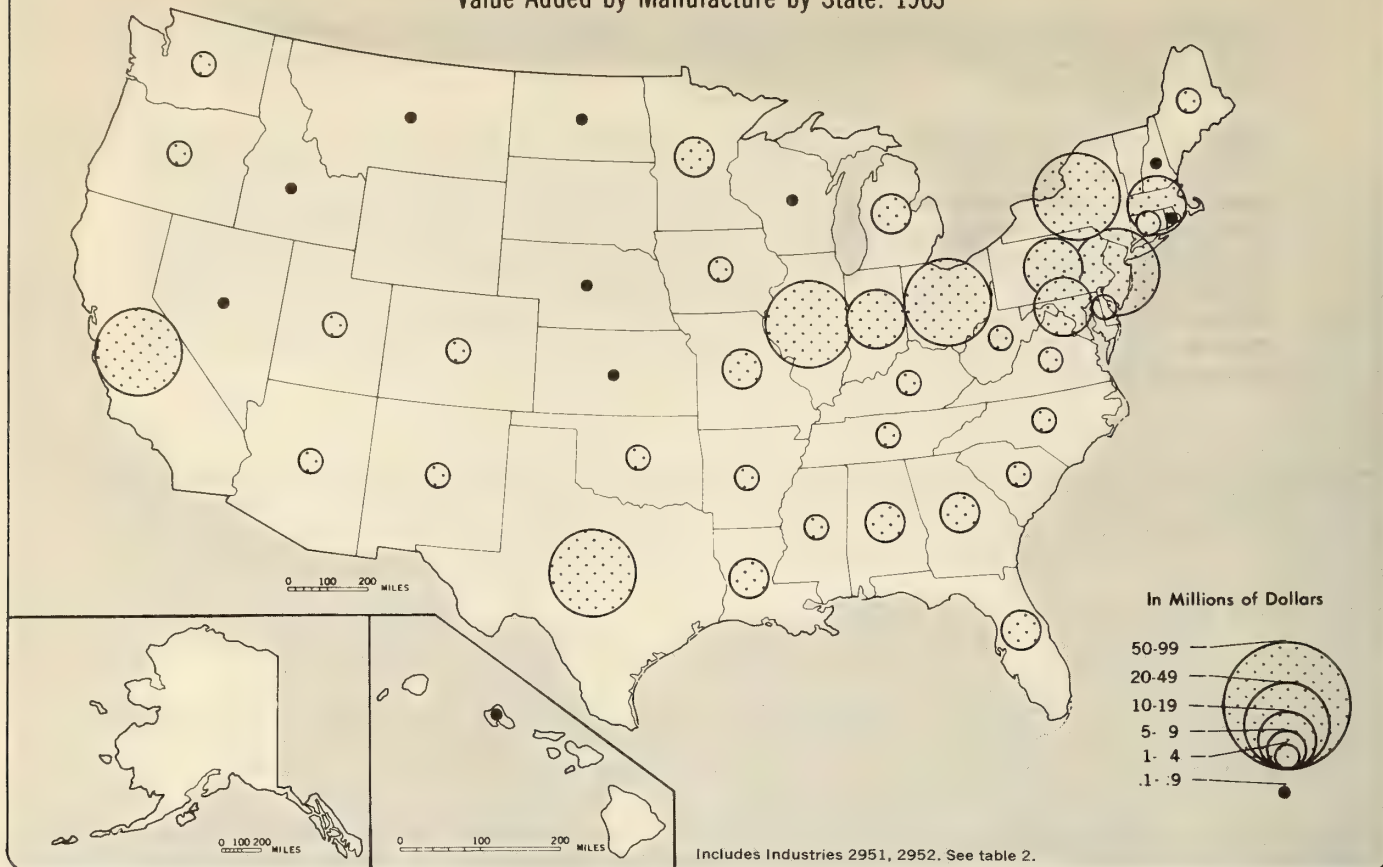
The figures for fuel briquets and packaged fuel appearing in this report exclude the quantities and amounts shipped by establishments producing wood charcoal briquets (industry 2861) as well as establishments classified in nonmanufacturing industries. They, therefore, differ from the figures published by the Bureau of Mines, United States Department of Interior, in the Minerals Yearbook which includes data for nonmanufacturing establishments such as retail or wholesale coal yards and public utilities which produce some fuel briquets as a secondary activity. The census figures for fuel briquets also include information for briquets made from charcoal and sawdust, data for which are omitted by the Bureau of Mines.





# PAVING AND ROOFING MATERIALS: SIC 295

Value Added by Manufacture by State: 1963

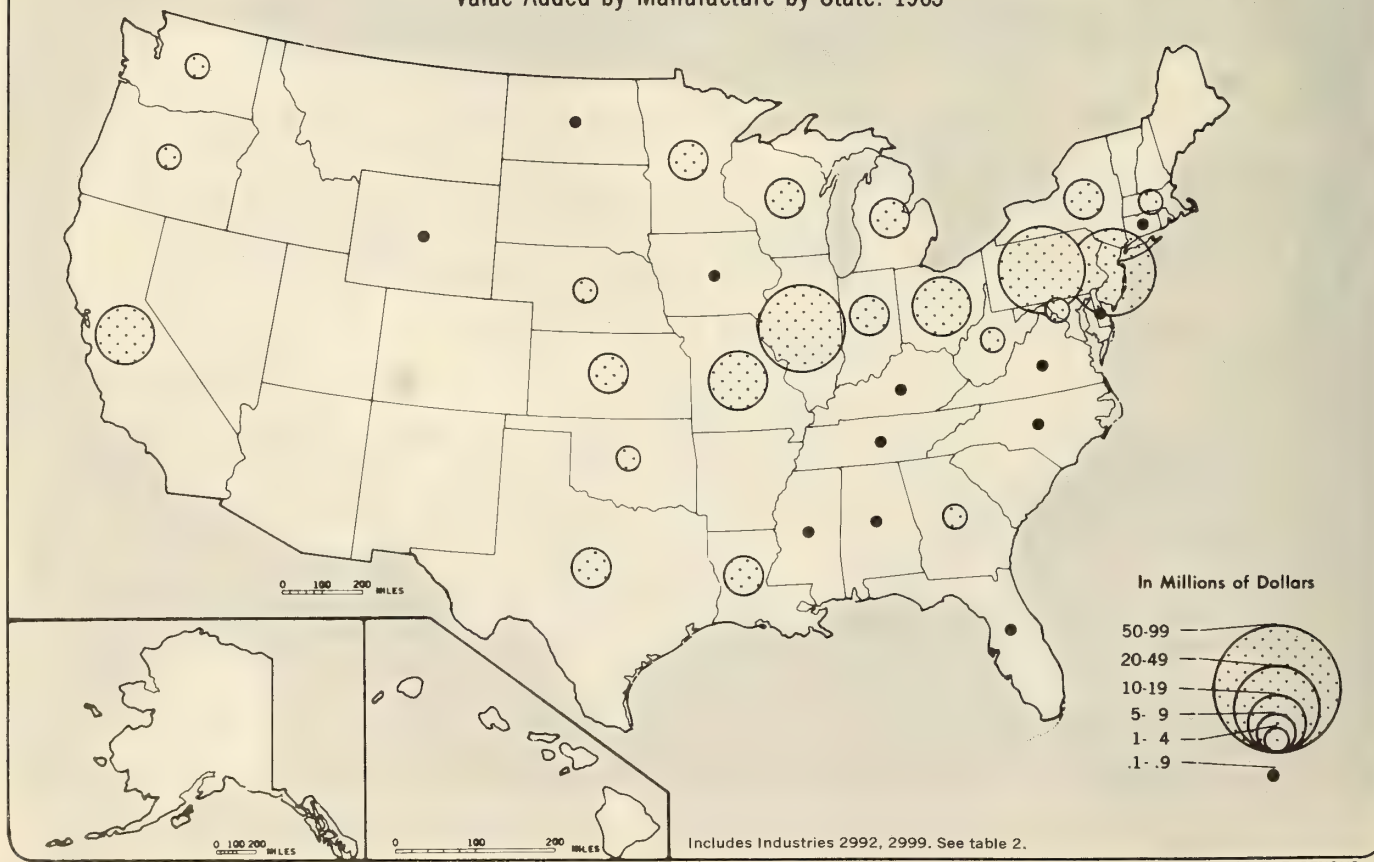


U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

# PETROLEUM AND COAL PRODUCTS, N.E.C.: SIC 299

Value Added by Manufacture by State: 1963



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1963 and Earlier Years

Year	Companies (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)	Specialization ratio (percent)	Coverage ratio (percent)
		Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 2911.—PETROLEUM REFINING														
1963.....	266	427	297	119,297	922,319	85,929	166,409	614,318	3,137,603	13,367,328	16,496,896	385,126	98	97
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	122,946	906,561	87,804	173,348	603,032	2,965,537	12,979,535	15,914,146	433,315	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	128,707	937,130	92,389	182,211	629,634	2,929,207	12,734,155	15,618,609	459,298	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	134,868	935,836	97,267	192,379	635,211	2,773,430	12,713,407	15,505,100	455,453	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	137,133	944,313	100,064	195,984	645,068	2,458,208	12,621,902	15,090,067	407,716	(NA)	(NA)
1958.....	289	446	313	146,025	944,332	106,898	207,609	648,278	2,119,402	12,249,444	14,539,055	656,788	98	98
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	153,920	979,262	112,546	222,399	665,245	2,868,179	12,271,740	14,920,173	876,523	98	98
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	153,786	931,107	114,231	225,734	645,072	2,960,559	11,421,680	14,185,451	686,780	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	150,821	849,095	112,080	221,241	591,642	2,434,720	10,490,971	12,866,470	533,297	(NA)	(NA)
1954.....	253	409	316	153,072	816,120	113,829	223,116	570,791	1,918,020	10,258,714	12,182,245	656,033	99	98
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	159,542	830,424	119,149	234,486	585,111	1,997,160	9,557,286	11,554,446	641,096	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	153,190	757,079	114,711	228,904	537,463	1,959,465	8,945,456	10,904,921	446,004	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	151,434	702,104	114,306	232,367	504,075	1,990,147	8,548,832	10,538,979	338,808	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	139,125	607,744	105,611	215,458	435,796	1,484,441	6,925,986	8,410,427	254,402	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	144,155	599,686	113,709	229,388	447,598	1,210,876	6,470,702	7,681,578	403,455	(NA)	(NA)
1947.....	277	437	(NA)	145,806	535,781	113,847	237,506	396,236	1,494,474	5,129,234	6,623,708	316,370	99	97
1939 <sup>2</sup> .....	(NA)	518	(NA)	(NA)	(NA)	72,982	(NA)	128,420	528,575	1,933,921	2,462,496	(NA)	(NA)	(NA)
1937.....	(NA)	365	(NA)	98,450	176,808	83,182	(NA)	140,415	482,439	2,064,307	2,546,746	(NA)	(NA)	(NA)
1935.....	(NA)	395	(NA)	92,111	143,452	77,402	(NA)	109,611	356,686	1,481,936	1,838,622	(NA)	(NA)	(NA)
1933.....	(NA)	389	(NA)	78,862	111,361	69,047	(NA)	89,793	314,200	1,064,437	1,378,637	(NA)	(NA)	(NA)
1931.....	(NA)	376	(NA)	(NA)	(NA)	68,824	(NA)	107,474	313,768	1,210,517	1,524,285	(NA)	(NA)	(NA)
1929.....	(NA)	390	(NA)	94,393	164,755	80,596	(NA)	131,177	608,324	2,031,341	2,639,665	(NA)	(NA)	(NA)
1927.....	(NA)	354	(NA)	83,293	144,617	71,234	(NA)	113,717	389,652	1,752,997	2,142,649	(NA)	(NA)	(NA)
1925.....	(NA)	359	(NA)	76,527	132,286	65,324	(NA)	104,645	486,979	1,889,678	2,376,657	(NA)	(NA)	(NA)
1923.....	(NA)	382	(NA)	82,759	138,402	66,717	(NA)	103,834	368,647	1,425,053	1,793,700	(NA)	(NA)	(NA)
1921.....	(NA)	366	(NA)	74,228	130,197	63,189	(NA)	102,294	345,270	1,382,170	1,727,440	(NA)	(NA)	(NA)
1919.....	(NA)	320	(NA)	73,414	116,369	58,889	(NA)	89,750	384,625	1,247,908	1,632,533	(NA)	(NA)	(NA)
1914.....	(NA)	176	(NA)	31,025	27,290	25,366	(NA)	19,397	71,096	325,265	396,361	(NA)	(NA)	(NA)
1909.....	(NA)	147	(NA)	16,598	13,759	13,929	(NA)	9,830	37,725	199,273	236,998	(NA)	(NA)	(NA)
1904.....	(NA)	98	(NA)	18,744	12,713	16,770	(NA)	9,989	35,618	139,387	175,005	(NA)	(NA)	(NA)
1899.....	(NA)	67	(NA)	13,400	8,528	12,199	(NA)	6,717	21,070	102,859	123,929	(NA)	(NA)	(NA)
INDUSTRY 2951.—PAVING MIXTURES AND BLOCKS														
1963.....	528	762	127	9,680	62,065	6,746	15,076	40,014	165,584	261,789	427,460	15,055	92	89
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	(8,262)	(52,157)	(6,179)	(13,985)	(34,928)	(144,985)	(199,181)	(344,757)	(17,086)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	(8,222)	(49,771)	(6,240)	(13,790)	(34,552)	(124,706)	(187,104)	(314,880)	(13,215)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	(7,931)	(46,503)	(6,032)	(13,065)	(32,279)	(131,396)	(172,512)	(303,973)	(11,726)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	(8,115)	(44,380)	(5,977)	(12,147)	(28,459)	(112,921)	(150,955)	(265,742)	(10,673)	(NA)	(NA)
1958.....	415	563	89	7,797	42,028	5,823	11,708	28,130	112,548	154,949	267,676	9,856	94	85
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,763	26,376	4,237	9,105	16,947	77,713	86,264	158,078	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,093	23,388	3,763	7,646	14,858	59,746	81,192	138,637	(S)	(NA)	(NA)
1954.....	252	326	47	4,367	20,092	3,260	6,688	12,508	52,145	81,334	133,178	5,367	97	94
1947.....	182	264	(NA)	2,785	8,565	2,042	(NA)	5,618	23,249	27,728	50,977	(NA)	99	88
1939.....	(NA)	231	(NA)	3,193	4,494	2,437	(NA)	2,681	13,728	19,026	32,754	(NA)	(NA)	(NA)
1937.....	(NA)	148	(NA)	2,456	3,407	1,946	(NA)	2,419	10,684	14,605	25,289	(NA)	(NA)	(NA)
1935.....	(NA)	132	(NA)	2,660	3,570	2,231	(NA)	2,514	7,901	9,984	17,885	(NA)	(NA)	(NA)
1933.....	(NA)	93	(NA)	1,348	1,569	1,151	(NA)	1,215	4,663	6,287	10,950	(NA)	(NA)	(NA)
1931.....	(NA)	97	(NA)	(NA)	(NA)	1,081	(NA)	1,556	7,416	8,587	16,003	(NA)	(NA)	(NA)
1929 <sup>3</sup> .....	(NA)	77	(NA)	(NA)	(NA)	1,376	(NA)	2,187	10,062	11,998	22,060	(NA)	(NA)	(NA)
INDUSTRY 2952.—ASPHALT FELTS AND COATINGS														
1963.....	126	230	140	14,581	82,477	10,894	23,046	57,328	189,981	339,006	527,632	6,954	90	92
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	(13,301)	(78,468)	(9,514)	(20,379)	(54,459)	(180,128)	(313,794)	(494,070)	(21,850)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	(13,099)	(73,969)	(9,439)	(19,632)	(51,080)	(183,983)	(296,278)	(474,882)	(7,786)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	(17,331)	(97,871)	(13,633)	(27,874)	(70,399)	(242,791)	(310,629)	(555,622)	(13,086)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	(15,221)	(80,357)	(11,409)	(24,296)	(56,926)	(178,816)	(316,974)	(495,251)	(6,789)	(NA)	(NA)
1958.....	119	209	128	15,520	77,444	11,541	24,009	54,007	156,487	304,421	460,104	6,613	90	92
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,692	74,506	13,548	28,966	57,082	176,499	278,450	447,881	(S)	(NA)	(NA)
1954.....	108	197	120	15,730	68,054	12,507	26,950	50,863	155,607	276,808	431,607	7,787	91	94
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,537	72,873	13,516	29,091	53,024	155,790	256,088	411,878	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,397	74,811	13,795	31,329	55,329	161,439	263,770	425,209	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,235	72,751	14,845	32,677	53,927	164,079	278,015	442,094	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,549	65,221	14,255	32,231	48,676	173,814	239,681	413,495	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,213	50,843	12,149	25,609	36,814	123,458	200,266	323,724	(NA)	(NA)	(NA)
1947.....	104	174	(NA)	16,506	49,552	13,761	(NA)	38,435	132,565	205,654	338,219	(NA)	95	95
1939.....	(NA)	135	(NA)	(NA)	(NA)	8,187	(NA)	10,032	48,079	62,359	110,438	(NA)	(NA)	(NA)
1937.....	(NA)	111	(NA)	8,520	11,831	7,418	(NA)	9,520	39,918	62,644	102,562	(NA)	(NA)	(NA)
1933.....	(NA)	74	(NA)	5,053	5,547	4,418	(NA)	4,436	20,940	23,893	44,833	(NA)	(NA)	(NA)
1931.....	(NA)	83	(NA)	(NA)	(NA)	4,123	(NA)	5,331	26,257	32,706	58,963	(NA)	(NA)	(NA)

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
	INDUSTRY 2952.—ASPHALT FELTS AND COATINGS—Continued													
1929.....	(NA)	102	(NA)	7,411	12,456	6,027	(NA)	8,952	42,114	61,392	103,506	(NA)	(NA)	(NA)
1927.....	(NA)	100	(NA)	8,997	15,177	7,255	(NA)	10,713	55,882	67,328	123,210	(NA)	(NA)	(NA)
1925.....	(NA)	140	(NA)	10,149	16,940	8,310	(NA)	12,145	44,994	78,597	123,591	(NA)	(NA)	(NA)
1923.....	(NA)	122	(NA)	9,676	15,137	7,665	(NA)	10,826	28,822	55,520	84,342	(NA)	(NA)	(NA)
1921.....	(NA)	136	(NA)	8,640	12,945	6,908	(NA)	9,213	31,180	45,013	76,193	(NA)	(NA)	(NA)
1919.....	(NA)	178	(NA)	11,726	15,759	8,871	(NA)	10,344	33,307	52,588	85,895	(NA)	(NA)	(NA)
1914.....	(NA)	170	(NA)	5,334	4,620	4,088	(NA)	2,642	10,373	17,605	27,978	(NA)	(NA)	(NA)
1909 <sup>4</sup> .....	(NA)	117	(NA)	3,484	2,720	2,465	(NA)	1,339	6,746	12,458	19,204	(NA)	(NA)	(NA)
	INDUSTRY 2992.—LUBRICATING OILS AND GREASES													
1963.....	311	353	108	8,433	57,946	4,701	9,778	27,007	199,074	273,833	471,229	4,703	91	<sup>5</sup> 33
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	(6,784)	(45,722)	(4,000)	(8,772)	(21,724)	(114,569)	(222,635)	(336,360)	(2,550)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	(6,555)	(44,014)	(3,829)	(8,791)	(20,366)	(106,982)	(207,712)	(316,296)	(10,025)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	(7,829)	(50,451)	(4,776)	(10,341)	(24,414)	(128,444)	(220,978)	(349,106)	3,256	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	(7,907)	(47,942)	(4,685)	(10,160)	(22,807)	(115,061)	(215,039)	(328,969)	(4,859)	(NA)	(NA)
1958.....	284	306	90	7,568	42,349	4,484	8,588	20,441	103,084	177,521	281,377	7,230	86	<sup>5</sup> 35
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,472	45,672	4,832	9,183	22,113	105,415	166,791	262,368	3,338	84	<sup>5</sup> 17
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,584	44,919	4,971	9,610	22,255	110,652	164,347	264,966	5,286	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,427	43,323	4,944	9,770	21,065	106,079	154,719	251,717	4,808	(NA)	(NA)
1954.....	265	283	84	8,159	40,062	4,702	9,414	18,912	90,661	172,639	265,111	4,314	87	<sup>5</sup> 18
1947 <sup>6</sup> .....	205	275	(NA)	8,002	26,263	5,070	(NA)	13,421	80,289	119,068	199,357	(NA)	89	<sup>5</sup> 19
1939 <sup>2</sup> .....	(NA)	199	(NA)	(NA)	(NA)	1,986	(NA)	2,507	19,414	28,274	47,688	(NA)	(NA)	(NA)
1937 <sup>7</sup> .....	(NA)	195	(NA)	3,260	5,309	2,231	(NA)	2,839	18,726	25,387	44,113	(NA)	(NA)	(NA)
1933.....	(NA)	158	(NA)	2,414	3,184	1,794	(NA)	2,087	11,928	16,774	28,702	(NA)	(NA)	(NA)
1931.....	(NA)	168	(NA)	(NA)	(NA)	2,115	(NA)	2,960	18,895	22,809	41,704	(NA)	(NA)	(NA)
1929 <sup>7</sup> .....	(NA)	177	(NA)	4,059	7,906	2,577	(NA)	3,739	30,013	39,571	69,584	(NA)	(NA)	(NA)
	INDUSTRY 2999.—PETROLEUM AND COAL PRODUCTS, N.E.C. <sup>8</sup>													
1963.....	59	67	17	1,495	8,958	1,178	2,370	6,456	20,989	49,570	71,525	1,843	96	91
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	(2,988)	(13,976)	(2,488)	(4,799)	(10,096)	(33,822)	(71,328)	(103,208)	(4,612)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	(3,021)	(13,218)	(2,483)	(4,528)	(9,439)	(37,232)	(68,117)	(102,633)	(4,645)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	(3,103)	(15,277)	(2,476)	(6,106)	(10,947)	(32,459)	(68,090)	(99,714)	(1,258)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	(2,516)	(11,022)	2,059	(3,883)	(8,108)	(29,202)	(49,914)	(78,583)	(1,946)	(NA)	(NA)
1958.....	74	84	33	2,256	10,520	1,762	3,446	7,566	26,903	48,715	74,855	1,318	95	96
1954.....	39	47	25	2,009	8,905	1,544	3,141	6,167	24,437	39,572	63,496	(2)	94	89
1947.....	(NA)	112	(NA)	1,697	4,808	1,453	(NA)	4,042	17,354	30,137	47,491	(NA)	(NA)	(NA)

Note: See appendix A for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$500 thousand. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Beginning with the year 1939 establishments engaged in re-refining crankcase drainings and other used oils have been included in the figures for "Petroleum refining;" for earlier years, such establishments were included under "Lubricating oils and greases".

<sup>3</sup>The figures for "Paving mixtures and blocks" prior to 1929 are not sufficiently comparable with those for later years to be shown in this table because they include data for quarrying and crushing stone which is classified in mineral industries.

<sup>4</sup>Data for certain asbestos products are included in the figures for 1909.

<sup>5</sup>Included in the coverage ratio shown for this industry are lubricating oils and greases which are also primary to Industry 2911, Petroleum Refining. A 1963 coverage ratio computed on the basis of including both industries to which lubricating oils and greases are primary would total 98 percent: 65 percent by industry 2911, and 33 percent by industry 2992. The remaining 2 percent was shipped by establishments in other industries. Computed on the basis of excluding industry 2911, the 1963 coverage ratio is 93 percent for industry 2992. (Also see tables 5A and 5B.)

<sup>6</sup>The 1947 data have been revised for comparability with 1954 by including data for establishments primarily engaged in shipping lubricants and greases made from animal and animal and vegetable oils (classified in industry 2899 in 1947). The figures for 1929-1939 are comparable with those for 1947 and 1954.

<sup>7</sup>The figures for 1935 and years prior to 1929 include only lubricating greases and, therefore, are not sufficiently comparable with other years to be given in this table.

<sup>8</sup>Includes fuel briquets and packaged fuel (except wood charcoal briquets). Comparable figures are not available prior to 1947.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
INDUSTRY 2911.—PETROLEUM REFINING													
Total.....	427	297	119,297	922,319	85,929	166,409	614,318	3,137,603	13,367,328	16,496,896	385,126	146,025	2,119,402
Northeast.....	53	35	18,524	143,259	13,915	27,846	100,757	366,310	1,954,933	2,329,204	34,027	24,492	216,959
New Jersey.....	14	10	5,843	48,484	4,159	8,117	31,912	176,307	871,251	1,056,480	8,308	8,191	68,918
Pennsylvania.....	24	17	11,429	85,202	8,874	18,000	62,021	165,372	896,773	1,061,124	24,395	14,112	128,768
East North Central.....	68	49	19,366	154,675	14,097	27,078	103,529	498,142	2,215,184	2,712,341	26,058	25,347	409,878
Ohio.....	15	11	3,559	29,209	2,610	5,095	20,303	103,818	591,450	697,620	5,131	4,595	101,480
Indiana.....	15	12	6,566	52,430	4,910	9,331	36,555	138,182	602,003	744,355	6,992	9,156	108,348
Illinois.....	16	12	7,024	55,862	5,022	9,128	35,144	179,299	795,867	969,882	11,354	9,377	157,209
Michigan.....	15	10	1,960	15,466	1,381	3,155	10,405	71,655	199,045	268,864	2,063	1,982	39,823
Wisconsin.....	7	4	257	1,708	174	369	1,122	5,188	26,819	31,620	518	237	3,018
West North Central.....	29	23	5,481	40,951	4,065	8,563	28,058	164,633	663,836	821,186	32,648	6,479	121,647
Kansas.....	17	14	3,698	26,143	2,918	6,173	19,358	107,248	432,902	533,712	15,797	4,169	69,595
South Atlantic.....	19	12	1,900	15,113	1,275	2,626	8,905	93,207	328,820	421,490	(D)	2,133	51,933
East South Central.....	16	11	1,513	12,003	1,129	2,263	8,745	50,690	262,083	296,243	(D)	1,585	35,777
Mississippi.....	5	4	344	3,722	279	567	3,133	12,704	70,019	68,309	(D)	( <sup>2</sup> )	( <sup>2</sup> )
West South Central.....	133	99	49,907	392,542	35,450	68,716	256,133	1,365,144	5,682,662	7,047,217	144,180	61,537	885,231
Arkansas.....	8	6	1,005	7,456	767	1,562	5,456	20,556	92,467	112,025	834	1,154	15,622
Louisiana.....	19	17	10,004	81,342	6,011	11,730	44,194	258,454	1,140,321	1,410,157	26,678	13,123	190,981
Oklahoma.....	23	15	5,198	35,073	4,203	8,230	27,880	109,779	538,254	640,620	4,303	6,136	106,606
Texas.....	83	61	33,700	268,671	24,469	47,194	178,603	976,355	3,911,620	4,884,415	112,365	41,124	572,022
Mountain.....	44	30	4,934	36,506	3,464	6,908	24,952	111,229	418,141	534,004	21,709	5,669	97,788
Colorado.....	12	7	708	5,271	554	1,123	3,995	14,368	52,091	65,825	1,331	591	10,609
Utah.....	5	4	880	6,560	647	1,367	4,783	24,203	109,955	135,956	1,359	1,075	28,275
Pacific.....	65	38	17,672	127,270	12,534	22,409	83,239	488,248	1,841,669	2,335,211	69,686	18,783	300,199
California.....	50	31	16,262	116,102	11,611	20,609	76,589	417,094	1,592,429	2,018,888	54,079	17,633	269,563
INDUSTRY 2951.—PAVING MIXTURES AND BLOCKS													
Total.....	762	127	9,680	62,065	6,746	15,076	40,014	165,584	261,789	427,460	15,055	7,797	112,548
New England.....	64	12	945	6,314	662	1,487	3,580	15,243	25,313	40,457	1,688	771	9,468
Massachusetts.....	35	9	606	3,978	414	1,018	2,329	9,901	15,249	25,217	942	391	5,722
Connecticut.....	19	1	214	1,528	150	230	716	3,490	6,941	10,258	500	( <sup>2</sup> )	( <sup>2</sup> )
Middle Atlantic.....	198	27	2,078	14,251	1,396	3,136	9,193	39,494	63,771	103,291	3,524	1,697	29,976
New York.....	101	15	997	7,550	673	1,443	4,871	21,124	33,715	54,818	1,973	899	17,365
New Jersey.....	31	4	446	3,456	319	748	2,358	10,044	13,724	23,803	840	218	4,320
Pennsylvania.....	66	8	635	3,245	404	945	1,964	8,526	16,332	24,670	711	580	8,291
East North Central.....	159	29	2,062	14,106	1,463	3,159	8,716	36,564	55,586	91,965	2,724	1,632	22,025
Ohio.....	81	12	834	5,414	576	1,271	3,344	14,672	24,419	38,894	1,088	497	7,724
Indiana.....	24	4	265	2,076	193	434	1,257	6,197	6,283	12,476	447	241	3,311
Illinois.....	21	5	462	3,404	299	677	1,865	7,792	11,147	18,946	643	473	4,990
Michigan.....	25	7	431	2,797	346	688	2,016	7,153	12,640	19,798	515	374	5,479
West North Central.....	32	4	353	2,354	275	652	1,788	7,289	8,291	15,642	475	471	5,869
Missouri.....	7	2	121	877	103	236	751	3,254	1,983	5,235	135	( <sup>2</sup> )	( <sup>2</sup> )
South Atlantic.....	103	18	1,677	8,888	1,252	2,974	6,190	20,946	44,284	65,479	2,610	1,060	14,458
Maryland.....	22	4	591	3,566	451	1,214	2,572	8,037	17,134	25,162	1,298	407	7,050
Florida.....	24	8	485	2,404	331	793	1,491	5,158	8,870	14,153	547	266	2,820
East South Central.....	53	5	466	2,328	295	684	1,319	9,469	14,734	24,254	746	451	5,998
Alabama.....	20	3	248	1,255	155	364	668	5,032	5,784	10,845	322	297	3,184
West South Central.....	42	7	508	2,125	403	922	1,632	5,291	9,004	14,296	419	302	3,040
Louisiana.....	12	2	119	432	95	193	333	1,373	2,169	3,542	120	112	887
Texas.....	19	5	298	1,302	233	558	1,001	2,477	3,821	6,299	244	( <sup>2</sup> )	( <sup>2</sup> )
Mountain.....	17	6	309	2,122	156	324	1,114	3,638	6,725	10,331	304	193	2,940
Pacific.....	94	19	1,282	9,577	844	1,738	6,482	27,650	34,081	61,745	2,565	1,220	18,774
Washington.....	7	3	165	1,010	94	240	629	2,709	2,196	4,904	565	( <sup>2</sup> )	( <sup>2</sup> )
California.....	81	13	983	7,743	667	1,326	5,334	23,761	29,539	53,315	1,942	( <sup>2</sup> )	( <sup>2</sup> )

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufac- ture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	All em- ployees	Value added by manufac- ture, adjusted
	Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man- hours (1,000)	Wages (\$1,000)						
	INDUSTRY 2952.—ASPHALT FELTS AND COATINGS												
Total.....	230	140	14,581	82,477	10,894	23,046	57,328	189,981	339,006	527,632	6,954	15,520	156,487
New England.....	9	5	619	3,527	501	1,109	2,654	7,126	13,293	20,289	312	665	6,205
Middle Atlantic....	37	21	2,235	13,632	1,764	3,754	10,214	29,021	61,348	90,197	1,916	2,755	27,111
New York.....	6	3	127	743	82	168	425	1,588	2,656	4,226	8	304	1,969
New Jersey.....	16	11	1,410	8,799	1,133	2,402	6,753	18,637	38,964	57,564	1,748	1,659	17,366
Pennsylvania.....	15	7	698	4,090	549	1,184	3,036	8,796	19,728	28,407	160	792	7,776
East North Central.	56	35	4,431	26,658	3,430	7,240	19,414	61,355	95,085	156,431	2,235	5,277	53,214
Ohio.....	17	11	1,366	8,420	1,048	2,219	6,020	21,530	21,161	42,828	1,143	1,558	19,607
Indiana.....	8	4	368	2,220	270	590	1,465	4,453	7,353	11,890	245	370	3,343
Illinois.....	24	18	2,578	15,336	2,027	4,251	11,470	33,552	63,244	96,570	815	3,246	29,426
Michigan.....	7	2	119	682	85	180	459	1,820	3,327	5,143	32	103	838
West North Central.	14	9	936	5,524	750	1,627	3,988	10,504	22,663	32,962	402	961	9,245
Missouri.....	8	5	507	2,953	424	927	2,337	5,398	12,047	17,349	161	( <sup>2</sup> )	( <sup>2</sup> )
South Atlantic.....	29	16	1,202	6,285	954	2,082	4,669	18,381	39,627	57,570	547	1,083	11,592
Georgia.....	7	6	457	2,336	360	780	1,785	7,386	16,684	23,627	95	349	4,178
Florida.....	10	4	188	811	156	296	552	2,056	5,152	7,162	38	207	2,218
East South Central.	13	8	696	3,244	533	1,074	2,230	6,617	13,049	19,831	355	528	4,196
Alabama.....	4	3	281	1,545	216	400	1,065	3,364	6,309	9,742	66	( <sup>2</sup> )	( <sup>2</sup> )
West South Central.	35	27	2,752	13,385	1,667	3,418	7,205	31,562	47,902	79,492	586	2,502	21,369
Louisiana.....	7	6	591	3,119	487	997	2,415	6,497	15,043	21,696	115	657	5,406
Texas.....	22	15	1,634	7,986	752	1,474	3,243	19,959	24,501	44,403	367	1,458	13,590
Mountain.....	7	3	233	1,062	177	370	734	2,647	4,877	7,514	116	124	1,070
Pacific.....	30	16	1,477	9,160	1,118	2,372	6,220	22,768	41,162	63,346	485	1,625	22,485
California.....	20	11	1,145	7,280	869	1,870	4,897	16,914	30,789	47,140	429	1,338	18,556
	INDUSTRY 2992.—LUBRICATING OILS AND GREASES												
Total.....	353	108	8,433	57,946	4,701	9,778	27,007	199,074	273,833	471,229	4,703	7,568	103,084
New England.....	14	3	199	1,395	102	231	577	4,885	4,095	8,842	182	192	2,428
Middle Atlantic....	89	34	2,965	21,389	1,796	3,636	10,615	61,524	85,030	144,997	1,346	2,675	37,151
Pennsylvania.....	37	16	1,277	10,369	649	1,400	3,951	21,962	30,523	52,020	606	1,098	16,327
North Central.....	140	53	3,742	25,733	1,871	3,843	10,711	100,696	124,787	225,655	2,167	3,194	47,493
Wisconsin.....	11	4	178	1,111	85	178	551	5,774	4,806	10,781	(D)	294	6,287
Missouri.....	14	8	514	3,143	235	461	1,281	16,364	17,436	33,846	91	346	6,242
South.....	58	11	1,028	5,881	617	1,415	3,262	14,155	40,862	54,835	610	999	8,666
West.....	52	7	499	3,548	315	653	1,842	17,814	19,059	36,900	398	508	7,352
	INDUSTRY 2999.—PETROLEUM AND COAL PRODUCTS, N.E.C.												
Total.....	67	17	1,495	8,958	1,178	2,370	6,456	20,989	49,570	71,525	1,843	2,256	26,903
Northeast.....	10	2	125	643	97	189	469	668	1,772	2,515	35	237	1,748
Pennsylvania.....	6	2	117	613	91	177	445	638	1,680	2,389	31	159	1,190
North Central.....	25	7	861	5,054	683	1,369	3,608	8,596	23,115	32,300	417	1,147	12,198
South.....	22	3	304	2,007	245	511	1,533	7,894	16,486	24,601	1,109	630	8,863
West.....	10	5	205	1,254	153	301	846	3,831	8,197	12,109	282	242	4,094

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.  
 SIC 2911, Petroleum Refining: New England—New Hampshire, 1 (1-19); Massachusetts, 3 (122); Rhode Island, 1 (100-249); Connecticut, 2 (20-99); Middle Atlantic—New York, 8 (975); West North Central—Minnesota, 6 (824); Missouri, 2 (500-999); North Dakota, 2 (250-499); Nebraska, 2 (20-99); South Atlantic—Delaware, 2 (500-999); Maryland, 3 (332); Virginia, 3 (250-499); West Virginia, 2 (250-499); South Carolina, 1 (20-99); Georgia, 4 (131); Florida, 4 (20-99); East South Central—Kentucky, 4 (744); Tennessee, 1 (100-249); Alabama, 6 (100-249); Mountain—Montana, 9 (500-999); Wyoming, 10 (1000-2499); Colorado, 4 (100-249); New Mexico, 6 (250-499); Arizona, 2 (1-19); Pacific—Washington, 9 (1108); Oregon, 3 (20-99); Alaska, 2 (20-99); Hawaii, 1 (100-249).

Footnotes continued on next page.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

## Footnotes for Table 2-29A—Continued

IC 2951, Paving Mixtures and Blocks: New England—Maine, 3 (20-99); New Hampshire, 3 (20-99); Vermont, 1 (1-19); Rhode Island, 3 (1-19); East North Central—Wisconsin, 8 (20-99); West North Central—Minnesota, 7 (20-99); Iowa, 9 (20-99); North Dakota, 1 (1-19); South Dakota, 1 (1-19); Nebraska, 2 (1-19); Kansas, 5 (20-99); South Atlantic—Delaware, 5 (20-99); Virginia, 9 (100-249); West Virginia, 18 (100-249); North Carolina, 8 (20-99); South Carolina, 8 (20-99); Georgia, 9 (20-99); East South Central—Kentucky, 11 (20-99); Tennessee, 14 (20-99); Mississippi, 8 (20-99); West South Central—Arkansas, 4 (20-99); Oklahoma, 7 (20-99); Mountain—Montana, 1 (1-19); Idaho, 1 (1-19); Arizona, 4 (20-99); Utah, 5 (20-99); Nevada, 2 (20-99); Pacific—Oregon, 5 (20-99); Hawaii, 1 (20-99).

IC 2952, Asphalt Felts and Coatings: New England—Massachusetts, 7 (500-999); Connecticut, 2 (20-99); West North Central—Minnesota, 5 (250-499); Kansas, 1 (1-19); South Atlantic—Delaware, 2 (20-99); Maryland, 3 (119); Virginia, 1 (1-19); West Virginia, 2 (100-249); North Carolina, 3 (20-99); South Carolina, 1 (100-249); East South Central—Kentucky, 2 (20-99); Tennessee, 6 (213); Mississippi, 1 (100-249); West South Central—Arkansas, 4 (250-499); Oklahoma, 2 (100-249); Mountain—Colorado, 2 (20-99); New Mexico, 2 (100-249); Arizona, 1 (1-19); Utah, 2 (20-99); Pacific—Washington, 3 (20-99); Oregon, 7 (248).

IC 2992, Lubricating Oils and Greases: New England—Massachusetts, 13 (100-249); Connecticut, 1 (20-99); Middle Atlantic—New York, 29 (250-499); New Jersey, 23 (1000-2499); East North Central—Ohio, 36 (1001); Indiana, 4 (100-249); Illinois, 31 (1091); Michigan, 25 (274); West North Central—Minnesota, 6 (100-249); Iowa, 4 (20-99); Nebraska, 2 (100-249); Kansas, 7 (100-249); South Atlantic—Delaware, 1 (1-19); Maryland, 5 (100-249); Virginia, 1 (1-19); North Carolina, 1 (1-19); South Carolina, 1 (1-19); Georgia, 5 (20-99); Florida, 2 (20-99); East South Central—Kentucky, 1 (1-19); Tennessee, 3 (1-19); Alabama, 2 (1-19); Mississippi, 2 (20-99); West South Central—Arkansas, 1 (1-19); Louisiana, 6 (250-499); Oklahoma, 6 (100-249); Texas, 21 (142); Mountain—Wyoming, 1 (1-19); Utah, 1 (1-19); Pacific—Washington, 6 (20-99); Oregon, 1 (1-19); California, 43 (445).

IC 2999, Petroleum and Coal Products, N.E.C.: New England—Maine, 1 (1-19); Middle Atlantic—New York, 1 (1-19); New Jersey, 2 (1-19); East North Central—Ohio, 4 (20-99); Indiana, 2 (1-19); Illinois, 5 (191); Michigan, 3 (20-99); Wisconsin, 5 (20-99); West North Central—Minnesota, 1 (1-19); Missouri, 4 (417); North Dakota, 1 (20-99); South Atlantic—West Virginia, 3 (20-99); North Carolina, 1 (1-19); South Carolina, 1 (1-19); Georgia, 2 (1-19); East South Central—Tennessee, 2 (1-19); Mississippi, 3 (1-19); West South Central—Arkansas, 1 (1-19); Louisiana, 1 (20-99); Oklahoma, 2 (1-19); Texas, 6 (189); Mountain—Wyoming, 1 (20-99); Arizona, 1 (1-19); Utah, 1 (1-19); Pacific—Oregon, 1 (1-19); California, 6 (182).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.



TABLE 3. Detailed Statistics: 1963

Item	Petroleum refining (SIC 2911)				Paving mixtures and blocks (SIC 2951)	Asphalt felts and coatings (SIC 2952)	Lubricating oils and greases (SIC 2992)	Petroleum and coal products, n.e.c. (SIC 2999)
	All establishments	Subindustry						
		Establishments refining petroleum	Establishments producing petrochemicals	Other establishments <sup>1</sup>				
Primary product specialization ratio <sup>2</sup> .....	.98	(NA)	(NA)	(NA)	.92	.90	.91	.96
Coverage ratio <sup>3</sup> .....	.97	(NA)	(NA)	(NA)	.89	.92	4.33	.91
Establishments, total.....number..	427	290	22	115	762	230	353	67
With 1 to 19 employees.....do....	130	31	2	97	635	90	245	50
With 20 to 99 employees.....do....	103	83	4	16	119	96	93	14
With 100 employees or more.....do....	194	176	16	2	8	44	15	3
Proprietors and working partners.....do....	71	(NA)	(NA)	(NA)	108	29	86	24
All employees (average for the year).....do....	119,297	112,673	5,309	1,315	9,680	14,581	8,433	1,495
Payroll (all employees), total for year.....\$1,000..	922,319	872,319	41,857	8,143	62,065	82,477	57,946	8,958
Production workers:								
Average for the year.....number..	85,929	81,768	3,302	859	6,746	10,894	4,701	1,178
March.....do....	85,879	81,774	3,255	850	4,852	9,421	4,570	1,099
May.....do....	85,902	81,764	3,291	847	7,039	11,414	4,634	1,193
August.....do....	87,094	82,858	3,350	886	7,954	12,131	4,874	1,163
November.....do....	84,799	80,631	3,312	856	7,129	10,598	4,714	1,273
Man-hours.....1,000..	166,409	157,841	6,688	1,880	15,076	23,046	9,778	2,370
January-March.....do....	41,639	39,518	1,663	458	2,515	4,785	2,380	539
April-June.....do....	42,059	39,911	1,682	466	3,983	6,110	2,500	583
July-September.....do....	41,452	39,313	1,665	474	4,654	6,661	2,473	606
October-December.....do....	41,259	39,099	1,678	482	3,924	5,490	2,425	642
Wages.....\$1,000..	614,318	585,271	23,983	5,064	40,014	57,328	27,007	6,456
Cost of materials, etc., total.....do....	13,367,328	13,075,851	259,672	31,805	261,789	339,006	273,833	49,570
Materials, parts, containers, and supplies consumed.....do....	12,383,982	12,158,554	197,320	28,108	223,461	285,050	250,535	42,592
Cost of resales.....do....	588,224	575,005	11,175	2,044	15,492	43,501	19,568	3,701
Fuels consumed.....do....	267,291	230,297	35,855	1,139	11,608	7,290	1,890	1,396
Electric energy:								
Purchased:								
Quantity.....million kw.-hrs..	13,416	12,083	1,303	30	232	237	60	36
Cost.....\$1,000..	103,361	94,277	8,652	432	4,527	3,094	1,101	557
Generated less sold.....million kw.-hrs..	3,780	(D)	(D)	-	(D)	(D)	-	-
Contract work.....\$1,000..	24,450	17,698	6,670	82	6,701	71	739	1,324
Value of shipments (including resales), total.....do....	16,496,896	15,991,955	454,747	50,194	427,460	527,632	471,229	71,525
Value of resales.....do....	628,458	614,734	11,055	2,669	17,903	53,755	29,757	5,448
Value added by manufacture, adjusted.....do....	3,137,603	2,918,930	200,251	18,422	165,584	189,981	199,074	20,989
Manufacturers' inventories:								
Beginning of year, total.....do....	1,708,184	1,672,874	29,589	5,721	11,869	41,863	49,092	18,294
Finished products.....do....	1,023,117	1,005,789	13,927	3,401	4,932	22,673	25,375	3,412
Work-in-process.....do....	366,217	362,625	3,226	366	360	1,569	3,429	138
Materials, supplies, fuel, etc.....do....	318,850	304,460	12,436	1,954	6,577	17,621	20,288	14,744
End of year, total.....do....	1,695,549	1,654,384	35,160	6,005	12,108	43,050	52,046	15,267
Finished products.....do....	1,054,403	1,032,884	18,108	3,411	4,719	24,102	27,025	2,418
Work-in-process.....do....	342,966	338,356	4,221	389	486	1,495	3,457	166
Materials, supplies, fuel, etc.....do....	298,180	283,144	12,831	2,205	6,903	17,453	21,564	12,683
Expenditures for plant and equipment, total.....do....	391,177	349,156	36,906	5,115	17,190	7,280	4,920	1,924
New, total.....do....	385,126	343,571	36,771	4,784	15,055	6,954	4,703	1,843
New structures and additions to plant.....do....	275,279	250,231	22,192	2,856	4,965	1,630	1,598	307
New machinery and equipment.....do....	109,847	93,340	14,579	1,928	10,090	5,324	3,105	1,536
Used plant and equipment.....do....	6,051	5,585	135	331	2,135	326	217	81
Selected operating ratios:								
Payroll/Total employment.....do....	7.731	7.742	7.884	6.192	6.412	5.656	6.871	5.992
Production workers/Total employment.....do....	.72	.73	.62	.65	.70	.75	.56	.79
Man-hours/Production workers.....do....	1.935	1.929	2.025	2.189	2.235	2.115	2.080	2.012
Production worker wages/Man-hours.....do....	3.69	3.71	3.59	2.69	2.65	2.49	2.76	2.72
Cost of materials and payrolls/Total value of shipments.....do....	.87	.87	.66	.80	.76	.80	.70	.82
Cost of materials/Total value of shipments.....do....	.81	.82	.57	.63	.61	.64	.58	.69
Adjusted value added/Total employment.....do....	26,301	25,906	37,719	14,009	7,105	13,029	23,607	14,039
Salaries and wages/Adjusted value added.....do....	.29	.30	.21	.44	.37	.43	.29	.43

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>Includes establishments primarily engaged in re-refining or reclaiming used oils by a distillation process; blending or re-refining petroleum waxes, etc.

<sup>2</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>3</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

<sup>4</sup>See footnote 5, table 1.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 2911.—PETROLEUM REFINING											
Establishments.....number..	427	57	35	38	59	44	83	55	30	16	10
All employees:											
Total.....do....	119,297	88	225	515	1,881	3,104	13,941	40,322	(D)	23,245	35,976
Payroll.....\$1,000..	922,319	538	1,374	3,281	13,761	21,769	101,017	314,939	(D)	184,817	280,823
Value added, adjusted.....do....	3,137,603	8,398	3,025	6,543	39,317	64,518	379,574	1,083,759	(D)	845,532	706,937
Value of shipments.....do....	16,496,896	12,136	10,660	30,264	190,670	387,494	2,100,066	6,164,468	(D)	3,735,893	3,865,245
Capital expenditures, new...do....	385,126	13,290	608	1,434	71,655	6,223	55,051	113,869	(D)	67,159	65,837
INDUSTRY 2951.—PAVING MIXTURES AND BLOCKS											
Establishments.....number..	762	246	237	152	94	25	7	1	-	-	-
All employees:											
Total.....do....	9,680	618	1,563	2,067	5,432	(D)	(D)	(D)	-	-	-
Payroll.....\$1,000..	62,065	3,864	10,396	13,100	34,705	(D)	(D)	(D)	-	-	-
Value added, adjusted.....do....	165,584	14,943	34,431	37,895	78,315	(D)	(D)	(D)	-	-	-
Value of shipments.....do....	427,460	45,799	107,783	97,686	176,192	(D)	(D)	(D)	-	-	-
Capital expenditures, new...do....	15,055	1,612	3,856	3,476	6,111	(D)	(D)	(D)	-	-	-
INDUSTRY 2952.—ASPHALT FELTS AND COATINGS											
Establishments.....number..	230	35	24	31	38	58	35	8	1	-	-
All employees:											
Total.....do....	14,581	81	159	415	1,266	4,133	5,040	3,487	(D)	-	-
Payroll.....\$1,000..	82,477	411	736	2,139	6,570	22,698	29,721	20,202	(D)	-	-
Value added, adjusted.....do....	189,981	1,805	2,368	6,126	14,117	48,926	69,572	47,067	(D)	-	-
Value of shipments.....do....	527,632	3,366	6,474	23,290	41,687	148,816	197,681	106,318	(D)	-	-
Capital expenditures, new...do....	6,954	23	300	246	430	2,469	2,361	1,125	(D)	-	-
INDUSTRY 2992.—LUBRICATING OILS AND GREASES											
Establishments.....number..	353	120	68	57	67	26	12	2	-	1	-
All employees:											
Total.....do....	8,433	172	432	842	2,213	1,935	2,839	(D)	-	(D)	-
Payroll.....\$1,000..	57,946	1,197	2,702	5,636	14,944	13,688	19,779	(D)	-	(D)	-
Value added, adjusted.....do....	199,074	5,655	7,280	17,950	67,425	47,578	53,186	(D)	-	(D)	-
Value of shipments.....do....	471,229	13,439	20,942	46,989	141,812	113,647	134,400	(D)	-	(D)	-
Capital expenditures, new...do....	4,703	494	362	363	1,270	1,209	1,005	(D)	-	(D)	-
INDUSTRY 2999.—PETROLEUM AND COAL PRODUCTS, N.E.C.											
Establishments.....number..	67	30	10	10	11	3	2	-	1	-	-
All employees:											
Total.....do....	1,495	57	66	138	1,234	(D)	(D)	-	(D)	-	-
Payroll.....\$1,000..	8,958	247	336	730	7,645	(D)	(D)	-	(D)	-	-
Value added, adjusted.....do....	20,989	565	704	2,881	16,839	(D)	(D)	-	(D)	-	-
Value of shipments.....do....	71,525	1,844	1,777	7,698	60,206	(D)	(D)	-	(D)	-	-
Capital expenditures, new...do....	1,843	46	38	89	3,340	(D)	(D)	-	(D)	-	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

<sup>1</sup>Includes capital expenditures between \$1 million and \$2 million for plants under construction but not in operation.



**TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B+C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
2911	Petroleum refining.....1963..	16,496,896	15,479,138	340,614	677,144	98	<sup>1</sup> 15,983,265	15,479,138	<sup>1</sup> 504,127	<sup>1</sup> 97
	1958..	14,539,055	13,825,227	242,769	471,059	98	<sup>1</sup> 14,133,967	13,825,227	<sup>1</sup> 308,740	<sup>1</sup> 98
2951	Paving mixtures and blocks.....1963..	427,460	358,961	30,528	37,971	92	402,906	358,961	43,945	89
	1958..	267,676	225,766	13,644	28,266	94	265,902	225,766	40,136	85
2952	Asphalt felts and coatings.....1963..	527,632	423,936	47,594	56,102	90	459,482	423,936	35,546	92
	1958..	460,104	376,289	41,903	41,912	90	408,130	376,289	31,841	92
2992	Lubricating oils and greases.....1963..	471,229	399,110	39,738	32,381	91	<sup>2</sup> 1,210,148	399,110	<sup>2</sup> 811,038	<sup>2</sup> 33
	1958..	281,377	223,588	34,908	22,881	86	<sup>2</sup> 882,553	223,588	<sup>2</sup> 658,965	<sup>2</sup> 25
2999	Petroleum and coal products, n.e.c.....1963..	71,525	63,258	2,810	5,457	96	69,257	63,258	5,999	91
	1958..	74,855	64,414	3,061	7,380	95	66,976	64,414	2,562	96

Note: See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.e.c. Not elsewhere classified.

<sup>1</sup>Includes lubricating oils and greases which are also primary to industry 2992, Lubricating Oils and Greases.

<sup>2</sup>Included in the figures shown for this industry are lubricating oils and greases which are also primary to industry 2911, Petroleum Refining. A 1963 coverage ratio computed on the basis of including both industries to which lubricating oils and greases are primary would total 98 percent: 65 percent by industry 2911, and 33 percent by industry 2992. The remaining 2 percent was shipped by establishments in other industries. Computed on the basis of excluding industry 2911, the 1963 coverage ratio is 93 percent for industry 2992.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Petroleum refining (SIC 2911)	Lubricating oils and greases (SIC 2992)	Other industries
PETROLEUM REFINING, AND LUBRICATING OILS AND GREASES INDUSTRY					
	Total shipments and receipts of the industry.....	(X)	16,496,896	471,229	(X)
	Primary products.....	15,983,265	15,479,138	1,399,110	1,105,017
29111	Gasoline and jet fuel.....	8,328,428	8,328,428	-	-
29112	Kerosene.....	656,271	656,271	-	-
29113	Distillate fuel oil.....	2,896,298	3,515,778	-	2,295
29114	Residual fuel oil.....	621,775		-	50,526
29115	Liquefied petroleum gases (made in refineries).....	957,020	906,494	-	25,394
29116	Lubricating oils.....	1,077,359	726,238	325,727	3,412
29926					
29117	Lubricating greases.....	128,622	55,819	69,391	16,644
29927					
29118	Unfinished oils and lubricating oil base stock.....	526,218	520,887	16,571	175
29119	Asphalt.....	360,509	360,279		
29110	Other finished petroleum products including waxes.....	426,598	408,944	3,992	
29920	Other lubricating oils and greases, n.s.k.....	4,167	-		
	Secondary products.....	(X)	340,614	39,738	(X)
28134	Elemental gases and compressed and liquefied gases, n.e.c.....	(X)	2,560	-	-
28151	Cyclic intermediates.....	(X)	41,002	-	-
28181	Miscellaneous cyclic chemical products.....	(X)	(5-10)	(under 2)	(X)
28182	Miscellaneous acyclic chemicals and chemical products.....	(X)	122,805	(under 2)	(X)
28191	Synthetic ammonia, nitric acid and ammonia compounds.....	(X)	23,403	-	(X)
28199	Reagent and high purity grades of inorganic chemicals and other inorganic chemicals, n.e.c.....	(X)	19,792	(under 2)	(X)
28211	Unsupported plastic film, sheets, sheetings, rods, tubes, and other stock shapes made from resins produced in this establishment.....	(X)	(over 2)	-	(X)
28213	Thermoplastic resins and plastics materials.....	(X)	(2-5)	(under 2)	(X)
28214	Thermosetting resins and plastics materials.....	(X)	(2-5)	(under 2)	(X)
28220	Synthetic rubber (vulcanizable elastomers).....	(X)	(over 2)	-	(X)
28430	Surface active and finishing agents.....	(X)	16,675	2,086	(X)
28790	Insecticidal and fungicidal preparations (formulations) primarily for agricultural use.....	(X)	(5-10)	(under 2)	(X)
28993	Essential oils, fireworks, and pyrotechnics, chemicals and chemical preparations, n.e.c.....	(X)	(2-5)	15,229	(X)
	Miscellaneous receipts.....	(X)	677,144	32,381	(X)
99989	Resales.....	(X)	628,458	29,757	(X)
93000	Contract work.....	(X)	18,672	1,942	(X)
	Other miscellaneous receipts.....	(X)	30,014	682	(X)
	Listing of other industries with over \$2 million shipments of each primary product class:				
29110	2844 Toilet preparations.....	(X)	(X)	(X)	(over 2)
29115	2815 Intermediate coal tar products.....	(X)	(X)	(X)	(over 2)
	2818 Organic chemicals, n.e.c.....	(X)	(X)	(X)	42,972
29926	2818 Organic chemicals, n.e.c.....	(X)	(X)	(X)	(X)
	2842 Polishes and sanitation goods.....	(X)	(X)	(X)	(X)
	2899 Chemical preparations, n.e.c.....	(X)	(X)	(X)	(X)

Prod. class code	Class of products and miscellaneous receipts	All industries	Paving mixtures and blocks (SIC 2951)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Paving mixtures and blocks (SIC 2951)	Other industries
PAVING MIXTURES AND BLOCKS INDUSTRY					PAVING MIXTURES AND BLOCKS INDUSTRY—Continued				
	Total shipments and receipts of the industry.....	(X)	427,460	(X)		Miscellaneous receipts.....	(X)	37,971	(X)
	Primary products:					Resales.....	(X)	17,903	(X)
29510	Paving mixtures and blocks.....	402,906	358,961	43,945		Contract work.....	(X)	14,774	(X)
	Secondary products.....	(X)	30,528	(X)		Other miscellaneous receipts.....	(X)	5,294	(X)
14292	Crushed and broken miscellaneous stone.....	(X)	9,305	(X)	29510	Listing of other industries with over \$2 million shipments of primary products:			
14420	Construction sand and gravel.....	(X)	4,834	(X)		1422 Crushed and broken limestone	(X)	(X)	6,988
29522	Asphalt and tar coatings, cements, and pitches.....	(X)	3,045	(X)		1429 Crushed and broken stone, n.e.c.....	(X)	(X)	2,585
32730	Ready-mixed concrete.....	(X)	7,414	(X)		1442 Construction sand and gravel.....	(X)	(X)	3,488
	Other secondary products.....	(X)	5,930	(X)		2952 Asphalt felts and coatings..	(X)	(X)	8,380
						3272 Other concrete products.....	(X)	(X)	2,872
						3273 Ready-mixed concrete.....	(X)	(X)	14,740

See footnotes at end of table.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Asphalt felts and coatings (SIC 2952)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Asphalt felts and coatings (SIC 2952)	Other industries
	ASPHALT FELTS AND COATINGS INDUSTRY					ASPHALT FELTS AND COATINGS INDUSTRY—Continued			
	Total shipments and receipts of the industry.....	(X)	527,632	(X)		Listing of other industries with over \$2 million shipments of each primary product class:			
	Primary products.....	459,482	423,936	35,546	29521	3982 Hand surface floor coverings	(X)	(X)	(2-5)
					29522	2818 Organic chemicals, n.e.c....	(X)	(X)	(2-5)
29521	Asphalt and tar saturated felts and boards for nonbuilding use..	21,086	15,757	5,329		2851 Paints and allied products..	(X)	(X)	5,072
29522	Asphalt and tar coatings, cements, and pitches.....	94,402	76,651	17,751	29523	2951 Paving mixtures and blocks..	(X)	(X)	3,045
29523	Asphalt and tar roofing and siding products.....	338,637	326,171	12,466		2814 Cyclic (coal tar) crudes....	(X)	(X)	(over 2)
29520	Asphalt felts and coatings, n.s.k.....	5,357	5,357	-		3444 Sheet metal work.....	(X)	(X)	2,837
	Secondary products.....	(X)	47,594	(X)			All industries	Petroleum and coal products, n.e.c. (SIC 2999)	Other industries
28140	Cyclic (coal tar) crude.....	(X)	(over 2)	(X)		PETROLEUM AND COAL PRODUCTS, N.E.C., INDUSTRY			
29510	Paving mixtures and blocks.....	(X)	8,380	(X)		Total shipments and receipts of the industry.....	(X)	71,525	(X)
32924	Asbestos-cement shingles and clapboard.....	(X)	(over 2)	(X)		Products of petroleum and coal, n.e.c.....	69,257	63,258	5,999
32927	Asbestos textiles and other asbestos and asbestos cement products.....	(X)	15,112	(X)	29990	Secondary products.....	(X)	2,810	(X)
	Miscellaneous receipts.....	(X)	56,102	(X)		Miscellaneous receipts.....	(X)	5,457	(X)
	Resales.....	(X)	53,755	(X)		Resales.....	(X)	5,448	(X)
	Other miscellaneous receipts.....	(X)	2,347	(X)		Other miscellaneous receipts.....	(X)	9	(X)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Product class codes 29118, 29119, and 29110 are not primary to industry 2992 and are therefore excluded from the total for primary products of industry 2992 and are included in the total for "Other industries."

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Unit of measure	1963				1958			
			Receipts <sup>1</sup> (quantity)	Total shipments including interplant transfers		Net shipments <sup>2</sup> (quantity)	Receipts <sup>1</sup> (quantity)	Total shipments including interplant transfers		Net shipments <sup>2</sup> (quantity)
				Quantity	Value (excluding tax) (\$1,000)			Quantity	Value (excluding tax) (\$1,000)	
2911- -- 2992- --	PETROLEUM PRODUCTS, TOTAL.....	.....	(X)	(X)	15,983,265	(X)	(X)	(X)	14,133,967	(X)
29111 --	Gasoline and jet fuel.....	1,000 bbls.	51,686	1,730,431	8,328,428	1,678,745	38,768	1,525,508	7,825,021	1,486,740
29111 11	Aviation gasoline (except jet- propulsion fuel).....	...do.....	<sup>3</sup> 1,183	94,626	510,044	<sup>3</sup> 184,602	} 437,560	113,724	733,058	} 41,408,949
29111 31	Automotive gasoline.....	...do.....	16,031	1,488,927	7,224,947	1,472,896		1,299,745	6,628,060	
29111 51	Jet-propulsion fuel, excluding kerosene.....	...do.....	( <sup>3</sup> )	91,159	350,965	( <sup>3</sup> )		1,208	78,999	
29111 98	Other finished gasolines, including finished base stocks and blending agents <sup>5</sup> .....	...do.....	34,472	55,719	242,472	21,247	( <sup>4</sup> )	33,040	157,573	( <sup>4</sup> )
29112 --	Kerosene.....	...do.....	3,800	169,640	656,271	165,840	2,156	102,549	411,720	100,393
29112 13	Kerosene jet-propulsion fuel.....	...do.....	} 3,800	75,034	281,522	} 165,840	2,156	102,549	411,720	100,393
29112 19	All other kerosene <sup>6</sup> .....	...do.....		94,606	374,749					
29113 --	Distillate fuel oil.....	...do.....	12,679	799,010	2,896,298	786,331	18,521	661,316	2,490,886	642,795
29113 11	Grade No. 1.....	...do.....	5,201	61,292	249,644	56,091	(X)	57,622	238,175	(X)
29113 31	Grades No. 2-4.....	...do.....	4,921	552,041	1,985,753	547,120	(X)	453,380	1,692,118	(X)
29113 51	Diesel-type fuel oil (light).....	...do.....	979	165,450	589,216	164,471	(X)	132,985	497,449	(X)
29113 98	All other distillate fuel oils, in- cluding light gas-enrichment oil..	...do.....	1,578	20,227	71,685	18,649	(X)	17,329	63,144	(X)
29114 --	Residual fuel oil.....	...do.....	22,326	286,253	621,775	263,927	17,295	350,892	817,184	333,597
29114 11	Grade No. 5, including Navy special	...do.....	} 10,784	27,753	71,094	} 214,168	{	46,940	118,247	(X)
29114 31	Grade No. 6, including Bunker C...	...do.....		188,078	392,636			264,254	592,192	(X)
29114 51	Diesel-type fuel oil (heavy).....	...do.....		79,121	719,925			8,820	24,345	(X)
29114 98	Other residual fuel oils, including heavy gas-enrichment oil.....	...do.....	11,542	61,301	138,120	49,759	(X)	30,568	81,361	(X)
29114 00	Residual fuel oil, n.s.k.....	...do.....	-	( <sup>7</sup> )	( <sup>7</sup> )	-	(X)	310	1,039	(X)
29115 --	Liquefied refinery gases and aromatics, including feed stocks <sup>8 9</sup>	...do.....	51,806	228,641	957,020	177,655	22,363	106,177	560,029	83,814
29115 11	For direct internal-combustion engine use (not included in gas- oline above), excluding acetylene.	...do.....	(X)	( <sup>10</sup> )	( <sup>10</sup> )	(X)	(X)	5,684	10,524	(X)
	Chemical raw material, including synthetic rubber components:									
	Aliphatics: <sup>11</sup>									
29115 51	Ethylene.....	...do.....	(X)	22,228	165,583	(X)	(X)	3,783	41,960	(X)
29115 55	Other aliphatics, including feedstock mixtures.....	...do.....	(X)	45,062	309,919	(X)	(X)	26,098	273,219	(X)
29115 88	Aromatics (including benzene, toluene, xylenes, etc.) <sup>11</sup> .....	...do.....	(X)	33,502	254,144	(X)	(X)	7,962	64,759	(X)
29115 98	Other liquefied gases.....	...do.....	(X)	<sup>10</sup> 127,849	<sup>10</sup> 227,374	(X)	(X)	62,650	169,567	(X)
29118 --	Unfinished oils, and lubricating oil base stock <sup>12</sup> .....	...do.....	106,627	126,057	526,218	19,430	121,508	93,367	440,885	28,141
29118 12	Unfinished oils, including cracking stock, and topped and enriched petroleum <sup>13</sup> .....	...do.....	94,953	101,060	323,716	6,107	96,508	71,396	276,913	25,112
29118 51	Lubricating-oil petroleum base stocks (for blending, compounds, and grease manufacture) <sup>14</sup> .....	...do.....	11,674	24,997	202,502	13,323	25,000	21,971	163,972	3,029
29119 --	Asphalt.....	...do.....	(X)	47,051	360,509	(X)	(X)	(X)	284,629	(X)
29119 11	200 penetration and over (including emulsified asphalt produced at the refinery) <sup>15</sup> .....	...do.....	(D)	33,324	112,122	(D)	(X)	37,586	119,487	(X)
29119 51	Less than 200 penetration <sup>16</sup> .....	1,000 short tons.....	(D)	13,727	248,387	(D)	(X)	8,645	160,847	(X)
29119 00	Asphalt, n.s.k.....	.....	-	-	-	-	(X)	4,295	(X)	(X)

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	1963				1958			
			Receipts (quantity)	Total shipments including interplant transfers		Net shipments (quantity)	Receipts (quantity)	Total shipments including interplant transfers		Net shipments (quantity)
				Quantity	Value (excluding tax) (\$1,000)			Quantity	Value (excluding tax) (\$1,000)	
2911- -- 2992- -- 29110 --	PETROLEUM PRODUCTS—Continued									
29110 --	Other finished petroleum products, including waxes <sup>9</sup> .....		(X)	(X)	17426,598	(X)	(X)	(X)	421,060	(X)
29110 11 29110 21	Petrolatum..... Petroleum coke.....	1,000 bbls. 1,000 short tons.....	514 (S)	2,107 4,873	26,628 52,051	1,593 (S)	18653 (X)	181,930 3,514	22,406 39,735	181,277 (X)
29110 31 29110 41	Road oil <sup>19</sup> ..... Still gas.....	1,000 bbls. Million cubic ft..	(D) (D)	9,334 21,751	27,785 7,840	(D) (D)	(X) (X)	10,371 57,994	29,166 16,101	(X) (X)
29110 51 29110 61 29110 71	Naphtha solvents <sup>20</sup> ..... Microcrystalline wax <sup>21</sup> ..... Refined and semi-refined crystal-line wax.....	1,000 bbls. ..do..... ..do.....	1,831 (D) (D)	20,766 1,468 4,432	124,909 31,942 49,343	18,935 (D) (D)	(X) (X) (X)	20,397 171,036 184,332	135,651 27,500 75,723	(X) (X) (X)
29110 81 29110 98	Crude-scale crystalline wax..... Other finished petroleum products..	..do..... ..do.....	(S) (S)	1,063 (S)	9,369 83,886	(S) (S)	(X) (X)	17761 (X)	10,226 64,552	(X) (X)
29110 00	Products of petroleum refining, n.s.k. <sup>17</sup>		(X)	(X)	1712,845	(X)	(X)	(X)	(X)	(X)
29116 -- 29926 --	Lubricants and similar oils <sup>22</sup> .....		(X)	(X)	1,077,359	(X)	(X)	(X)	772,362	(X)
29116 11	Containing petroleum oils..... Made in petroleum refineries.....	1,000 bbls. ..do.....	(X) 2,393	67,192 53,406	1,060,690 23728,283	(X) 51,013	(X) 2,718	52,946 44,993	748,185 583,345	(X) 42,275
29926 11	Made in lubricating oils and greases industry..... Made in other manufacturing industries.....	..do..... ..do.....	5,742 (X)	12,981 805	310,180 22,227	7,239 (X)	2,146 (X)	7,207 821	157,703 15,652	4,986 (X)
29116 51	Containing animal and vegetable oils only..... Made in petroleum refineries.....	..do..... ..do.....	(X) (X)	428 (X)	14,248 (23)	(X) (X)	(X) (X)	356 (23)	17,007 (23)	(X) (X)
29926 51	Made in lubricating oils and greases industry..... Made in other manufacturing industries.....	..do..... ..do.....	(S) (X)	428	14,248	(S) (X)	114 (X)	225 2356	6,713 231,779	186 (X)
29116 00 29926 00	Lubricants and similar oils, n.s.k. Made in petroleum refineries..... Made in other manufacturing industries.....	..... ..... .....	(X) (X) (X)	(X) (X) (X)	2,421 435 1,986	(X) (X) (X)	(X) (X) (X)	(X) (X) (X)	7,170	(X)
29117 -- 29927 --	Lubricating greases <sup>24</sup> .....		(X)	5,607	128,622	(X)	(X)	(X)	100,347	(X)
29117 11	Containing petroleum oils..... Made in petroleum refineries.....	1,000 bbls. ..do.....	(X) 88	5,280 3,232	122,779 53,942	(X) 3,144	(X) 2533	253,027 252,005	95,277 54,270	(X) 251,972
29927 11	Made in lubricating oils and greases industry..... Made in other manufacturing industries.....	..do..... ..do.....	567 (X)	1,961 87	65,714 3,123	1,394 (X)	(NA) (X)	1,022	41,007	(NA) (X)
29117 51	Containing animal and vegetable oils only..... Made in petroleum refineries.....	..do..... ..do.....	(X) (S)	327 (S)	5,843 1,877	(X) (S)	(X) (NA)	2568	2,702	(X) (NA)
29927 51	Made in lubricating oils and greases industry..... Made in other manufacturing industries.....	..do..... ..do.....	(S) (X)	(S) (X)	253,966	(S) (X)	(NA) (X)	2568	2,702	(NA) (X)
29117 00 29927 00	Lubricating greases, n.s.k.: Made in petroleum refineries..... Made in other manufacturing industries.....	..... ..... .....	- (X) (X)	- (X) (X)	- (26) (26)	- (X) (X)	(X) (X) (X)	(X) (X) (X)	2,368	(X) (X)
29920 00	Lubricating oils and greases, n.s.k.		(X)	(X)	4,167	(X)	(X)	(X)	9,844	(X)
Product			Unit of measure		Total shipments including interplant transfers					
					1963		1958			
					Quantity	Value (\$1,000)	Quantity	Value (\$1,000)		
2951- -- 29510 --	PAVING MIXTURES AND BLOCKS, TOTAL.....					(X)	402,906	(X)	265,902	
29510 11 29510 15	Paving mixtures and blocks: Liquid asphalt and tar paving materials: Emulsified asphalt, including liquid additives <sup>27</sup> ..... Other liquid asphalt and tar paving materials, including cut-backs.....		1,000 bbls.... ..do.....		12,054 7,701	48,577 33,549	6,544 2,528	34,257 14,687		

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
2951- --	PAVING MIXTURES AND BLOCKS—Continued					
29510 --	Paving mixtures and blocks:—Continued					
29510 51	Asphalt and tar paving mixtures and blocks, including bituminous or asphaltic concrete, and asphaltic paving cements.	.....	(X)	294,208	(X)	195,844
29510 98	Other paving mixtures and blocks, except brick, concrete, or stone.....	.....	(X)	8,841	(X)	5,432
29510 00	Paving mixtures and blocks, n.s.k.....	.....	(X)	17,731	(X)	15,682
2952- --	ASPHALT FELTS AND COATINGS, TOTAL.....	.....	(X)	459,482	(X)	408,130
29521 --	Asphalt and tar saturated felts and boards for nonbuilding use....	.....	(X)	21,086	(X)	21,526
29521 11	Felts, for other than building purposes (automotive, etc.)....	Short tons....	118,472	11,431	(S)	10,577
29521 31	Asphalt and tar products, except felts, coatings, cement, for nonbuilding use (i.e., automotive, etc.).....	...do.....	144,533	9,655	(S)	9,966
29521 00	Asphalt and tar saturated felts and boards for nonbuilding use, n.s.k.....	.....	(X)	(X)	(X)	983
29522 --	Asphalt and tar coatings, cements, and pitches.....	.....	(X)	94,402	(X)	67,931
29522 11	Solid asphalt roof cement.....	Short tons....	1,428,768	40,103	852,202	26,087
29522 31	Coal tar roofing pitch.....	...do.....	74,840	4,463	(S)	(28)
29522 51	Roofing coatings: Fibrous.....	...do.....	(S)	30,875	411,507	21,617
29522 55	Nonfibrous.....	...do.....	(S)	14,339	190,669	11,662
29522 00	Asphalt and tar coatings, cements, and pitches, n.s.k.....	.....	(X)	4,622	(X)	288,565
29523 --	Asphalt and tar roofing and siding products.....	.....	(X)	338,637	(X)	313,554
29523 11	Asphalt roofing: Smooth-surfaced roll roofing and cap sheet, including sanded, talc, mica, and other fine material surfacing.....	1,000 sales squares.....	11,494	17,140	10,246	17,752
29523 13	Mineral-surfaced roll roofing and cap sheet (including 17" and 19" selva edge edged).....	...do.....	13,498	29,660	13,148	30,379
29523 14	Strip shingles: Self-sealing.....	...do.....	8,182	48,574	31,047	152,435
29523 16	Standard or regular.....	...do.....	28,036	141,106		
29523 17	Individual shingles, all styles.....	...do.....	4,430	22,668	4,348	19,862
29523 31	Asphalt building sidings: Roll form and shingle form, all patterns.....	...do.....	781	2,052	1,071	2,980
29523 35	Mineral-surfaced insulating board base siding (all types and finishes).....	...do.....	810	11,973	1,504	18,759
29523 51	Building felts: Asphalt saturated felts for roofing and siding.....	Short tons....	933,441	51,292	881,141	53,535
29523 55	Tar saturated felts for roofing and siding.....	...do.....	50,254	3,408	103,597	6,966
29523 98	Other asphalt and tar products: For roofing and siding, including board products and sheathings.....	.....	(S)	7,341	(S)	9,105
29523 00	Asphalt and tar roofing and siding products, n.s.k.....	.....	(X)	3,423	(X)	1,781
29520 00	Asphalt felts and coatings, n.s.k.....	.....	(X)	5,357	(X)	5,119
2999- --	PRODUCTS OF PETROLEUM AND COAL, N.E.C., TOTAL.....	.....	1963		1958	
			Total shipments including interplant transfers		Production for all purposes (quantity)	Total shipments including interplant transfers
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
29990 15	Packaged fuel and fuel briquets (except wood charcoal briquets)...	1,000 tons....	927	18,241	1,331	1,314
29990 98	Other petroleum and coal products, including calcined petroleum coke.....	.....	(X)	49,049	(X)	(X)
29990 00	Products of petroleum and coal, n.e.c., n.s.k.....	.....	(X)	1,967	(X)	(X)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Reporting companies were requested to classify items in the same manner as billed by the shipper regardless of how the refinery (or blending and compounding establishments) would otherwise classify them.

<sup>2</sup>Represents the difference between "Total shipments" (Quantity) and "Receipts" (Quantity).

<sup>3</sup>Product code 2911151 included with code 2911111 for 1963.

<sup>4</sup>Product code 2911198 included with codes 2911111 and 2911131 for 1958.

Footnotes continued on next page.



**TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Footnotes for Table 6A—29A—Continued

<sup>5</sup>Includes all finished gasolines (other than aviation and automotive gasoline), finished base stocks, and blending agents such as alkylate, polymers (dimer, codimer, etc.), hydropolymers (hydrodimer, hydrocodimer, etc.), cumene, isopetane, isohexane, neohexane, isooheptane, iso-octane, motor benzol (benzene), and other blending agents derived from petroleum (excludes natural gasoline).

<sup>6</sup>Includes range oils, signal oil, mineral seal oil, mineral colza oil, longtime burning oil, 300<sup>0</sup> oil, and insecticide base.

<sup>7</sup>Product code 2911400 included with 2911451 for 1963.

<sup>8</sup>Includes ethane, propane, propene, butane, butene, propane-butane mixtures, pentane, butadiene, and other liquefied hydrocarbon gases. Receipts and shipments exclude liquefied petroleum gases from natural gasoline plants.

<sup>9</sup>1963 figures are not directly comparable with those for 1958 because liquefied refinery gases and aromatics for 1963 (formerly defined as liquefied petroleum gases), product class code 29115, include undetermined amounts previously reported as other finished petroleum products, product class code 29110.

<sup>10</sup>Product code 2911511, included in code 2911598 for 1963.

<sup>11</sup>Detailed product statistics for liquefied gases used as chemical raw material are published by the United States Tariff Commission in the report "Synthetic Organic Chemicals, United States Production and Sales."

<sup>12</sup>Although respondents were requested to report receipts in the same manner as billed by the shipper, the figures indicate that items billed as other oils by the shipper were sometimes reported as receipts of "unfinished oils" or "lubricating oil base stock" for the refinery receiving these oils.

<sup>13</sup>Includes such products as cracking stock, unfinished gasoline, requiring further distillation, naphtha stocks, soaps, wax distillate, and other unfinished petroleum oils. Excludes lubricating oil base stocks, natural gasoline and cycle condensates.

<sup>14</sup>Includes light, medium, neutral, heavy neutral, and residual stocks.

<sup>15</sup>Includes flux for paving, roofing, waterproofing, mastic, and other purposes; cut-back asphalt, emulsified asphalt and fluxes made in petroleum refineries, and other liquid asphaltic products except road oil and fuel oil used for heating purposes.

<sup>16</sup>Includes asphalt for paving, roofing, waterproofing, briquetting, mastic, pipe coating, molding composition, and other heavy asphalt products.

<sup>17</sup>Product code 2911000, "Products of petroleum refining, n.s.k.," included in figure for code 29110, "Other finished petroleum products, including waxes."

<sup>18</sup>1958 figure, which was previously published in quantities of thousand pounds, has been converted to thousand barrels on the basis of 280 pounds per barrel.

<sup>19</sup>Represents residual asphaltic oil used for surface treatment of roads and highways.

<sup>20</sup>Includes petroleum ether, rubber solvent, mineral spirits (petroleum spirits), varnish makers' and painters' naphtha, high-solvency naphtha, benzol diluent, lacquer diluent, cleaners' naphtha, stoddard solvent, extraction solvents, and other petroleum distillates shipped as solvents.

<sup>21</sup>Represents amorphous paraffin of melting point not under 145<sup>0</sup>.

<sup>22</sup>Includes oils for lubricating purposes and such nonlubrication purposes as transformer oil, hydraulic oil, processing oil, quenching oil, and liquid rust preventative.

<sup>23</sup>For 1963, lubricants and similar oils containing animal and vegetable oils made in petroleum refineries, product code 2911651, valued at less than \$1 million, are included in lubricants and similar oils containing petroleum oils made in petroleum refineries, code 2911611. The exact figure is withheld to avoid disclosing figures of individual companies. For 1958, code 2911651 is included with code 2992651.

<sup>24</sup>Includes greases for aviation, automotive, industrial, and railroad uses; launching grease, and cutting, drawing, and grinding compounds and paste. Also includes paste rust-preventative compounds and thread compounds. See also footnote 22.

<sup>25</sup>1958 figure, which was previously published in quantities of thousand pounds, has been converted to thousand barrels on the basis of 315 pounds per barrel.

<sup>26</sup>Product code 2992700 included with code 2992751 for 1963.

<sup>27</sup>Excludes data for quantities produced in petroleum refineries, which are included in the statistics for code 2911911, asphalt of 200 penetration and over, in industry 2911, Petroleum Refining.

<sup>28</sup>Product code 2952231 included with code 2952200 for 1958.

TABLE 6B. **Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)		Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value			Production	Unit value
291--	Petroleum refining <sup>1</sup> .....1963.. 1958..	138 115	96 104	295--	Paving and roofing materials.....1963.. 1958..	( <sup>2</sup> ) ( <sup>2</sup> )	( <sup>2</sup> ) ( <sup>2</sup> )
2911-	Petroleum products made in petroleum refineries <sup>1</sup> .....1963.. 1958..	138 115	96 104	2951-	Paving mixtures and blocks.....1963.. 1958..	( <sup>2</sup> ) ( <sup>2</sup> )	( <sup>2</sup> ) ( <sup>2</sup> )
29111	Gasoline and jet fuel.....1963.. 1958..	133 118	96 101	2952-	Asphalt felts and coating.....1963.. 1958..	118 105	102 101
29112	Kerosene.....1963.. 1958..	154 93	98 101	29522	Asphalt and tar coatings, cements and pitches.....1963.. 1958..	170 125	133 130
29113	Distillate fuel oil.....1963.. 1958..	143 118	98 102	29523	Asphalt and tar roofing and siding products.....1963.. 1958..	102 96	100 98
29114	Residual fuel oil.....1963.. 1958..	73 88	108 118				
29115	Liquefied refinery gases and aromatics, including feed stocks.....1963.. 1958..	317 134	77 106	2992-	Lubricating oils and greases.....1963.. 1958..	163 103	124 119
29116	Lubricants and similar oils made in petroleum refineries.....1963.. 1958..	120 101	112 106	29926	Lubricants and similar oils not made in petroleum refineries.....1963.. 1958..	183 108	125 115
29118	Unfinished oils, and lubricating oil base stock.....1963.. 1958..	174 133	103 113	29927	Lubricating greases not made in petroleum refineries.....1963.. 1958..	142 73	112 133
29119	Asphalt.....1963.. 1958..	154 122	106 106				
29110	Other finished petroleum products including waxes.....1963.. 1958..	140 118	95 111	2999-	Products of petroleum and coal, n.e.c.....1963.. 1958..	( <sup>2</sup> ) ( <sup>2</sup> )	( <sup>2</sup> ) ( <sup>2</sup> )

n.e.c. Not elsewhere classified.

<sup>1</sup>Adjusted to include lubricating greases made petroleum refineries (product class 29117).<sup>2</sup>Not shown because comparable quantity data were not obtained for a significant portion of these products.



**TABLE 6C. Product Classes—Value Shipped by All Manufacturing Establishments:  
1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
2911-	Petroleum refining.....	15,557,654	15,218,340	14,890,250	14,774,624	14,497,058	13,889,449	11,666,867	(NA)
29111	Gasoline and jet fuel.....	8,328,428	8,469,402	8,374,999	8,413,110	8,152,180	7,825,021	6,548,701	3,136,709
29112	Kerosene.....	656,271	(485,637)	(451,825)	(471,561)	(433,081)	411,720	434,852	342,997
29113	Distillate fuel oil.....	2,896,298	2,636,432	2,638,346	2,478,056	2,595,986	2,490,886	2,064,298	918,291
29114	Residual fuel oil.....	621,775	(726,861)	(737,895)	(777,635)	(800,150)	817,184	787,783	899,581
29115	Liquefied petroleum gases, (made in re- fineries).....	957,020	751,159	727,995	712,738	683,945	560,029	394,826	118,871
29116	Lubricating oils (made in refineries) (See also code 29926).....	728,718	740,461	675,323	662,532	624,423	583,679	546,051	(NA)
29117	Lubricating greases (made in refineries) (See also code 29927).....	55,819	57,958	55,557	57,540	58,130	54,356	52,966	(NA)
29118	Unfinished oils and lubricating oils base stock.....	526,218	545,572	494,542	468,559	423,298	440,885	294,875	214,666
29119	Asphalt.....	360,509	364,508	335,296	313,619	295,479	284,629	221,681	130,344
29110	Other finished petroleum products, including waxes.....	2426,598	440,350	398,472	419,274	430,386	421,060	320,834	234,904
29510	Paving mixtures and blocks.....	402,906	(353,418)	(321,511)	(318,077)	(273,774)	265,902	120,717	57,066
2952-	Asphalt felts and coatings.....	459,482	460,926	448,097	489,821	445,914	408,130	388,237	333,947
29521	Asphalt and tar saturated felts and boards for nonbuilding use.....	21,086	20,500	20,051	20,104	22,293	21,526	(NA)	(NA)
29522	Asphalt and tar coatings, cements, and pitchess.....	94,402	(82,525)	(S)	(S)	79,939	67,931	41,928	28,100
29523	Asphalt and tar roofing and siding products.	338,637	357,901	346,165	328,325	337,632	313,554	(NA)	(NA)
29520	Asphalt felts and coatings, n.s.k.....	5,357	(S)	(S)	(S)	(S)	5,119	(NA)	(NA)
2992-	Lubricating oils and greases.....	425,611	(287,996)	(275,781)	(296,501)	(278,356)	244,518	198,300	(NA)
29926	Lubricating oils (made from purchased materials) (See also code 29116).....	348,641	(223,548)	(214,690)	(234,472)	(217,412)	188,683	(NA)	(NA)
29927	Lubricating greases (made from purchased materials) (See also code 29117).....	72,803	(52,208)	(52,105)	(53,486)	(52,228)	45,991	47,338	(NA)
29920	Lubricating oils and greases (made from purchased materials), n.s.k.....	4,167	(12,240)	(8,986)	(8,543)	(8,716)	9,884	(NA)	(NA)
29990	Products of petroleum and coal, n.e.c.....	69,257	74,261	(S)	(S)	70,704	66,976	61,241	47,231

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Includes \$12,845 thousand of "products of petroleum refining not specified by kind."

**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
<b>OTHER FINISHED PETROLEUM PRODUCTS, INCLUDING WAXES (29110)</b>			<b>KEROSENE (29112)—Continued</b>			<b>LIQUEFIED REFINERY GASES (MADE IN REFINERIES) (29115)</b>		
United States, total.....	426,598	421,060	South.....	378,726	248,769	United States, total...	957,020	560,029
Northeast.....	84,338	85,535	Louisiana.....	102,761	64,517	Northeast.....	48,748	41,098
New Jersey.....	21,897	28,759	Oklahoma.....	13,352	6,385	Pennsylvania.....	23,274	30,616
Pennsylvania.....	49,497	50,734	Texas.....	239,796	154,292	East North Central.....	70,819	45,767
East North Central.....	58,247	65,915	Mountain.....	2,459	2,865	Ohio.....	16,211	13,615
Ohio.....	11,211	11,725	Pacific.....	100,033	15,065	Illinois.....	17,310	20,776
Indiana.....	15,264	( <sup>2</sup> )	<b>DISTILLATE FUEL OIL (29113)</b>			West North Central.....	8,172	5,173
Illinois.....	23,164	20,861	United States, total...	2,896,298	2,490,886	Kansas.....	6,470	( <sup>2</sup> )
Michigan.....	4,017	7,082	Northeast.....	459,543	434,518	South.....	760,441	410,265
Wisconsin.....	4,591	( <sup>2</sup> )	New Jersey.....	214,190	158,194	Louisiana.....	125,656	66,723
West North Central.....	17,581	16,563	East North Central.....	512,297	462,926	Oklahoma.....	13,021	( <sup>2</sup> )
South Atlantic.....	7,682	5,223	Ohio.....	112,745	103,034	Texas.....	570,919	299,773
East South Central.....	6,181	3,463	Indiana.....	171,458	154,828	Mountain.....	3,342	6,833
West South Central.....	193,888	172,387	Illinois.....	173,211	150,157	Pacific.....	65,502	50,893
Arkansas.....	1,458	2,787	West North Central.....	191,756	167,538	California.....	62,218	( <sup>2</sup> )
Louisiana.....	31,928	27,324	Kansas.....	119,136	102,983		1963 <sup>1</sup>	
Oklahoma.....	35,226	28,738	South Atlantic.....	77,567	67,036	<b>LUBRICATING OILS (MADE IN REFINERIES) (29116)</b>		
Texas.....	125,276	113,538	East South Central.....	57,331	38,073	United States, total...		728,718
Mountain.....	12,023	11,281	Alabama.....	4,077	2,647	Northeast.....		165,971
Wyoming.....	5,881	6,936	West South Central.....	1,212,317	989,126	East North Central.....		91,691
Pacific.....	46,658	60,293	Louisiana.....	239,262	187,880	Illinois.....		25,561
<b>GASOLINE AND JET FUEL (29111)</b>			Texas.....	833,018	670,453	West North Central.....		32,499
United States, total.....	8,328,428	7,825,021	Mountain.....	100,086	95,148	Kansas.....		31,959
Northeast.....	962,945	922,517	Montana.....	24,160	24,968	South.....		349,685
Pennsylvania.....	497,665	500,615	Wyoming.....	28,337	28,400	Arkansas.....		7,124
East North Central.....	1,562,609	1,457,269	Colorado.....	11,807	7,182	Oklahoma.....		46,003
Ohio.....	443,217	450,870	New Mexico.....	5,570	( <sup>2</sup> )	Texas.....		253,694
Indiana.....	392,343	378,786	Utah.....	30,212	( <sup>2</sup> )	West.....		88,872
Illinois.....	583,635	565,410	Pacific.....	285,401	236,521	California.....		85,109
West North Central.....	503,698	462,548	California.....	231,411	212,012	<b>LUBRICATING GREASES (MADE IN REFINERIES) (29117)</b>		
Kansas.....	324,026	289,549	<b>RESIDUAL FUEL OIL (29114)</b>			United States, total...		55,819
South.....	3,679,899	3,508,705	United States, total...	621,775	817,184	Middle Atlantic.....		5,132
Louisiana.....	672,515	709,571	Northeast.....	70,589	138,618	North Central.....		8,115
Oklahoma.....	379,843	397,837	Pennsylvania.....	35,379	83,174	South.....		32,872
Texas.....	2,275,655	2,082,605	East North Central.....	129,320	141,433	Texas.....		125,225
Mountain.....	338,903	( <sup>2</sup> )	Ohio.....	28,320	34,234	West.....		9,700
Montana.....	69,800	61,898	Indiana.....	49,331	48,755	<b>UNFINISHED OILS AND LUBRICATING OIL BASE STOCK (29118)</b>		
Wyoming.....	105,564	91,327	Illinois.....	29,852	32,243	United States, total...	526,218	440,885
Utah.....	90,586	91,249	West North Central.....	14,838	16,561	Northeast.....	71,917	62,245
Pacific.....	1,280,374	( <sup>2</sup> )	Minnesota.....	8,724	8,833	New Jersey.....	40,107	( <sup>2</sup> )
California.....	1,071,866	1,066,363	Kansas.....	3,394	5,978	East North Central.....	28,068	16,598
<b>KEROSENE (29112)</b>			South Atlantic.....	9,349	( <sup>2</sup> )	Illinois.....	19,557	( <sup>2</sup> )
United States, total.....	656,271	411,720	Maryland.....	1,803	1,789	West North Central.....	7,207	9,738
Northeast.....	66,994	48,455	East South Central.....	20,076	( <sup>2</sup> )	South.....	281,466	216,012
New Jersey.....	33,295	15,184	Alabama.....	2,589	1,683	Louisiana.....	70,864	49,585
East North Central.....	101,799	91,409	West South Central.....	152,963	( <sup>2</sup> )	Oklahoma.....	10,260	12,141
Ohio.....	22,062	20,827	Louisiana.....	26,804	39,100	Texas.....	188,791	136,017
Indiana.....	15,290	18,563	Texas.....	116,959	187,852	West.....	137,560	136,292
Illinois.....	55,887	35,180	Mountain.....	19,630	23,109	California.....	118,854	( <sup>2</sup> )
Michigan.....	8,560	( <sup>2</sup> )	Montana.....	2,541	( <sup>2</sup> )			
West North Central.....	6,238	5,157	Wyoming.....	4,458	6,405			
			Colorado.....	4,372	6,470			
			Pacific.....	205,010	229,436			
			California.....	188,085	222,316			

See footnotes at end of table.



TABLE 6D. **Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued**

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		
ASPHALT (29119)			ASPHALT AND TAR COATINGS, CEMENTS, AND PITCHES (29522)—Continued			LUBRICATING OILS (MADE FROM PURCHASED MATERIALS) (29926)—Continued	1963 <sup>1</sup>
United States, total....	360,509	284,629					
Northeast.....	55,933	42,509	South Atlantic.....	8,828	7,323	Middle Atlantic.....	98,309
New Jersey.....	11,241	13,205	Maryland.....	1,287	1,029	New York.....	9,883
East North Central.....	78,015	66,663	East South Central.....	2,302	1,968	New Jersey.....	54,531
Ohio.....	26,368	22,245	West South Central.....	14,636	9,311	Pennsylvania.....	33,895
Indiana.....	16,272	10,816	Louisiana.....	2,528	(Z)	East North Central.....	107,711
Illinois.....	25,552	25,299	Texas.....	11,347	8,112	Ohio.....	29,080
West North Central.....	25,161	18,715	West.....	6,516	4,556	Illinois.....	50,519
South Atlantic.....	38,762	26,564	California.....	4,091	3,325	Michigan.....	15,061
Maryland.....	23,663	11,382	ASPHALT AND TAR ROOFING AND SIDING PRODUCTS (29523)			West North Central.....	48,811
East South Central.....	26,289	16,888	United States, total....	338,637	313,554	Minnesota.....	10,175
West South Central.....	65,512	56,350	New England.....	14,559	14,741	Missouri.....	24,786
Oklahoma.....	11,258	8,151	Middle Atlantic.....	58,571	59,088	South Atlantic.....	19,648
Texas.....	32,097	30,770	New Jersey.....	37,163	36,727	Maryland.....	2,870
Mountain.....	21,002	19,229	East North Central.....	83,736	85,165	East South Central.....	2,866
Montana.....	6,593	6,130	Ohio.....	14,540	13,732	West South Central.....	31,806
Wyoming.....	7,856	7,097	Illinois.....	59,112	60,467	Louisiana.....	25,257
Pacific.....	49,836	37,711	West North Central.....	27,064	22,793	Texas.....	3,671
California.....	40,099	( <sup>2</sup> )	Missouri.....	14,149	11,048	West.....	32,086
ASPHALT AND TAR COATINGS, CEMENTS, AND PITCHES (29522)			South Atlantic.....	38,216	29,949	California.....	27,105
United States, total....	94,402	67,931	Georgia.....	17,792	11,427	LUBRICATING GREASES (MADE FROM PURCHASED MATERIALS) (29927)	
New England.....	2,473	2,066	East South Central.....	17,471	15,651	United States, total...	72,803
Middle Atlantic.....	16,281	14,975	Alabama.....	9,837	10,634	Northeast.....	23,877
New York.....	1,124	1,016	West South Central.....	46,713	38,503	New Jersey.....	7,215
New Jersey.....	8,703	6,070	Arkansas.....	10,635	( <sup>2</sup> )	Pennsylvania.....	10,355
Pennsylvania.....	6,454	7,889	Louisiana.....	14,719	14,492	East North Central.....	16,547
East North Central.....	37,726	23,315	Oklahoma.....	2,295	( <sup>2</sup> )	Ohio.....	7,892
Ohio.....	17,472	11,182	Texas.....	19,064	16,752	Illinois.....	6,358
Indiana.....	2,527	(Z)	West.....	52,307	47,664	Michigan.....	1,443
Illinois.....	15,478	10,096	Oregon.....	8,484	6,103	West North Central.....	17,724
West North Central.....	5,640	4,417	California.....	33,944	36,398	Missouri.....	5,861
Missouri.....	4,161	( <sup>2</sup> )	LUBRICATING OILS (MADE FROM PURCHASED MATERIALS) (29926)			South.....	9,779
			United States, total....		348,641	Pacific.....	4,870
			New England.....		7,404		

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million reported.

<sup>1</sup>For the specified product classes, shipments of \$1 million or more were reported for the States listed, but the exact figures are withheld to avoid disclosure of individual company figures: 29110, Connecticut, Minnesota, Missouri, Kansas, Delaware, Maryland, Virginia, Kentucky, Montana, Colorado, Utah, and California; 29111, Massachusetts, New York, New Jersey, Michigan, Wisconsin, Minnesota, Missouri, North Dakota, Nebraska, Delaware, Maryland, Virginia, West Virginia, South Carolina, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Colorado, New Mexico, Washington, Alaska, and Hawaii; 29112, New York, Pennsylvania, Kansas, Mississippi, Arkansas, Washington, and Hawaii; 29113, Massachusetts, New York, Pennsylvania, Michigan, Wisconsin, Minnesota, Missouri, North Dakota, Delaware, Maryland, Virginia, West Virginia, South Carolina, Kentucky, Tennessee, Arkansas, Oklahoma, Washington, Alaska, and Hawaii; 29114, New York, New Jersey, Michigan, Wisconsin, Missouri, Delaware, Kentucky, Tennessee, Mississippi, Arkansas, Oklahoma, New Mexico, Utah, Washington, and Hawaii; 29115, New York, New Jersey, Indiana, Michigan, Minnesota, Delaware, Maryland, Virginia, West Virginia, Kentucky, Arkansas, Utah, and Washington; 29116, New York, New Jersey, Pennsylvania, Ohio, Indiana, Michigan, West Virginia, Kentucky, Louisiana, and Wyoming; 29117, New York, Pennsylvania, Indiana, Michigan, Louisiana, Oklahoma, and California; 29118, Massachusetts, Rhode Island, Pennsylvania, Ohio, Indiana, Kansas, Maryland, West Virginia, South Carolina, Arkansas, Wyoming, Washington, and Alaska; 29119, Massachusetts, Rhode Island, New York, Pennsylvania, Michigan, Wisconsin, Minnesota, Missouri, Kansas, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Colorado, New Mexico, Utah, Washington, and Oregon; 29522, Massachusetts, Michigan, North Carolina, Georgia, Florida, Tennessee, and Oregon; 29523, Massachusetts, Connecticut, Pennsylvania, Indiana, Michigan, Minnesota, Delaware, Maryland, West Virginia, North Carolina, South Carolina, Florida, Tennessee, Mississippi, Colorado, New Mexico, and Washington; 29926, Indiana, Wisconsin, Nebraska, Kansas, West Virginia, Georgia, Florida, Kentucky, Oklahoma, Washington, and Oregon; 29927, Connecticut, New York, Iowa, Kansas, Louisiana, Oklahoma, Texas, and California.

<sup>2</sup>Shipments of \$1 million or more were reported, but exact figures are withheld to avoid disclosure of individual company figures.

TABLE 6E. Selected Petroleum Products, by Geographic Areas: 1963

Product class and geographic area	Shipments including interplant transfers		Product class and geographic area	Shipments including interplant transfers		Product class and geographic area	Shipments including interplant transfers	
	Quantity (1,000 bbls.)	Value (\$1,000)		Quantity (1,000 bbls.)	Value (\$1,000)		Quantity (1,000 bbls.)	Value (\$1,000)
AVIATION GASOLINE (EXCEPT JET-PROPULSION FUEL) (2911111)			KEROSENE JET-PROPULSION FUEL (2911213)			DISTILLATE FUEL OIL, DIESEL-TYPE FUEL OIL (LIGHT) (2911351)--Con.		
United States, total....	94,626	510,044	United States, total...	75,034	281,522	North Central.....	28,739	108,226
Middle Atlantic.....	1,319	6,869	South.....	44,712	161,331	Ohio.....	5,926	22,808
East North Central.....	23,210	118,180	Louisiana.....	14,476	50,243	Illinois.....	7,065	25,570
South.....	43,272	226,689	Texas.....	26,705	98,800	Kansas.....	5,858	21,982
Louisiana.....	11,455	60,526	West.....	20,025	79,346	South.....	84,673	294,896
Texas.....	15,851	88,727	California.....	15,353	60,697	Arkansas.....	4,373	14,664
Mountain.....	7,321	40,373				Louisiana.....	20,268	69,808
Pacific.....	19,127	115,685	ALL OTHER KEROSENE (2911219)			Oklahoma.....	2,684	9,337
AUTOMOTIVE GASOLINE (2911131)			United States, total...	94,606	374,749	Texas.....	43,199	149,358
United States, total....	1,488,927	7,224,947	South.....	56,587	216,830	West.....	45,980	162,128
Northeast.....	193,050	940,243	Louisiana.....	14,210	52,518	Montana.....	1,854	6,720
Pennsylvania.....	100,405	484,879	Texas.....	36,702	140,996	Wyoming.....	3,336	12,650
East North Central.....	275,405	1,389,705	West.....	5,357	23,168	Colorado.....	2,503	8,922
Illinois.....	91,706	463,491	California.....	4,878	21,235	Utah.....	5,607	20,666
Michigan.....	23,706	126,667				California.....	25,896	88,637
West North Central.....	100,975	473,573	DISTILLATE FUEL OIL, GRADE NO. 1 (2911311)			RESIDUAL FUEL OIL, GRADE NO. 6 (2911431)		
Kansas.....	64,385	309,942	United States, total...	61,292	249,644	United States, total...	188,078	392,636
South.....	664,155	3,062,474	North Central.....	38,903	161,778	Middle Atlantic.....	23,263	55,715
Louisiana.....	124,414	555,941	Indiana.....	11,200	45,773	Pennsylvania.....	12,956	27,144
Oklahoma.....	70,105	321,447	Illinois.....	5,714	23,506	East North Central.....	24,168	67,509
Texas.....	417,915	1,946,871	Kansas.....	9,590	40,369	Ohio.....	5,066	15,136
Mountain.....	51,471	257,531	South.....	10,722	39,922	Indiana.....	7,213	20,872
Montana.....	12,329	58,857	Oklahoma.....	9,360	34,551	Illinois.....	8,556	22,136
Wyoming.....	16,411	85,455	Mountain.....	4,143	16,744	South.....	67,996	132,984
Utah.....	10,427	52,616	Montana.....	1,525	6,132	West South Central.....	62,242	119,628
Pacific.....	203,877	1,101,401	Utah.....	1,406	5,575	Louisiana.....	7,944	16,105
California.....	174,404	938,023	Pacific.....	7,053	29,265	Texas.....	50,742	97,519
JET-PROPULSION FUEL, EXCLUDING KEROSENE (2911151)			California.....	4,966	20,031	Mountain.....	3,990	7,776
United States, total....	91,159	350,965	DISTILLATE FUEL OIL, GRADES NO. 2-4 (2911311)			Pacific.....	64,319	118,332
Middle Atlantic.....	2,863	11,523	United States, total...	552,041	1,985,753	California.....	60,204	109,906
East North Central.....	11,732	46,508	Northeast.....	114,214	428,280	OTHER RESIDUAL FUEL OILS (INCLUDING HEAVY GAS-ENRICHMENT OIL) (2911498)		
Michigan.....	913	3,845	Pennsylvania.....	55,047	204,123	United States, total...	61,301	138,120
West North Central.....	6,813	26,417	East North Central.....	84,477	325,592	Middle Atlantic.....	3,720	9,658
Kansas.....	2,980	11,053	Ohio.....	17,568	67,987	North Central.....	14,701	42,391
South.....	44,286	164,796	Indiana.....	25,183	99,044	South.....	16,792	37,196
Oklahoma.....	8,081	30,427	Illinois.....	32,779	122,962	Texas.....	7,784	17,066
Texas.....	21,808	81,681	West North Central.....	25,611	93,585	Mountain.....	4,360	7,963
West.....	25,465	101,721	Kansas.....	14,841	55,296	Colorado.....	1,046	2,097
Utah.....	1,605	6,342	South.....	288,652	995,232	Pacific.....	21,728	40,912
California.....	16,096	63,137	Louisiana.....	49,910	162,125	ALIPHATICS: ETHYLENE (2911551)		
OTHER FINISHED GASOLINES (INCLUDING BASE STOCKS AND BLENDING AGENTS) (2911198)			Oklahoma.....	21,214	71,963	United States, total...	22,228	165,583
United States, total....	55,719	242,472	Texas.....	192,740	668,799	West South Central.....	19,184	139,649
Middle Atlantic.....	963	4,310	West.....	39,085	143,064	Louisiana.....	6,840	57,275
East North Central.....	1,489	8,216	Wyoming.....	3,145	11,386	Texas.....	12,344	82,374
South.....	49,503	211,950	Colorado.....	552	1,978	OTHER ALIPHATICS, INCLUDING FEED STOCK MIXTURES (2911555)		
Texas.....	38,304	158,376	California.....	24,429	89,498	United States, total...	45,062	309,919
West.....	3,382	16,456	DISTILLATE FUEL OIL, DIESEL-TYPE FUEL OIL (LIGHT) (2911351)			South.....	39,096	268,433
			United States, total...	165,450	589,216	Texas.....	29,778	209,107
			Middle Atlantic.....	6,058	23,969			



TABLE 6E. Selected Petroleum Products, by Geographic Areas: 1963—Continued

Product class and geographic area	Shipments including interplant transfers		Product class and geographic area	Shipments including interplant transfers		Product class and geographic area	Shipments including interplant transfers	
	Quantity (1,000 bbls.)	Value (\$1,000)		Quantity (1,000 bbls.)	Value (\$1,000)		Quantity (1,000 bbls.)	Value (\$1,000)
AROMATICS (INCLUDING BENZENE, TOLUENE, Xylenes, ETC.) (2911588)			UNFINISHED OILS, INCLUDING CRACKING STOCK, AND TOPPED AND ENRICHED PETROLEUM (2911812)			ASPHALT, 200 PENETRATION AND OVER (INCLUDING EMULSIFIED ASPHALT PRODUCED AT THE REFINERY) (2911911)—Continued		
United States, total.....	33,502	254,144	United States, total....	101,060	323,716	South.....	11,834	41,395
Northeast.....	1,746	14,516	Northeast.....	8,566	30,923	Texas.....	4,574	13,106
North Central.....	4,202	21,729	East North Central.....	3,428	12,380	West.....	8,587	28,503
Michigan.....	2,714	10,561	South.....	43,869	157,835	Montana.....	1,782	4,845
South.....	24,410	197,979	Texas.....	36,450	130,885	California.....	4,539	14,777
Texas.....	17,592	152,324	West.....	43,757	118,591	ASPHALT, LESS THAN 200 PENETRATION (2911951)	(1,000 tons)	(\$1,000)
West.....	3,144	19,920	California.....	36,820	99,885	United States, total....	13,727	248,387
California.....	3,144	19,920	LUBRICATING-OIL PETROLEUM BASE STOCKS (FOR BLENDING, COMPOUNDING, AND GREASE MANUFACTURE) (2911851)			Northeast.....	2,472	46,969
OTHER LIQUEFIED GASES (2911511 and 2911598)			United States, total....	24,997	202,502	North Central.....	3,721	69,916
United States, total.....	127,849	227,374	Northeast.....	4,971	40,994	Ohio.....	716	16,598
Middle Atlantic.....	7,948	20,125	East North Central.....	1,697	15,688	Illinois.....	997	16,154
Pennsylvania.....	3,705	9,823	South.....	15,232	123,631	Kansas.....	838	14,589
East North Central.....	13,036	27,029	Texas.....	5,601	57,906	South.....	5,067	89,219
Ohio.....	4,374	11,076	Pacific.....	2,614	18,969	Texas.....	1,160	18,991
Indiana.....	4,260	7,579	California.....	2,614	18,969	West.....	2,467	42,283
Illinois.....	3,422	5,526	ASPHALT, 200 PENETRATION AND OVER (INCLUDING EMULSIFIED ASPHALT PRODUCED AT THE REFINERY) (2911911)			Montana.....	108	1,748
West North Central.....	2,894	5,474	United States, total....	33,324	112,122	California.....	1,579	25,322
Kansas.....	2,050	3,772	Northeast.....	2,612	8,964	NAPHTHA SOLVENTS (2911051)	(1,000 bbls.)	(\$1,000)
South.....	93,831	152,944	North Central.....	10,291	33,260	United States, total....	20,766	124,909
Louisiana.....	6,847	10,224	Ohio.....	2,695	9,770	Middle Atlantic.....	911	5,884
Oklahoma.....	4,359	6,347	Illinois.....	3,482	9,398	North Central.....	3,762	23,083
Texas.....	78,564	127,113	Kansas.....	1,005	3,268	Illinois.....	1,436	9,715
Pacific.....	8,383	18,513				South.....	12,842	72,291
California.....	6,835	15,229				Louisiana.....	1,075	5,670
						Oklahoma.....	1,343	6,519
						Texas.....	9,584	56,058
						West.....	3,251	23,651
						California.....	3,083	22,908

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
	Materials, containers, and supplies, total.....	.....	(X)	12,383,982	(X)	11,584,157
	Crude petroleum (including topped and enriched petroleum).....	1,000 bbls.....	3,156,402	9,743,636	2,795,363	9,180,035
131201	Domestic.....	...do.....	2,742,868	8,487,285	2,440,538	8,068,597
131202	Foreign.....	...do.....	413,534	1,256,351	354,825	1,111,438
132121	Cycle condensate.....	...do.....	17,686	57,506	18,216	55,655
132122	Natural gasoline, mixed and crude, including drip gasoline.....	...do.....	104,463	297,823	102,869	337,160
132123	Liquefied petroleum gases, including feedstocks <sup>1</sup> .....	...do.....	134,436	341,735	33,021	92,466
291152	Benzol (benzene) (100% C <sub>6</sub> H <sub>6</sub> ).....	...do.....	2,655	24,740	683	9,966
	Additives, except animal and vegetable oil:					
280011	Antioxidants, antiknock compounds, and inhibitors.....	...do.....	2,531	283,988	2,168	155,057
280012	Other additives, including soaps and detergents.....	...do.....	1,904	99,102		
209001	Animal and vegetable oils.....	...do.....	100	6,065		
281980	Chemical catalytic preparations.....	.....	(X)	71,416		
941121	Crankcase drainings and other used oils consumed for refining or reclaiming.....	1,000 bbls.....	3,158	8,766	1,980	5,263
281238	Caustic soda (sodium hydroxide 100% NaOH).....	Short tons.....	243,569	14,290	210,199	13,564
281931	Sulfuric acid (100% H <sub>2</sub> SO <sub>4</sub> ) excluding agent.....	...do.....	1,667,262	33,318	421,605	30,014
281946	Hydrofluoric acid (100% HF).....	...do.....	4,943	1,638	7,180	3,073
	Containers:					
340001	Metal.....	.....	(X)	80,913	(X)	100,913
260091	Paper and paperboard.....	.....	(X)	12,310	(X)	16,255
265522	Cans, bodies with combinations of fiber and other materials (foil, plastic, etc.) with metal ends.....	.....	(X)	23,795	(X)	( <sup>2</sup> )
970089	Cost of materials received from petroleum refineries and lube manufacturers (represents cost of materials for which quantities are shown in the "Receipts" column of table 6A).....	.....	(X)	806,944	(X)	( <sup>3</sup> )
970099	All other materials, components, parts, containers, and supplies consumed.....	.....	(X)	462,479	(X)	<sup>2</sup> <sup>3</sup> 1,536,078
973000	Materials, containers, and supplies, n.s.k. <sup>4</sup> .....	.....	(X)	5,942	(X)	48,658
	Materials, containers, and supplies, total.....	.....	(X)	223,461	(X)	130,890
	Asphalt:					
291191	Less than 200 penetration.....	Short tons.....	4,007,018	85,979	2,077,005	44,899
291195	200 and over penetration.....	1,000 bbls.....	3,332	9,584	1,568	4,097
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	89,886	(X)	52,493
973000	Materials, containers, and supplies, n.s.k. <sup>4</sup> .....	.....	(X)	38,012	(X)	29,401
	Materials, containers, and supplies, total.....	.....	(X)	285,050	(X)	261,592
	Asphalt:					
291191	Less than 200 penetration.....	Short tons.....	3,280,779	67,819	2,580,721	52,784
291195	200 and over penetration.....	1,000 bbls.....	8,555	25,867	7,601	26,003
266101	Roofing felts (unsaturated), other construction paper and insulating board.....	Short tons.....	1,283,173	77,360	(X)	150,850
329501	Roofing granules.....	...do.....	1,686,379	43,785		
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	62,642		
973000	Materials, containers, and supplies, n.s.k. <sup>4</sup> .....	.....	(X)	7,577	(X)	31,955
	Materials, containers, and supplies, total.....	.....	(X)	250,535	(X)	159,271
	Additives (except animal and vegetable oil):					
280011	Antioxidants, antiknock compounds, and inhibitors.....	1,000 bbls.....	60	2,562	666	20,032
280012	Other additives, including soap and detergents.....	...do.....	269	19,376		
209001	Animal and vegetable oils.....	...do.....	225	5,772		
941121	Crank case drainings and other used oils consumed for refining or reclaiming.....	...do.....	242	367	163	354
281238	Caustic soda (sodium hydroxide, 100% NaOH).....	Short tons.....	4,581	239	3,535	285

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 2992.—LUBRICATING OILS AND GREASES—Continued			
340001	Containers:					
	Metal.....	.....	(X)	29,940	(X)	18,638
260091	Paper and paperboard.....	.....	(X)	2,376	(X)	1,449
265522	Cans, bodies with combinations of fiber and other materials (foil, plastic, etc.) with metal ends.....	.....	(X)	9,265	}	(X)
970089	Cost of materials received from petroleum refineries and lube manufacturers (represents cost of materials for which quantities are shown in the "Receipts" column of table 6A).....	.....	(X)	110,118		
970099	All other materials, containers, components, parts and supplies consumed.....	.....	(X)	47,497		
973000	Materials, containers and supplies, n.s.k. <sup>4</sup> .....	.....	(X)	23,023		
						17,293

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

<sup>1</sup>Represents liquefied petroleum gases from natural gasoline plants only.

<sup>2</sup>Separate data not collected to code 265522 in 1958. Included in figure for code 970099 for industry 2911.

<sup>3</sup>Data for code 970089, included in figure for code 970099 for 1958 for industry 2911.

<sup>4</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

Item	Petroleum refining (SIC 2911)	Paving mixtures and blocks (SIC 2951)	Asphalt felts and coatings (SIC 2952)	Lubricating oils and greases (SIC 2992)	Petroleum and coal products, n.e.c. (SIC 2999)
Total cost of purchased fuels and electric energy.....\$1,000..	336,916	14,543	9,897	1,666	2,123
Total cost of purchased fuels.....do....	242,997	10,618	6,930	965	1,464
Bituminous coal, lignite, and anthracite:					
Quantity.....1,000 short tons..	789	(S)	93	(S)	17
Cost.....\$1,000..	4,101	(S)	656	(S)	166
Coke and breeze:					
Quantity.....1,000 short tons..	-	(S)	4	-	(S)
Cost.....\$1,000..	-	(S)	72	-	(S)
Fuel oil (distillate and residual):					
Quantity.....1,000 barrels of 42 gallons..	7,334	1,391	878	138	(S)
Cost.....\$1,000..	16,806	5,558	2,493	428	(S)
Gas (natural, manufactured, still, blast furnace, and coke oven):					
Quantity.....million cu.ft..	942,488	6,502	8,432	557	2,556
Cost.....\$1,000..	210,880	3,320	3,120	248	851
Other fuels.....do....	11,210	1,686	589	89	116
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	12,147	192	235	40	38
Cost.....\$1,000..	93,919	3,925	2,967	701	659
Generated less sold.....million kw.-hrs..	4,313	(S)	12	-	-
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	9,385	257	194	47	33
Prime movers, total.....do....	5,999	48	42	9	4
Driving generators.....do....	1,021	13	20	6	1
Not driving generators.....do....	4,978	35	22	3	3
Electric motors, total.....do....	4,569	211	160	38	29
Driven by purchased energy.....do....	3,386	209	152	38	29
Driven by energy generated at establishment.....do....	1,183	2	7	-	-
Aggregate horsepower per 100 production workers.....	10,688	4,159	2,039	1,175	1,326

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: the standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



**TABLE 7C. Selected Materials Consumed by Industries 2911, Petroleum Refining, and 2992, Lubricating Oils and Greases, by Geographic Areas: 1963 and 1958**

Geographic area	1963		1958		Geographic area	1963		1958	
	Quantity	Delivered cost	Quantity	Delivered cost		Quantity	Delivered cost	Quantity	Delivered cost
	(1,000 barrels)	(\$1,000)	(1,000 barrels)	(\$1,000)		(1,000 barrels)	(\$1,000)	(1,000 barrels)	(\$1,000)
CRUDE PETROLEUM (FOREIGN AND DOMESTIC) (CODES 131201 AND 131202)					DOMESTIC CRUDE PETROLEUM (CODE 131201)--Con.				
United States, total.....	3,156,402	9,743,636	2,795,363	9,180,035	West.....	445,947	1,207,730	434,005	1,324,599
Northeast.....	395,449	1,299,475	380,376	1,327,256	Montana.....	(D)	(D)	23,333	65,193
New Jersey.....	(D)	(D)	129,271	452,672	Wyoming.....	39,608	105,336	30,727	92,147
Pennsylvania.....	205,024	666,745	208,761	720,799	Colorado.....	(D)	(D)	10,890	36,103
East North Central..	569,902	1,817,101	503,862	1,707,806	New Mexico.....	(D)	(D)	9,475	28,039
Ohio.....	145,122	497,542	129,170	452,246	Utah.....	29,881	91,059	(D)	(D)
Indiana.....	151,543	471,517	146,871	488,415	California.....	322,897	860,993	320,131	973,131
Illinois.....	216,234	680,002	179,718	598,647	NATURAL GASOLINE, MIXED AND CRUDE, INCLUDING DRIP GASOLINE (CODE 132122)				
West North Central..	178,200	531,376	166,012	529,119	United States, total.....	104,463	297,823	102,869	337,160
Minnesota.....	(D)	(D)	20,392	57,740	East North Central..	8,855	29,009	7,793	24,983
Kansas.....	112,075	345,847	105,169	339,696	Indiana.....	(D)	(D)	3,617	11,210
South Atlantic.....	68,806	204,886	58,888	173,523	West North Central..	4,310	12,552	2,548	8,607
Maryland.....	7,502	19,982	5,398	13,137	Kansas.....	3,630	10,424	(D)	(D)
East South Central..	63,511	192,307	46,553	144,741	East South Central..	(D)	(D)	463	1,310
Alabama.....	5,448	13,646	3,464	8,894	West South Central..	67,060	176,132	69,477	220,357
West South Central..	1,307,922	4,114,448	1,138,164	3,753,251	Oklahoma.....	6,790	20,441	7,134	21,956
Arkansas.....	28,739	78,175	24,461	72,635	Texas.....	56,250	143,072	53,906	169,144
Louisiana.....	280,173	888,721	245,981	826,222	West.....	21,199	70,187	20,597	74,329
Oklahoma.....	134,685	413,098	127,433	406,010	Mountain.....	3,683	11,167	(D)	(D)
Texas.....	864,325	2,734,454	740,289	2,448,384	Montana.....	450	1,490	(D)	(D)
West.....	572,612	1,584,043	501,508	1,544,339	Wyoming.....	717	2,170	1,234	3,298
Mountain.....	121,512	341,833	(D)	(D)	New Mexico.....	882	2,716	731	2,643
Montana.....	28,380	74,709	23,333	65,193	Utah.....	(D)	(D)	392	1,122
Wyoming.....	41,693	111,043	30,727	92,147	Pacific.....	17,516	59,020	(D)	(D)
Colorado.....	12,242	38,718	10,890	36,103	California.....	17,516	59,020	17,846	65,734
New Mexico.....	9,316	26,304	9,475	28,039	LIQUEFIED PETROLEUM GASES, INCLUDING FEED STOCKS <sup>1</sup> (132123)				
Utah.....	29,881	91,059	(D)	(D)	United States, total.....	134,436	341,735	33,021	92,466
Pacific.....	451,100	1,242,210	(D)	(D)	Northeast.....	2,411	7,674	360	1,175
California.....	383,754	1,038,780	368,264	1,129,398	East North Central..	14,552	41,977	4,951	14,145
DOMESTIC CRUDE PETROLEUM (CODE 131201)					Illinois.....	4,142	12,342	2,697	8,784
United States, total.....	2,742,868	8,487,285	2,440,538	8,068,597	West North Central..	5,681	15,702	955	2,687
Northeast.....	198,699	684,288	179,694	677,015	South.....	103,838	250,915	24,312	67,121
Pennsylvania.....	122,465	422,013	100,280	373,314	Louisiana.....	12,099	31,272	8,128	22,079
East North Central..	552,155	1,762,840	499,073	1,693,182	Oklahoma.....	5,692	13,229	2,940	7,464
Ohio.....	138,247	476,178	(D)	(D)	Texas.....	83,086	197,913	12,813	35,981
Indiana.....	(D)	(D)	146,871	488,415	West.....	7,954	25,467	2,443	7,338
Illinois.....	(D)	(D)	179,718	598,647	Mountain.....	2,195	6,166	(D)	(D)
West North Central..	161,081	484,430	134,829	434,662	Wyoming.....	604	1,463	(D)	(D)
South.....	1,384,986	4,347,997	1,192,937	3,939,139	Utah.....	1,326	3,224	(D)	(D)
Arkansas.....	28,739	78,175	24,461	72,635	Pacific.....	5,759	19,301	(D)	(D)
Louisiana.....	280,173	888,721	(D)	(D)	California.....	4,684	15,802	2,001	6,049
Oklahoma.....	134,685	413,098	127,433	406,010					
Texas.....	(D)	(D)	725,346	2,409,797					

See footnotes at end of table.

**TABLE 7C. Selected Materials Consumed by Industries 2911, Petroleum Refining, and 2992, Lubricating Oils and Greases, by Geographic Areas: 1963 and 1958—Continued**

Geographic area	ADDITIVES (EXCEPT ANIMAL AND VEGETABLE OIL) ANTIOXIDANTS, ANTIKNOCK COMPOUNDS, AND INHIBITORS (CODE 280011) 1963		Geographic area	ADDITIVES (EXCEPT ANIMAL AND VEGETABLE OIL) OTHER ADDITIVES, INCLUDING SOAPS AND DETERGENTS (CODE 280012) 1963	
	Quantity (1,000 barrels)	Delivered cost (\$1,000)		Quantity (1,000 barrels)	Delivered cost (\$1,000)
United States, total.....	2,591	286,550	United States, total.....	2,173	118,478
Northeast.....	491	41,326	Northeast.....	624	37,862
New Jersey.....	281	21,622	Pennsylvania.....	280	17,070
Pennsylvania.....	86	16,720			
East North Central.....	453	46,106	East North Central.....	377	24,399
Ohio.....	81	13,297	Ohio.....	101	5,335
Indiana.....	135	9,717	Illinois.....	164	8,036
Illinois.....	172	16,904			
West North Central.....	107	11,025	West North Central.....	262	11,093
Kansas.....	79	7,738			
South.....	1,214	138,034	South.....	739	32,820
Louisiana.....	227	29,653	Arkansas.....	21	1,436
Oklahoma.....	218	13,026	Louisiana.....	85	4,485
Texas.....	689	83,353	Texas.....	523	21,618
Mountain.....	52	7,323	Mountain.....	29	2,169
Wyoming.....	16	2,334			
Colorado.....	8	1,464	Pacific.....	142	10,135
New Mexico.....	12	1,241	California.....	127	9,117
Pacific.....	274	42,736			
California.....	225	36,372			

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>Represents liquefied petroleum gases from natural gasoline plants only.

**TABLE 7D. Fuels Produced and Consumed by Industry 2911, Petroleum Refining: 1963 and 1958**

Industry and year	Petroleum refining	
	Quantity (1,000 bbls.)	Sales value f.o.b. plant (\$1,000)
Residual fuels.....1963..	42,278	75,438
.....1958..	43,147	95,836
Still gas.....1963..	754,154	199,430
.....1958..	671,699	205,780
Other (acid, sludge, etc.) <sup>1</sup> .....1963..	30,640	39,666
.....1958..	17,415	25,021

<sup>1</sup>Although it was intended that respondents include petroleum coke in these figures, a comparison of these data with those collected and published for 1962 (table 8 of 1963 Census of Manufactures Report MC63(1)-7, Fuels and Electric Energy Consumed in Manufacturing Industries: 1962) shows that some companies did not report their production and consumption of petroleum coke for 1963 and 1958.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
2911-	PETROLEUM REFINING										
	Entire industry.....	427	119,297	922,319	85,929	166,409	614,318	3,137,603	13,367,328	16,496,896	385,126
	Establishments with—										
	90% or more specialization..	403	112,911	871,972	81,500	157,353	581,806	2,947,468	12,749,196	15,686,613	368,111
	75-89% specialization.....	8	4,445	35,694	3,112	6,192	23,236	129,922	527,716	660,926	6,895
29111	Gasoline and jet fuel (primary product class of estab.).....	210	104,828	818,299	75,952	146,215	548,053	2,773,647	12,374,339	15,142,412	325,291
	Establishments with—										
	90% or more specialization....	9	383	2,629	307	618	1,858	5,646	19,897	25,671	1,164
	75-89% specialization.....	31	7,270	54,606	5,231	10,431	38,077	187,006	904,061	1,108,859	20,308
29113	Distillate fuel oil (primary product class of estab.).....	9	412	3,092	326	685	2,307	2,291	54,228	58,822	(D)
29114	Residual fuel oil (primary product class of estab.).....	5	175	1,416	114	231	794	3,688	25,957	29,153	68
29115	Liquefied petroleum gases (made in refineries) (primary product class of estab.).....	23	5,611	44,143	3,511	7,128	25,416	212,359	279,095	487,590	35,708
	Establishments with—										
	90% or more specialization....	11	3,093	24,094	1,987	3,854	13,985	103,587	113,587	215,934	11,976
	75-89% specialization.....	3	423	2,933	256	533	1,756	11,735	11,845	23,218	(D)
29116	Lubricating oils made in refineries (primary product class of estab.).....	86	3,026	19,607	2,112	4,414	12,875	62,557	206,187	269,916	5,018
	Establishments with—										
	90% or more specialization....	69	568	3,422	372	845	2,071	13,950	12,084	25,831	1,498
	75-89% specialization.....	3	140	749	116	298	544	1,476	1,734	3,193	382
29118	Unfinished oils and lubricating oil base stock (primary product class of estab.).....	9	1,318	9,710	961	1,880	6,636	13,647	119,425	131,159	(D)
29119	Asphalt (primary product class of estab.).....	31	2,069	14,001	1,510	2,786	9,416	41,702	250,060	292,017	2,608
	Establishments with—										
	75-89% specialization.....	9	624	4,676	477	920	3,342	17,126	49,704	67,050	463
2952-	ASPHALT FELTS AND COATINGS										
	Entire industry.....	230	14,581	82,477	10,894	23,046	57,328	189,981	339,006	527,632	6,954
	Establishments with—										
	90% or more specialization..	183	10,229	56,203	8,054	17,043	40,692	126,498	252,928	378,575	5,004
	75-89% specialization.....	14	1,179	7,758	863	1,931	5,298	15,154	29,843	44,973	661
29521	Asphalt and tar saturated felts and boards for nonbuilding use (primary product class of estab.).....	13	371	2,273	267	574	1,480	4,754	6,882	11,669	192
29522	Asphalt and tar coatings, cements, and pitches (primary product class of estab.).....	78	2,299	12,450	1,123	2,304	5,351	33,233	48,870	81,955	1,305
	Establishments with—										
	90% or more specialization....	43	712	3,935	486	1,026	2,328	11,561	24,133	35,663	607
	75-89% specialization.....	5	128	771	88	168	428	1,763	2,816	4,584	17
29523	Asphalt and tar roofing and siding products (primary product class of estab.).....	113	11,770	67,042	9,402	19,963	50,058	150,666	280,348	429,767	5,399
	Establishments with—										
	90% or more specialization....	89	7,191	39,108	5,676	12,160	28,454	90,736	178,980	268,034	3,453
	75-89% specialization.....	12	1,904	11,194	1,515	3,051	8,539	21,054	48,279	69,993	628
2992-	LUBRICATING OILS AND GREASES										
	Entire industry.....	353	8,433	57,946	4,701	9,778	27,007	199,074	273,833	471,229	4,703
	Establishments with—										
	90% or more specialization..	311	5,442	37,760	3,025	6,556	17,637	138,576	188,220	326,376	3,421
	75-89% specialization.....	21	1,116	7,226	621	1,149	3,509	34,895	51,358	84,978	853
29926	Lubricating oils (made from purchased materials) (primary product class of estab.).....	281	6,536	45,011	3,710	7,766	21,304	169,319	236,832	404,356	3,964
	Establishments with—										
	90% or more specialization....	209	2,812	19,670	1,497	3,394	8,625	77,752	104,787	182,010	1,618
	75-89% specialization.....	42	1,535	10,476	954	1,825	5,672	54,329	78,619	132,389	1,320
29927	Lubricating greases (made from purchased materials) (primary product class of estab.).....	35	1,584	11,030	838	1,645	4,817	27,162	33,928	60,619	619
	Establishments with—										
	90% or more specialization....	20	672	4,347	378	770	2,056	10,193	14,395	24,606	342
	75-89% specialization.....	7	299	2,097	136	263	781	5,222	4,778	9,572	117

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

## Rubber and Plastics Products, N.E.C.

### 30A Rubber and miscellaneous plastics products

This major group includes establishments manufacturing from natural, synthetic, or reclaimed rubber, gutta percha, balata, or gutta siak rubber products such as tires, rubber footwear, mechanical rubber goods, heels and soles, flooring, and rubber sundries. Automobile tire repair shops engaged in recapping and retreading automobile tires are classified in services. Major Group 30 also includes establishments engaged in molding plastics products for the trade and fabricating miscellaneous finished plastics products. The manufacture of elastic webbing is classified in Major Group 22; products made of elastic webbing and garments made from rubberized fabrics in Major Group 23; synthetic rubber in Industry 2822; and plastics materials in the forms of sheets, rods, tubes, granules, powders, and liquids in Industry 2821.



# RUBBER AND PLASTICS PRODUCTS, N.E.C.: MAJOR GROUP 30

Value Added by Manufacture by State: 1963

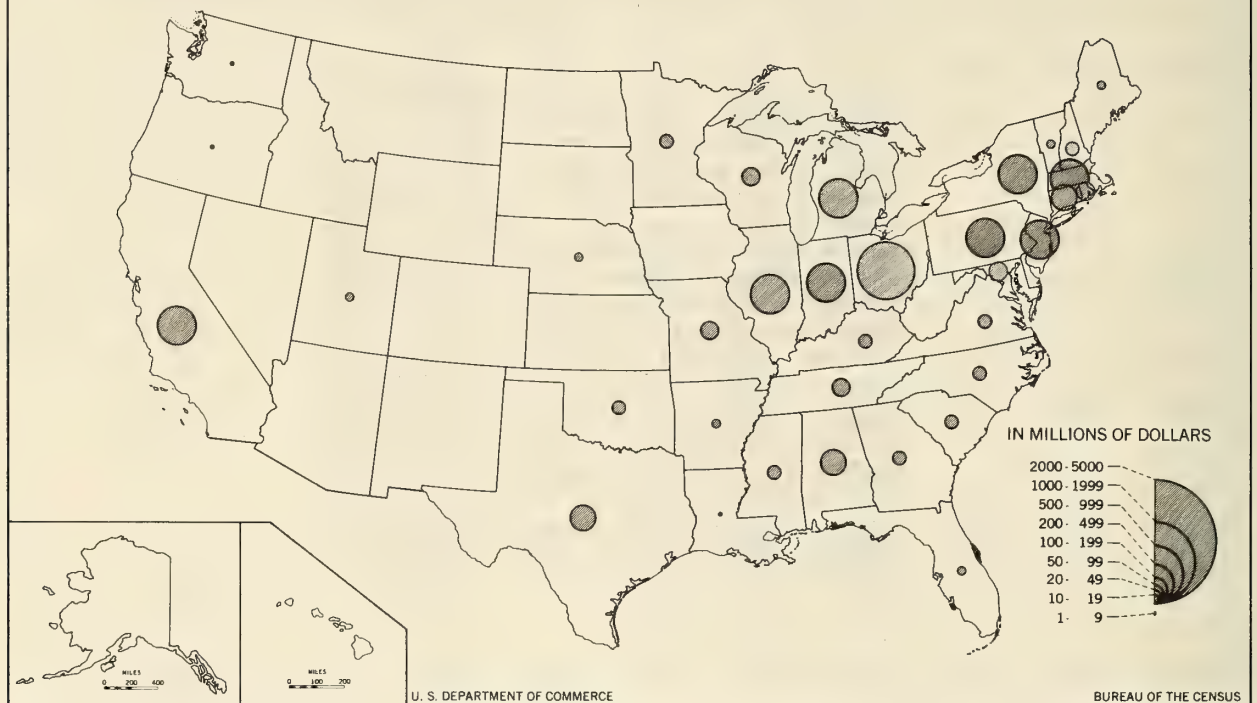


TABLE 1. General Statistics: 1963 and Earlier Years

Year and item	Establishments		All employees <sup>1</sup>		Production workers			Value added by manufacture, adjusted <sup>2</sup>	Cost of materials <sup>3</sup>	Value of shipments <sup>3</sup>	Capital expenditures, new <sup>4</sup>
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)				
ALL MANUFACTURING ESTABLISH- MENTS, TOTAL:											
1963 . . . . .	5 800	2 488	426 716	2 470 772	328 785	658 464	1 672 376	4 653 953	4 480 104	9 116 230	343 466
1958 <sup>5</sup> . . . . .	4 502	1 846	356 109	1 785 542	270 500	530 976	1 211 372	3 276 612	(NA)	6 599 638	197 138
1954 . . . . .	(NA)	(NA)	252 456	1 102 979	196 238	377 414	775 499	1 954 401	(NA)	(NA)	128 431
ADMINISTRATIVE AND AUXILIARY UNITS:											
1963 <sup>5</sup> . . . . .	72	39	11 757	106 739	(x)	(x)	(x)	(x)	(x)	(x)	(x)
1958 <sup>5</sup> . . . . .	40	19	8 267	62 247	(x)	(x)	(x)	(x)	(x)	(x)	(x)
1954 <sup>5</sup> . . . . .	(NA)	(NA)	5 930	43 642	(x)	(x)	(x)	(x)	(x)	(x)	(x)
OPERATING MANUFACTURING ESTABLISHMENTS:											
1963 . . . . .	5 728	2 449	414 959	2 364 033	328 785	658 464	1 672 376	4 653 953	4 480 104	9 116 230	343 466
1958 . . . . .	4 462	1 827	347 842	1 723 295	270 500	530 976	1 211 372	3 276 612	(NA)	6 599 638	197 138
1954 . . . . .	1 406	653	246 526	1 059 337	196 238	377 414	775 499	1 954 401	(NA)	(NA)	128 431
OPERATING MANUFACTURING ESTABLISHMENTS:											
1962 <sup>7</sup> . . . . .	(NA)	(NA)	398 124	2 249 534	313 761	636 719	1 584 496	4 316 098	4 255 769	8 519 359	353 966
1961 <sup>7</sup> . . . . .	(NA)	(NA)	370 648	2 018 852	288 028	576 972	1 401 588	3 915 589	3 827 679	7 742 436	282 686
1960 <sup>7</sup> . . . . .	(NA)	(NA)	378 095	1 998 110	295 897	589 696	1 399 913	3 772 630	(NA)	(NA)	298 717
1959 <sup>7</sup> . . . . .	(NA)	(NA)	379 157	1 968 346	300 137	600 082	1 406 059	3 792 891	(NA)	(NA)	214 382
1957 <sup>7</sup> . . . . .	(NA)	(NA)	259 894	1 309 851	205 342	402 846	953 723	2 462 080	(NA)	(NA)	148 678
1956 <sup>7</sup> . . . . .	(NA)	(NA)	264 969	1 260 324	211 273	414 694	931 053	2 417 713	(NA)	(NA)	152 257
1955 <sup>7</sup> . . . . .	(NA)	(NA)	264 869	1 257 265	213 404	437 308	946 571	2 377 068	(NA)	(NA)	126 716
1953 <sup>7</sup> . . . . .	(NA)	(NA)	269 780	1 140 019	218 853	432 359	866 215	2 021 443	(NA)	(NA)	127 052
1952 <sup>7</sup> . . . . .	730	(NA)	255 079	1 042 166	205 866	408 513	785 548	1 744 141	(NA)	(NA)	126 918
1951 <sup>7</sup> . . . . .	743	(NA)	252 792	962 586	206 600	414 746	734 920	1 729 343	(NA)	(NA)	113 706
1950 <sup>7</sup> . . . . .	838	(NA)	238 671	837 019	196 261	392 414	644 367	1 619 927	(NA)	(NA)	79 958
1949 <sup>7</sup> . . . . .	(NA)	(NA)	222 368	713 385	180 336	342 305	532 471	1 194 668	(NA)	(NA)	63 253
1947 . . . . .	872	(NA)	258 237	781 378	213 823	423 667	613 189	1 299 491	(NA)	(NA)	109 783
1939 . . . . .	595	(NA)	149 738	226 922	120 740	(NA)	161 410	406 155	(NA)	(NA)	(NA)
1937 . . . . .	478	(NA)	149 965	216 327	129 818	(NA)	171 305	368 773	(NA)	(NA)	(NA)
1935 . . . . .	466	(NA)	131 526	169 415	114 681	(NA)	133 715	308 848	(NA)	(NA)	(NA)
1933 . . . . .	408	(NA)	121 157	125 440	106 283	(NA)	99 117	261 347	(NA)	(NA)	(NA)
1931 . . . . .	453	(NA)	(NA)	(NA)	99 259	(NA)	112 596	361 398	(NA)	(NA)	(NA)
1929 . . . . .	525	(NA)	171 982	262 659	149 148	(NA)	207 306	538 782	(NA)	(NA)	(NA)
1927 . . . . .	516	(NA)	168 593	258 733	141 997	(NA)	198 074	564 707	(NA)	(NA)	(NA)
1925 <sup>8</sup> . . . . .	530	(NA)	(NA)	(NA)	141 869	(NA)	191 286	539 075	(NA)	(NA)	(NA)
1923 . . . . .	529	(NA)	160 054	231 047	137 868	(NA)	182 084	457 355	(NA)	(NA)	(NA)
1921 . . . . .	496	(NA)	124 643	170 868	103 273	(NA)	123 613	327 024	(NA)	(NA)	(NA)
1919 . . . . .	477	(NA)	206 104	278 992	158 549	(NA)	193 763	543 872	(NA)	(NA)	(NA)
1914 . . . . .	342	(NA)	88 734	60 446	74 022	(NA)	44 167	137 959	(NA)	(NA)	(NA)
1909 . . . . .	267	(NA)	55 956	32 978	49 264	(NA)	25 137	74 650	(NA)	(NA)	(NA)
1904 . . . . .	265	(NA)	47 571	24 623	43 873	(NA)	20 084	68 013	(NA)	(NA)	(NA)
1899 . . . . .	301	(NA)	39 071	18 576	36 566	(NA)	15 427	39 640	(NA)	(NA)	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The figures for 1939 to 1963 include data for employees at manufacturing establishments who were engaged in distribution and in construction work. The extent to which data for such employees were included in the figures for earlier years is not known.

<sup>2</sup>For the period 1954 to 1963, figures represent adjusted value added by manufacture and for earlier years, unadjusted value added. Adjusted value added is equal to value of shipments (including resales of finished products) less cost of finished products, materials, supplies, fuel, electric energy and contract work, plus the net change in the value of finished products and work-in-process inventories between the beginning and end of the year, without adjustment for price changes. Unadjusted value added is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. For 1899 to 1933, cost of contract work was not subtracted from value of products in calculating value added by manufacture.

<sup>3</sup>The total value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry classification. For a more complete explanation, see Introduction.

<sup>4</sup>The figures for 1958 to 1963 include expenditures for plants under construction and

not yet in operation.

<sup>5</sup>Based upon the 1957 revisions of the Standard Industrial Classification Manual, establishments engaged in molding plastics products for the trade and fabricating miscellaneous finished plastics products were reclassified from Major Group 39, Miscellaneous manufacturing industries to Major Group 30. Data for years prior to 1958 exclude data for plastic products.

<sup>6</sup>In addition to data for operating establishments 1954, 1958, and 1963 figures are shown for manufacturer's central administrative offices and auxiliary units. Similar data are shown for the years 1949 to 1953 and 1955 to 1957 in annual survey of manufactures volumes. Data for these units are not available for the years prior to 1949.

<sup>7</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates consequently, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>8</sup>The figures for 1925 to 1963, but not for earlier years, include data for establishments primarily engaged in manufacture of rubber cement and rubber toy ballons. Value added by manufacture for 1925, excluding data for these establishments and on a basis comparable with earlier years, was \$536.6 million.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
		Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
30	RUBBER & PLASTICS PRODUCTS, NEC, TOTAL	5 728	2 449	414 959	2 364 033	328 785	658 464	1 672 376	4 653 953	343 466	347 842	3 276 612
	NORTHEAST . . . . .	2 198	981	144 382	761 110	116 070	229 925	537 605	1 432 825	89 775	129 394	1 109 051
	NEW ENGLAND . . . . .	645	340	64 878	340 165	52 047	101 794	239 036	623 522	32 356	61 388	519 965
	MAINE . . . . .	24	12	1 958	7 467	1 689	3 322	5 339	12 275	583	1 146	8 434
	NEW HAMPSHIRE . . . . .	26	17	3 301	13 553	2 840	5 327	9 815	20 842	1 623	(D)	(D)
	VERMONT . . . . .	12	6	1 161	5 714	950	1 851	4 175	11 509	1 029	(D)	(D)
	MASSACHUSETTS . . . . .	365	195	33 596	179 593	26 613	52 066	122 712	324 987	14 985	34 679	281 894
	RHODE ISLAND . . . . .	76	37	7 926	38 291	6 593	12 834	28 606	83 263	3 537	7 589	70 697
	CONNECTICUT . . . . .	142	73	16 936	95 547	13 362	26 394	68 389	170 646	10 599	15 617	141 757
	MIDDLE ATLANTIC . . . . .	1 553	641	79 504	420 945	64 023	128 131	298 569	809 303	57 419	68 006	589 086
	NEW YORK . . . . .	759	271	28 206	135 549	23 177	45 518	95 385	256 842	17 051	25 401	193 518
	NEW JERSEY . . . . .	492	233	27 976	153 470	22 010	44 851	106 200	284 064	24 278	22 537	191 748
	PENNSYLVANIA . . . . .	302	137	23 322	131 926	18 836	37 762	96 984	268 397	16 090	20 068	203 820
	NORTH CENTRAL . . . . .	1 861	869	175 902	1 081 023	137 220	276 385	759 615	2 060 505	160 856	149 476	1 397 032
	EAST NORTH CENTRAL . . . . .	1 542	750	157 392	971 825	122 429	246 273	678 340	1 824 051	147 622	137 387	1 256 791
	OHIO . . . . .	479	273	80 471	535 795	61 026	122 887	369 086	968 715	65 205	76 627	710 124
	INDIANA . . . . .	169	84	22 434	124 692	18 213	36 571	93 486	243 155	13 073	17 357	142 432
	ILLINOIS . . . . .	467	220	28 489	157 980	22 485	45 377	106 189	308 077	51 354	22 143	185 240
	MICHIGAN . . . . .	296	118	19 005	114 533	15 037	30 143	81 358	232 808	15 107	14 113	146 565
	WISCONSIN . . . . .	131	55	6 993	38 825	5 668	11 295	28 221	71 296	2 883	7 147	72 430
	WEST NORTH CENTRAL . . . . .	319	119	18 510	109 198	14 791	30 112	81 275	236 454	13 234	12 089	140 241
	MINNESOTA . . . . .	116	31	3 496	18 519	2 721	5 553	12 405	37 195	2 590	2 106	15 071
	IOWA . . . . .	36	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	MISSOURI . . . . .	118	55	5 444	26 560	4 242	8 523	18 595	53 484	2 657	2 828	23 001
	SOUTH DAKOTA . . . . .	3	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	NEBRASKA . . . . .	16	8	1 450	8 380	1 182	2 509	6 452	15 575	1 245	1 146	9 799
	KANSAS . . . . .	30	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	SOUTH . . . . .	727	300	57 815	304 780	47 582	97 341	229 791	718 837	49 278	38 526	438 631
	SOUTH ATLANTIC . . . . .	376	151	28 090	133 528	22 794	46 189	95 083	266 816	25 567	17 898	146 371
	DELAWARE . . . . .	14	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2 016	15 233
	MARYLAND . . . . .	50	33	10 592	53 668	8 717	17 707	39 386	87 873	12 667	8 392	74 000
	DISTRICT OF COLUMBIA . . . . .	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	VIRGINIA . . . . .	32	18	4 671	19 470	3 860	7 712	13 887	40 705	3 029	2 505	15 594
	WEST VIRGINIA . . . . .	8	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	NORTH CAROLINA . . . . .	59	25	3 461	14 972	2 756	5 558	10 640	33 917	1 296	1 900	18 078
	SOUTH CAROLINA . . . . .	20	11	2 160	11 259	1 577	3 290	6 874	34 759	1 712	953	8 506
	GEORGIA . . . . .	66	30	2 516	9 808	2 147	4 496	6 987	26 769	2 631	1 061	8 755
	FLORIDA . . . . .	125	23	1 456	5 999	1 189	2 335	4 236	12 343	1 003	711	3 687
	EAST SOUTH CENTRAL . . . . .	120	72	18 723	110 477	15 695	32 241	87 864	282 387	14 673	13 116	183 854
	KENTUCKY . . . . .	22	12	2 069	9 656	1 675	3 455	7 039	33 534	1 735	(D)	(D)
	TENNESSEE . . . . .	54	36	7 604	44 948	6 422	12 961	35 876	82 971	4 792	5 032	66 562
	ALABAMA . . . . .	25	12	6 535	42 691	5 538	11 497	34 766	133 625	6 414	5 799	96 790
	MISSISSIPPI . . . . .	19	12	2 515	13 182	2 060	4 328	10 183	32 257	1 732	(D)	(D)
	WEST SOUTH CENTRAL . . . . .	231	77	11 002	60 775	9 093	18 911	46 844	169 634	9 038	7 512	108 406
	ARKANSAS . . . . .	24	12	1 585	7 253	1 342	2 774	5 679	18 757	1 709	(D)	(D)
	LOUISIANA . . . . .	13	4	1 899	730	156	309	510	3 168	194	133	1 580
	OKLAHOMA . . . . .	28	11	2 471	16 379	2 113	4 537	13 674	47 370	2 896	(D)	(D)
	TEXAS . . . . .	166	50	6 757	36 413	5 482	11 291	26 981	100 339	4 239	4 646	62 379
	WEST . . . . .	942	300	36 977	217 483	28 002	54 999	145 621	444 936	43 550	30 446	331 898
	MOUNTAIN . . . . .	80	17	6 753	41 868	4 627	8 655	25 108	99 610	5 505	(D)	(D)
	MONTANA . . . . .	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	IDAHO . . . . .	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	WYOMING . . . . .	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	COLORADO . . . . .	34	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	NEW MEXICO . . . . .	3	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	ARIZONA . . . . .	25	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	UTAH . . . . .	13	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	PACIFIC . . . . .	862	283	30 224	175 615	23 375	46 344	120 513	345 326	38 045	(D)	(D)
	WASHINGTON . . . . .	49	8	490	2 794	375	732	1 884	5 415	475	(D)	(D)
	OREGON . . . . .	35	6	409	2 433	308	603	1 505	4 696	236	(D)	(D)
	CALIFORNIA . . . . .	769	269	29 275	170 168	22 650	44 927	116 956	334 626	37 268	23 810	248 361
	ALASKA . . . . .	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	HAWAII . . . . .	8	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
301	TIRES AND INNER TUBES, TOTAL <sup>1</sup> . . . . .	155	96	85 259	621 741	66 268	131 783	460 145	1 321 712	112 783	89 395	1 179 957
302	RUBBER FOOTWEAR, TOTAL <sup>1</sup> . . . . .	53	46	29 147	130 361	25 951	48 168	105 763	216 959	6 903	20 359	149 608
303	RECLAIMED RUBBER, TOTAL <sup>1</sup> . . . . .	13	13	2 010	13 598	1 658	3 145	10 413	27 378	1 309	2 215	20 843
306	RUBBER PRODUCTS, NEC, TOTAL <sup>1</sup> . . . . .	1 173	620	132 228	760 761	100 581	203 392	516 065	1 427 022	64 955	119 565	997 254
307	PLASTICS PRODUCTS, NEC, TOTAL <sup>1</sup> . . . . .	4 334	1 674	166 315	837 572	134 327	271 976	579 990	1 660 882	157 516	116 308	928 950

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>This industry group consists of a single 4-digit industry. Detailed data by State are included in the 4-digit industry tables.

TABLE 3. Detailed Statistics: 1963

Item	Rubber and plastics products, n.e.c. (SIC 30)	Tires and inner tubes (SIC 301)	Rubber footwear (SIC 302)	Reclaimed rubber (SIC 303)	Rubber products, n.e.c. (SIC 306)	Plastics products, n.e.c. (SIC 307)
ESTABLISHMENTS, TOTAL . . . . . NUMBER . .	5 728	155	53	13	1 173	4 334
WITH 1 TO 19 EMPLOYEES . . . . . DO. .	3 279	59	7	-	553	2 660
WITH 20 TO 99 EMPLOYEES . . . . . DO. .	1 695	35	8	6	369	1 277
WITH 100 EMPLOYEES OR MORE . . . . . DO. .	754	61	38	7	251	397
PROPRIETORS AND WORKING PARTNERS . . . . . DO. .	1 651	37	4	2	300	1 308
ALL EMPLOYEES (AVERAGE FOR THE YEAR) . . . . . DO. .	414 959	85 259	29 147	2 010	132 228	166 315
PAYROLL (ALL EMPLOYEES), TOTAL FOR YEAR . . . . . \$1,000. .	2 364 033	621 741	130 361	13 598	760 761	837 572
PRODUCTION WORKERS:						
AVERAGE FOR THE YEAR . . . . . NUMBER . .	328 785	66 268	25 951	1 658	100 581	134 327
MARCH . . . . . DO. .	323 388	68 381	23 657	1 667	100 635	129 048
MAY . . . . . DO. .	328 667	66 972	27 314	1 674	100 914	131 793
AUGUST . . . . . DO. .	329 729	64 695	26 494	1 666	99 913	136 961
NOVEMBER . . . . . DO. .	333 356	65 024	26 339	1 625	100 862	139 506
MAN-HOURS . . . . . \$1,000. .	658 464	131 783	48 168	3 145	203 392	271 976
JANUARY-MARCH . . . . . DO. .	164 278	34 876	12 671	803	51 325	64 605
APRIL-JUNE . . . . . DO. .	166 217	34 018	12 676	803	51 273	67 447
JULY-SEPTEMBER . . . . . DO. .	158 937	30 286	10 687	760	48 488	68 716
OCTOBER-DECEMBER . . . . . DO. .	169 032	32 603	12 134	779	52 308	71 208
WAGES . . . . . \$1,000. .	1 672 376	460 145	105 763	10 413	516 065	579 990
COST OF MATERIALS, ETC., TOTAL <sup>1</sup> . . . . . DO. .	<sup>14</sup> 480 104	1 623 090	141 115	21 669	1 171 331	1 522 899
MATERIALS, PARTS, CONTAINERS, AND SUPPLIES CONSUMED . . . . . DO. .	3 844 319	1 324 820	113 771	17 190	1 008 067	1 380 471
COST OF REALES . . . . . DO. .	462 615	263 603	22 727	1 804	117 868	56 613
FUELS CONSUMED . . . . . DO. .	44 858	13 979	981	552	16 108	13 238
ELECTRIC ENERGY:						
PURCHASED:						
QUANTITY . . . . . MILLION KW.-HRS. .	6 805	1 949	230	242	1 833	2 551
COST . . . . . \$1,000. .	83 474	20 097	2 587	2 103	22 657	36 030
GENERATED LESS SOLD . . . . . MILLION KW.-HRS. .	1 162	745	(D)	-	(D)	13
CONTRACT WORK . . . . . \$1,000. .	44 838	591	1 049	20	6 631	36 547
VALUE OF SHIPMENTS (INCLUDING REALES), TOTAL <sup>1</sup> . . . . . DO. .	<sup>19</sup> 116 230	2 949 673	354 239	48 879	2 597 999	3 165 440
VALUE OF REALES . . . . . DO. .	584 329	(D)	25 050	(D)	152 300	68 599
VALUE ADDED BY MANUFACTURE, ADJUSTED . . . . . DO. .	4 653 953	1 321 712	216 959	27 378	1 427 022	1 660 882
MANUFACTURERS' INVENTORIES:						
BEGINNING OF YEAR, TOTAL . . . . . DO. .	1 159 641	411 351	82 969	5 232	325 907	334 182
FINISHED PRODUCTS . . . . . DO. .	613 572	260 563	61 975	2 422	148 319	140 293
WORK-IN-PROCESS . . . . . DO. .	186 790	47 892	6 412	259	70 567	61 660
MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO. .	359 279	102 896	14 582	2 551	107 021	132 229
END OF YEAR, TOTAL . . . . . DO. .	1 189 924	413 217	86 390	5 823	323 446	361 048
FINISHED PRODUCTS . . . . . DO. .	625 088	255 291	65 074	2 514	148 782	153 427
WORK-IN-PROCESS . . . . . DO. .	193 101	48 293	7 148	335	70 458	66 867
MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO. .	371 735	109 633	14 168	2 974	104 206	140 754
EXPENDITURES FOR PLANT AND EQUIPMENT, TOTAL . . . . . DO. .	359 586	113 759	7 189	1 314	68 343	168 981
NEW, TOTAL . . . . . DO. .	343 466	112 783	6 903	1 309	64 955	157 516
NEW STRUCTURES AND ADDITIONS TO PLANT . . . . . DO. .	58 564	14 640	822	53	12 752	30 297
NEW MACHINERY AND EQUIPMENT . . . . . DO. .	284 902	98 143	6 081	1 256	52 203	127 219
USED PLANT AND EQUIPMENT . . . . . DO. .	16 120	976	286	5	3 388	11 465
SELECTED OPERATING RATIOS:						
PAYROLL/TOTAL EMPLOYMENT . . . . .	5 697	7 292	4 473	6 765	5 753	5 036
PRODUCTION WORKERS/TOTAL EMPLOYMENT . . . . .	.79	.78	.89	.82	.76	.81
MAN-HOURS/PRODUCTION WORKERS . . . . .	2 003	1 989	1 856	1 897	2 022	2 025
PRODUCTION WORKER WAGES/MAN-HOURS . . . . .	2.54	3.49	2.20	3.31	2.54	2.13
COST OF MATERIALS AND PAYROLLS/TOTAL VALUE OF SHIPMENTS . . . . .	.75	.76	.77	.72	.74	.75
COST OF MATERIALS/TOTAL VALUE OF SHIPMENTS . . . . .	.49	.55	.40	.44	.45	.48
ADJUSTED VALUE ADDED/TOTAL EMPLOYMENT . . . . .	11 215	15 502	7 444	13 621	10 792	9 986
SALARIES AND WAGES/ADJUSTED VALUE ADDED . . . . .	.51	.47	.60	.50	.53	.50

Standard Notes: - Represents zero.

(D) Withheld to avoid disclosing figures for individual companies.

(NA) Not available.

(X) Not applicable.

<sup>1</sup>The value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry. For a more complete explanation, see Introduction.





## RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3011—Tires and Inner Tubes
- 3021—Rubber Footwear
- 3031—Reclaimed Rubber
- 3069—Fabricated Rubber Products, Not Elsewhere Classified
- 3079—Miscellaneous Plastics Products

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3011—TIRES AND INNER TUBES

This industry comprises establishments primarily engaged in the manufacture of pneumatic casings, inner tubes, and solid and cushion tires for all types of vehicles, airplanes, farm equipment, and children's vehicles, as well as tire repair and tire retreading (camelback) materials. For a detailed list of products of industry 3011, refer to table 6A, product codes 3011111 to 3011539.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Tires and Inner Tubes Industry totaled \$2,950 million. This amount included shipments of tires and inner tubes (primary products) valued at \$2,399 million, and shipments of other products (secondary products) and miscellaneous receipts (mainly resales) valued at \$551 million.

Shipments of tires and inner tubes by this industry represented 99 percent of all shipments of these products (\$2,420 million) by all industries. In 1958 the coverage ratio was also 99 percent. Other industries shipping tires and inner tubes consisted mainly of industry 3069, Rubber Products, N.E.C.; and industry 3949, Sporting and Athletic Goods.

The production index for the primary products of the industry increased to 145 in 1963 from the 1958 level of 110. The unit value index for 1963 was 96 compared to 113 in 1958. Both indexes were computed on a basis of 1954 = 100.



### 3021—RUBBER FOOTWEAR

This industry comprises establishments primarily engaged in the manufacture of all rubber footwear, waterproof fabric upper footwear, and other fabric upper footwear having rubber soles vulcanized to the uppers. For a detailed list of products of industry 3021, refer to table 6A, product codes 3021011 to 3021098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Rubber Footwear Industry totaled \$354 million. This amount included shipments of rubber footwear (primary products) valued at \$305 million, shipments of other products (secondary products) valued at \$23 million, and miscellaneous receipts (mainly resales) at \$26 million.

This industry's shipments of rubber footwear represented 93 percent of its total product shipments. Secondary products shipped by this industry in 1963 consisted mainly of rubber products, n.e.c. (\$9 million), and boot and shoe cut stock and findings.

Shipments of rubber footwear by this industry represented 90 percent of all shipments of these products (\$340 million) by all industries. Other industries shipping rubber footwear consisted mainly of industry 3142, House Slippers.

The production index for the primary products of the industry increased to 203 in 1963 from the 1958 level of 127. The unit value index for 1963 was 101 compared to 103 in 1958. Both indexes were computed on a basis of 1954 = 100.

### 3031—RECLAIMED RUBBER

This industry comprises establishments primarily engaged in reclaiming rubber from used tires, scrap, and miscellaneous waste rubber articles by processes which result in a devulcanized, depolymerized, or regenerated, replasticized product containing added ingredients. This product is sold for use as a raw material in the manufacture of rubber goods with or without a mixture with natural or synthetic rubber.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Reclaimed Rubber Industry totaled \$49 million. This amount included shipments of reclaimed rubber (primary products) valued at \$43 million, and shipments of other products (secondary products) and miscellaneous receipts valued at \$6 million.

Secondary products shipped by this industry in 1963 consisted mainly of rubber products, n.e.c.

Shipments of reclaimed rubber by this industry represented 77 percent of all shipments of these products (\$55 million) by all industries. In 1958 the coverage ratio was 72 percent. Other industries shipping reclaimed rubber consisted mainly of industry 2818, Organic Chemicals, N.E.C., and industry 3011, Tires and Inner Tubes.

The production index for the primary products of the industry increased to 107 in 1963 from the 1958 level of 100. The unit value index for 1963 was 117 compared to 107 in 1958. Both indexes were computed on a basis of 1954 = 100.

### 3069—FABRICATED RUBBER PRODUCTS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in the manufacture of industrial and mechanical rubber goods, rubberized fabrics and vulcanized rubber clothing, and miscellaneous rubber specialties and sundries. For a detailed list of products of industry 3069, refer to table 6A, product codes 3069000 to 3069898.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Rubber Products, N.E.C., Industry totaled \$2,598 million. This amount included shipments of rubber products, n.e.c., (primary products) valued at \$2,085 million, shipments of other products (secondary products) valued at \$343 million, and miscellaneous receipts (mainly resales) at \$170 million.

This industry's shipments of rubber products, n.e.c., represented 86 percent of its total product shipments. The industry specialization ratio in 1958 was also 86 percent. Secondary products shipped by this industry in 1963 consisted mainly of consumer and commercial plastics products, n.e.c. (\$29 million), foamed plastics products (\$28 million), and rubber footwear.

Shipments of rubber products, n.e.c., by this industry represented 89 percent of all shipments of these products (\$2,356 million) by all industries. In 1958 the coverage ratio was 86 percent. Other industries shipping rubber products, n.e.c., consisted mainly of industry 3011, Tires and Inner Tubes, \$115 million; and industry 3079, Plastics Products, N.E.C., \$25 million.

The production index for the primary products of the industry increased to 143 in 1963 from the 1958 level of 106. The unit value index for 1963 was 102 compared to 104 in 1958. Both indexes were computed on a basis of 1954 = 100.

### 3079—MISCELLANEOUS PLASTICS PRODUCTS

This industry comprises establishments primarily engaged in molding primary plastics for the trade, in manufacturing film, sheets, sheeting, rods, tubes, and other stock shapes from purchased resins, and in fabricating miscellaneous finished plastics products. For a detailed list of products of industry 3079, refer to table 6A, product codes 3079000 to 3079898.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

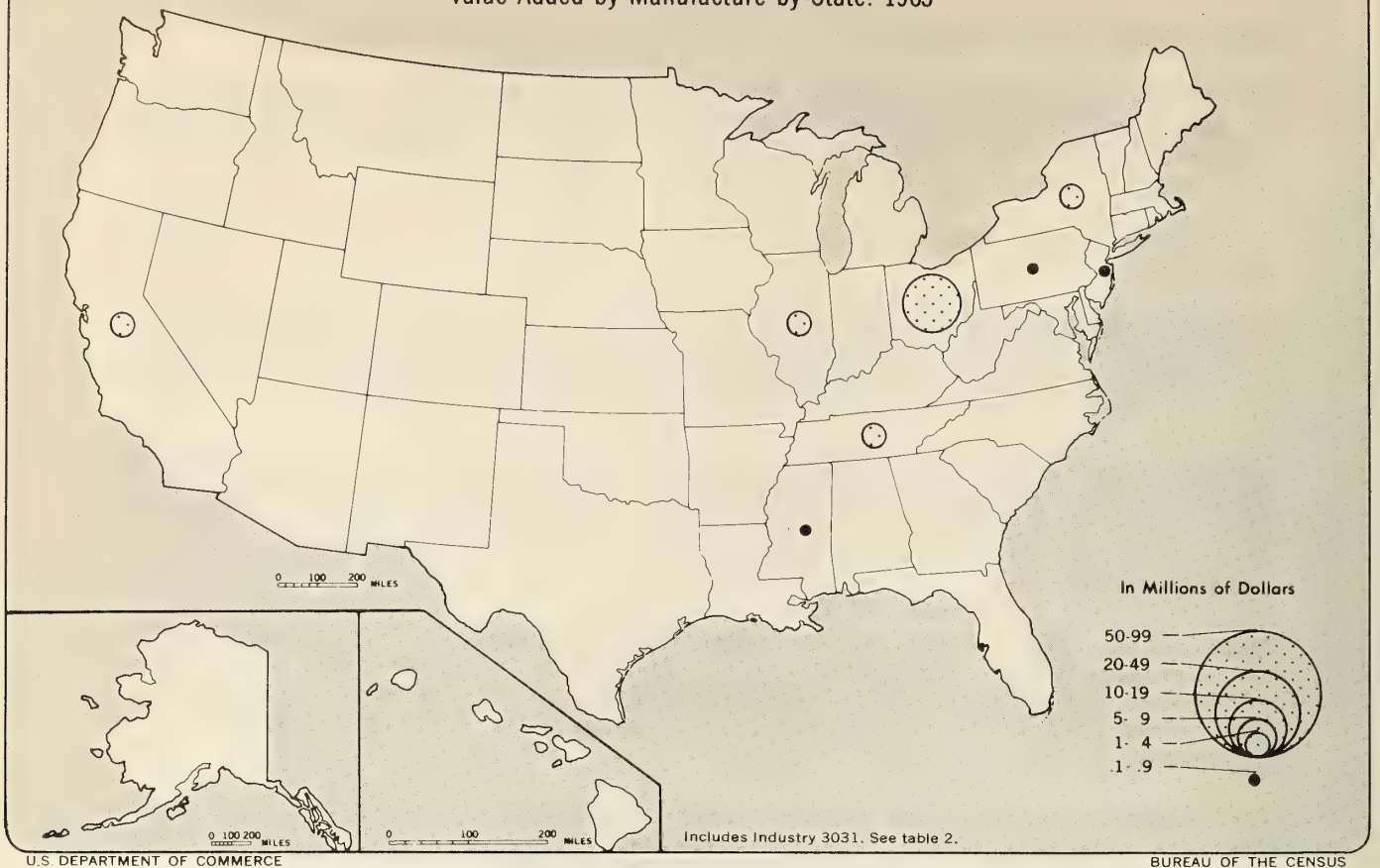
Value of shipments and other receipts of the Plastics Products, N.E.C., Industry totaled \$3,165 million. This amount included shipments of plastics products, n.e.c. (primary products) valued at \$2,812 million, shipments of other products (secondary products) valued at \$251 million, and miscellaneous receipts (mainly products bought and resold without further manufacture) at \$102 million.

This industry's shipments of plastics products, n.e.c., represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 consisted mainly of custom compounded purchased resins (\$24 million), and games and toys, except dolls and children's vehicles (\$17 million).

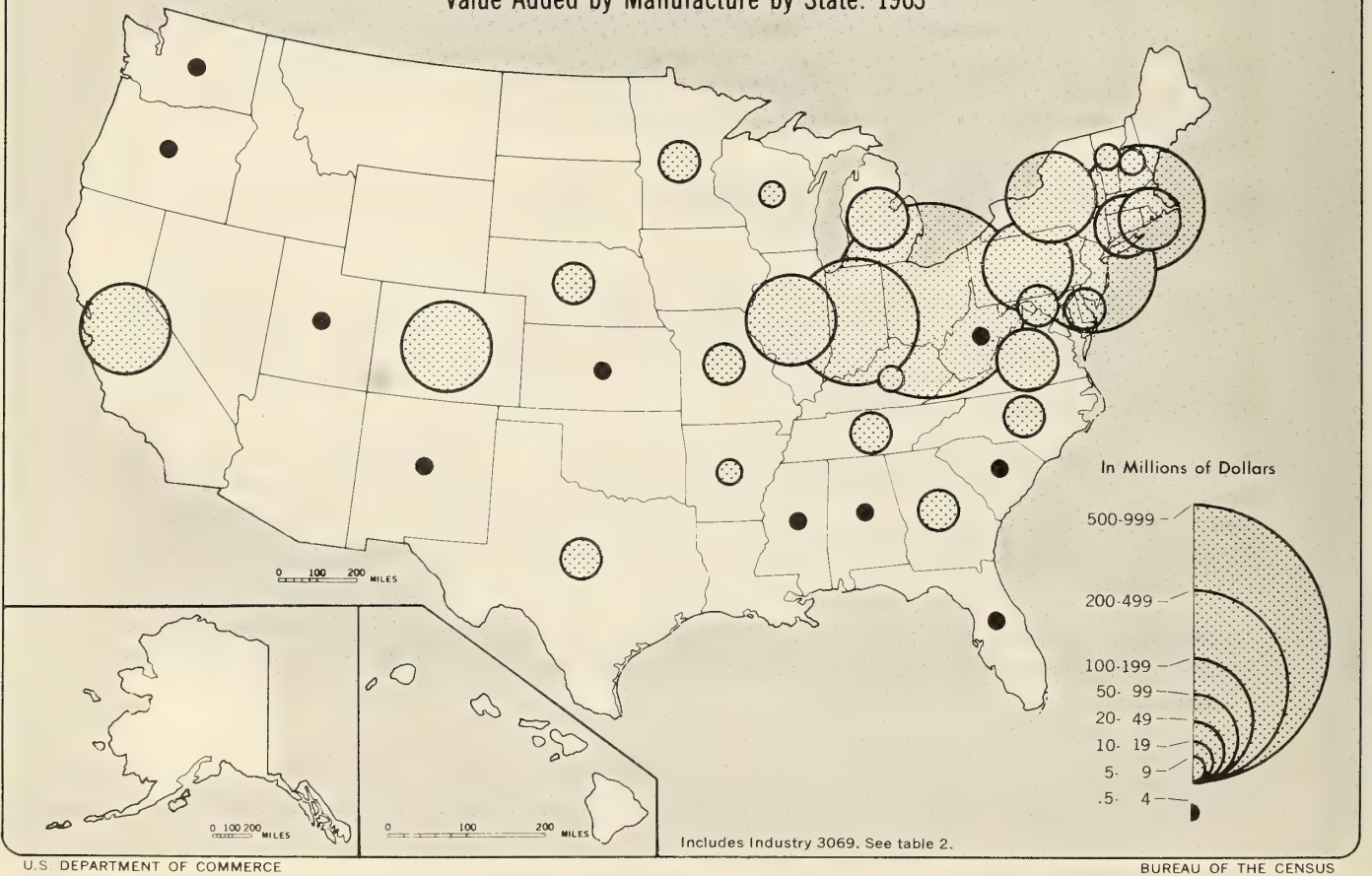
Shipments of plastics products, n.e.c., by this industry represented 80 percent of all shipments of these products (\$3,495 million) by all industries. In 1958 the coverage ratio was 85 percent.



# RECLAIMED RUBBER: SIC 303 Value Added by Manufacture by State: 1963

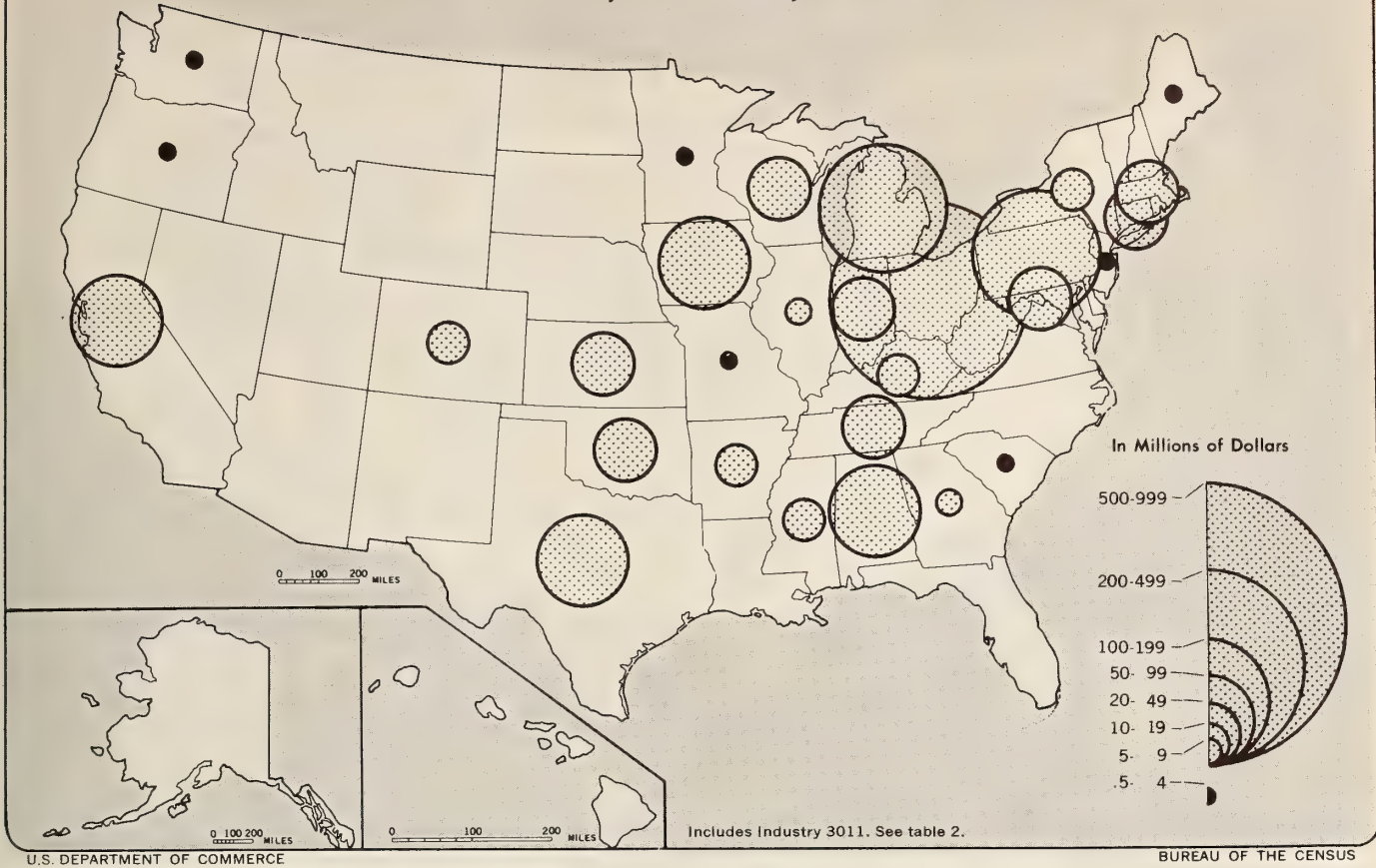


# RUBBER PRODUCTS, N.E.C.: SIC 306 Value Added by Manufacture by State: 1963



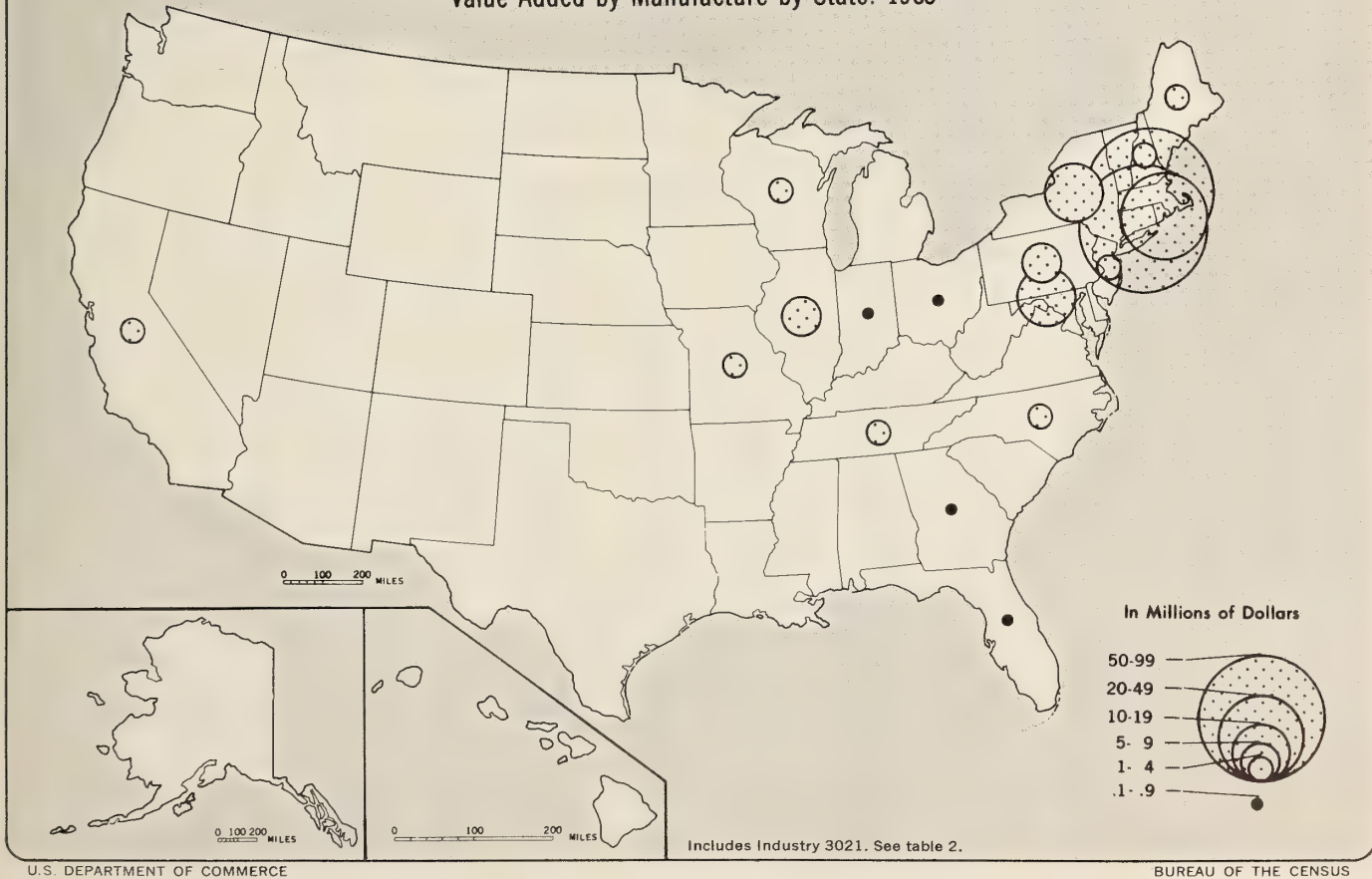
# TIRES AND INNER TUBES: SIC 301

## Value Added by Manufacture by State: 1963



# RUBBER FOOTWEAR: SIC 302

## Value Added by Manufacture by State: 1963





# PLASTICS PRODUCTS, N.E.C.: SIC 307 Value Added by Manufacture by State: 1963

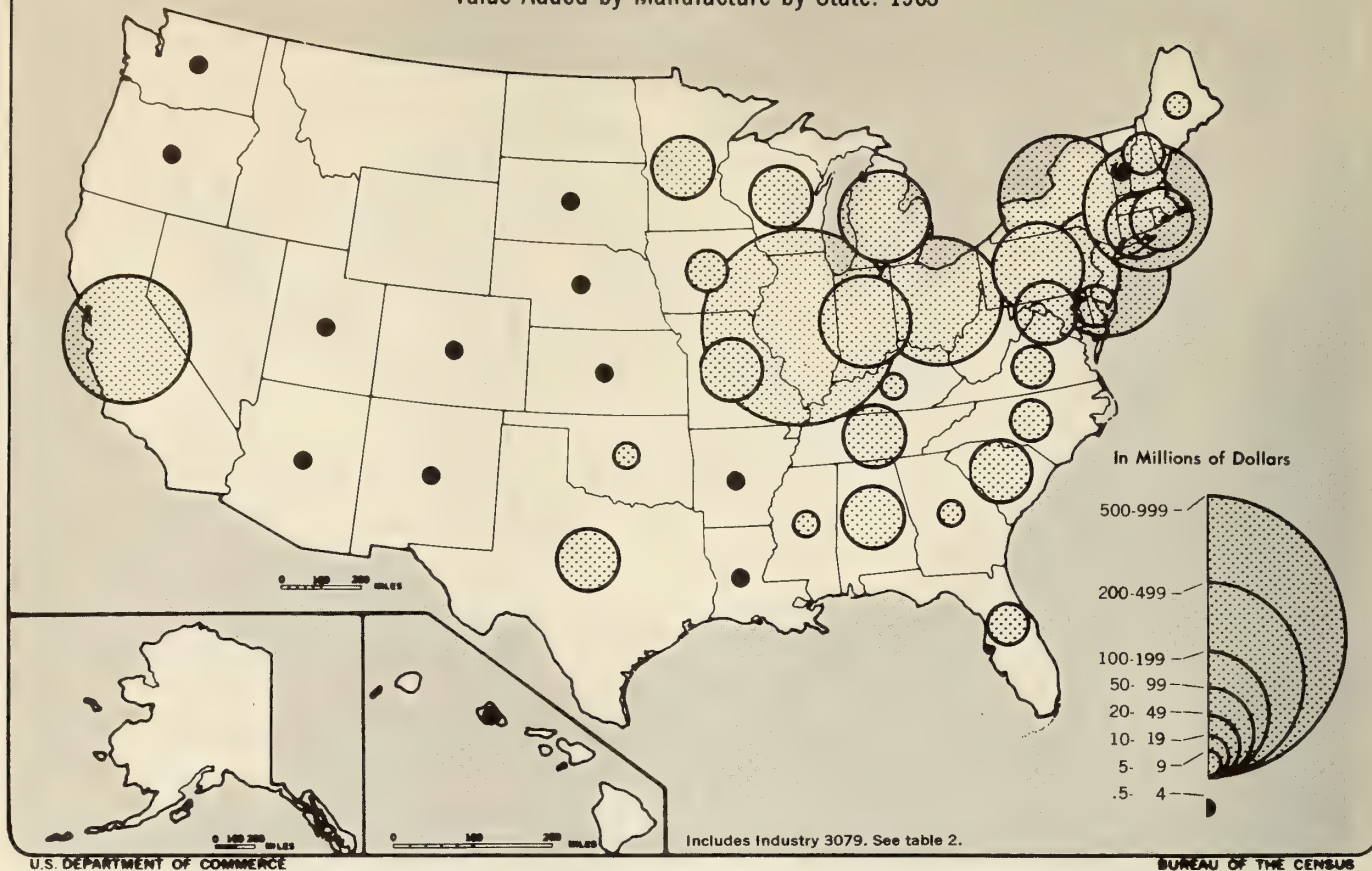


TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new  (\$1,000)	Spec- ial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3011.—TIRES AND INNER TUBES														
1963.....	105	155	96	85,259	621,741	66,268	131,783	460,145	1,321,712	1,623,090	2,949,673	112,783	(D)	99
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	86,316	618,809	67,559	137,576	463,107	1,278,062	1,602,273	2,883,654	123,271	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	86,234	568,998	66,356	129,463	419,094	1,260,845	1,443,557	2,722,958	113,836	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	92,003	589,556	72,168	140,191	438,538	1,271,606	1,607,879	2,844,255	133,443	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	94,603	596,411	75,313	146,993	451,954	1,313,383	1,660,643	2,947,089	73,944	(NA)	(NA)
1958 (new SIC) <sup>2</sup>	94	123	86	89,395	521,855	69,959	133,268	388,702	1,179,957	1,386,694	2,577,788	72,269	91	99
1958 (old SIC) <sup>2</sup>	(NA)	62	55	87,246	510,786	68,268	129,888	382,181	1,155,205	1,353,178	2,519,765	70,611	87	99
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	96,889	556,893	76,643	148,666	419,829	1,118,060	1,228,367	2,295,173	91,029	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	98,280	528,580	78,218	150,226	403,639	1,093,034	1,262,269	2,286,823	86,452	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	98,653	547,517	79,421	166,985	427,948	1,096,390	1,316,427	2,336,963	69,056	(NA)	(NA)
1954.....	27	49	46	92,748	441,607	73,976	137,981	334,104	877,771	1,115,813	1,997,399	67,430	88	99
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	97,026	462,653	79,187	154,833	367,545	904,973	1,167,765	2,072,738	79,733	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	97,911	452,458	79,933	157,868	355,853	762,369	1,232,793	1,995,162	72,897	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	92,244	402,966	75,732	151,418	315,752	753,633	1,313,559	2,067,192	58,008	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	89,520	357,291	73,899	146,074	283,109	763,787	960,917	1,724,704	42,229	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	87,042	300,663	70,992	130,052	233,429	518,968	752,665	1,271,633	25,899	(NA)	(NA)
1947.....	35	57	49	115,657	390,841	93,916	185,392	311,276	650,165	944,215	1,547,040	54,883	90	95
1939.....	(NA)	53	(NA)	67,169	122,164	54,115	(NA)	89,774	231,372	349,557	580,929	(NA)	(NA)	(NA)
1937.....	(NA)	46	(NA)	74,242	122,031	63,290	(NA)	96,707	209,002	366,858	575,860	(NA)	(NA)	(NA)
1935.....	(NA)	42	(NA)	65,715	97,061	57,128	(NA)	78,253	180,577	265,515	446,092	(NA)	(NA)	(NA)
1933.....	(NA)	44	(NA)	61,227	70,648	52,976	(NA)	54,737	159,921	139,392	299,313	(NA)	(NA)	(NA)
1931.....	(NA)	48	(NA)	(NA)	(NA)	49,159	(NA)	63,089	232,679	173,604	406,283	(NA)	(NA)	(NA)
1929.....	(NA)	91	(NA)	96,244	158,180	83,263	(NA)	127,082	340,570	429,607	770,177	(NA)	(NA)	(NA)
1927.....	(NA)	109	(NA)	95,418	160,494	78,256	(NA)	120,064	370,467	499,221	869,688	(NA)	(NA)	(NA)
1925.....	(NA)	126	(NA)	96,063	152,964	81,640	(NA)	120,614	365,062	559,940	925,002	(NA)	(NA)	(NA)
1923.....	(NA)	160	(NA)	87,059	139,711	73,963	(NA)	108,623	279,029	365,165	644,194	(NA)	(NA)	(NA)
1921.....	(NA)	178	(NA)	68,864	107,119	55,496	(NA)	75,054	204,569	291,554	496,123	(NA)	(NA)	(NA)
INDUSTRY 3021.—RUBBER FOOTWEAR														
1963.....	44	53	46	29,147	130,361	25,951	48,168	105,763	216,959	141,115	354,239	6,903	93	90
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	27,112	126,413	24,249	46,570	104,247	214,077	130,629	330,369	7,374	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,768	107,423	21,067	40,796	87,130	182,271	109,018	287,249	4,780	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,966	96,399	19,093	36,625	76,721	162,158	100,566	265,452	4,502	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,952	95,693	19,319	37,382	77,284	161,734	98,277	250,632	4,180	(NA)	(NA)
1958.....	22	27	26	20,359	85,611	17,602	34,131	68,573	149,608	81,715	229,439	3,109	(D)	(D)
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,179	81,635	17,474	33,808	65,683	144,844	74,374	219,466	2,947	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,655	83,462	18,926	36,958	68,320	139,664	77,590	209,069	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,113	73,039	17,576	34,268	59,244	115,173	73,169	185,545	(S)	(NA)	(NA)
1954.....	19	22	21	18,322	64,022	15,773	30,317	51,296	106,768	63,651	171,471	4,217	84	85
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	25,384	87,549	21,685	42,540	69,594	128,660	90,860	219,520	4,779	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,274	79,626	19,638	39,561	63,181	124,842	88,768	213,610	3,230	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,813	73,317	20,258	40,384	58,177	113,791	97,365	211,156	5,294	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,924	53,301	15,672	31,389	40,715	86,123	53,433	139,556	3,820	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,331	68,184	20,384	39,564	52,468	107,333	72,318	179,651	2,158	(NA)	(NA)
1947.....	20	26	21	28,125	72,666	23,952	48,954	58,462	121,040	80,607	198,691	4,982	80	99
1939.....	(NA)	13	(NA)	18,098	22,056	14,861	(NA)	16,802	29,231	20,750	49,981	(NA)	(NA)	(NA)
1937.....	(NA)	12	(NA)	20,731	24,645	18,356	(NA)	20,422	36,980	27,475	64,455	(NA)	(NA)	(NA)
1935.....	(NA)	12	(NA)	19,377	19,838	17,246	(NA)	16,113	32,341	20,821	53,162	(NA)	(NA)	(NA)
1933.....	(NA)	13	(NA)	20,131	17,609	18,102	(NA)	14,440	27,895	14,124	42,019	(NA)	(NA)	(NA)
1931.....	(NA)	15	(NA)	(NA)	(NA)	15,882	(NA)	13,770	35,607	12,298	47,905	(NA)	(NA)	(NA)
1929.....	(NA)	22	(NA)	29,278	37,690	25,659	(NA)	29,945	68,142	34,396	102,538	(NA)	(NA)	(NA)
1927.....	(NA)	22	(NA)	30,267	37,260	26,848	(NA)	32,079	81,235	43,373	124,608	(NA)	(NA)	(NA)
1925.....	(NA)	23	(NA)	28,402	33,434	24,999	(NA)	28,058	75,369	40,566	115,935	(NA)	(NA)	(NA)
1923.....	(NA)	25	(NA)	32,989	39,431	29,435	(NA)	33,671	86,471	45,269	131,740	(NA)	(NA)	(NA)
1921.....	(NA)	24	(NA)	27,436	28,964	23,888	(NA)	23,428	61,900	32,133	94,033	(NA)	(NA)	(NA)
1919.....	(NA)	25	(NA)	37,928	38,284	32,875	(NA)	30,883	66,570	50,347	116,917	(NA)	(NA)	(NA)
1914.....	(NA)	23	(NA)	20,357	11,945	18,687	(NA)	9,986	29,866	23,956	53,822	(NA)	(NA)	(NA)
1909.....	(NA)	22	(NA)	18,899	9,959	17,612	(NA)	8,544	20,144	29,577	49,721	(NA)	(NA)	(NA)
1904.....	(NA)	22	(NA)	19,813	9,741	18,991	(NA)	8,867	38,065	32,000	70,065	(NA)	(NA)	(NA)
1899.....	(NA)	22	(NA)	14,874	7,024	14,391	(NA)	6,427	18,407	22,683	41,090	(NA)	(NA)	(NA)
INDUSTRY 3031.—RECLAIMED RUBBER														
1963.....	7	13	13	2,010	13,598	1,658	3,145	10,413	27,378	21,669	48,879	1,309	(D)	77
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,086	13,481	1,699	3,129	10,170	26,706	22,942	49,793	990	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,225	13,164	1,812	3,218	10,105	25,426	20,664	46,538	1,175	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,415	14,508	2,016	3,722	11,431	29,149	21,744	49,933	2,755	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,339	14,149	1,976	3,770	11,268	25,004	20,719	46,956	1,110	(NA)	(NA)
1958.....	12	16	14	2,215	11,658	1,793	3,330	9,076	20,843	18,615	39,260	964	94	72
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,742	13,965	2,298	4,647	10,690	25,110	21,116	46,504	2,549	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	3,338	15,670	2,815	5,519	12,056	28,339	24,965	51,330	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	3,218	16,411	2,726	5,812	12,862	31,914	26,070	55,596	(S)	(NA)	(NA)

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new  (\$1,000)	Spec- ializa- tion ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3031.—RECLAIMED RUBBER—Continued														
1954.....	15	20	18	2,953	12,697	2,460	4,602	9,671	23,454	40,149	63,599	2,834	87	74
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,368	10,403	2,013	3,871	8,127	16,172	14,100	30,272	1,004	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,259	9,503	1,932	3,769	7,539	16,534	14,138	30,673	1,334	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,696	11,623	2,367	5,079	9,713	18,025	23,442	41,467	2,151	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,365	9,312	2,097	4,485	7,834	16,707	14,980	31,687	535	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,153	7,070	1,868	4,249	5,763	9,280	10,460	19,740	705	(NA)	(NA)
1947.....	14	15	11	2,070	6,849	1,855	4,015	5,826	9,604	8,049	17,263	2,864	95	44
1939.....	(NA)	10	(NA)	1,282	1,970	1,072	(NA)	1,477	3,902	2,992	6,894	(NA)	(NA)	(NA)
1937.....	(NA)	9	(NA)	(NA)	(NA)	1,258	(NA)	1,830	3,771	4,172	7,943	(NA)	(NA)	(NA)
INDUSTRY 3069.—RUBBER PRODUCTS, N.E.C.														
1963.....	1,046	1,173	620	132,228	760,761	100,581	203,392	516,065	1,427,022	1,171,331	2,597,999	64,955	86	89
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	128,814	725,763	96,874	197,250	489,305	1,330,558	1,117,981	2,435,970	(78,776)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	121,610	664,187	90,828	182,360	438,508	1,192,781	1,019,419	2,212,536	49,994	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	127,687	670,121	96,379	192,940	449,225	1,161,778	1,057,851	2,225,520	52,301	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	130,740	678,294	100,380	202,445	464,003	1,199,032	1,029,100	2,204,951	48,418	(NA)	(NA)
1958 (new SIC) <sup>2</sup>	976	1,074	558	119,565	592,964	89,158	176,994	396,129	997,254	881,321	1,885,274	43,603	86	86
1958 (old SIC) <sup>2</sup>	(NA)	1,138	590	122,114	606,033	91,209	181,124	404,250	1,026,006	917,837	1,950,297	45,365	86	80
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	140,084	657,358	108,927	215,725	457,521	1,174,066	951,847	2,094,765	52,153	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	141,696	632,612	111,314	221,991	447,038	1,156,676	927,766	2,039,972	64,047	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	142,885	620,298	113,681	230,243	446,517	1,133,591	939,729	2,036,622	55,984	(NA)	(NA)
1954.....	1,152	1,315	(NA)	132,503	541,011	104,028	204,513	380,427	946,407	830,253	1,777,331	53,949	88	78
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	145,002	579,414	115,968	231,115	420,949	971,638	840,417	1,812,055	41,536	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	131,635	500,579	104,363	207,315	358,975	840,396	803,594	1,643,605	49,457	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	134,039	474,680	108,243	217,865	351,278	843,894	826,147	1,669,655	48,253	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	127,656	417,115	104,593	210,466	312,709	753,310	589,830	1,342,755	33,374	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	108,842	337,468	87,092	168,440	240,811	559,087	438,100	1,000,005	34,491	(NA)	(NA)
1947.....	733	774	(NA)	112,385	311,022	94,100	185,306	237,625	518,682	436,410	945,257	47,054	85	81
1939.....	(NA)	519	(NA)	63,189	80,733	50,692	(NA)	53,358	141,650	122,875	264,525	(NA)	(NA)	(NA)
1937.....	(NA)	411	(NA)	(NA)	(NA)	46,914	(NA)	52,346	119,019	115,755	234,774	(NA)	(NA)	(NA)
INDUSTRY 3079.—PLASTICS PRODUCTS, N.E.C.														
1963.....	4,101	4,334	1,674	166,315	837,572	134,327	271,976	579,990	1,660,882	1,522,899	3,165,440	157,516	92	80
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	153,796	765,068	123,380	252,194	517,667	1,466,695	1,381,944	2,819,573	143,555	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	136,811	665,080	107,965	221,135	446,751	1,254,266	1,235,021	2,473,155	112,901	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	134,024	627,526	106,241	216,218	423,998	1,147,939	1,172,146	2,303,178	105,716	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	129,523	583,799	103,149	209,492	401,550	1,093,738	1,129,811	2,217,655	86,730	(NA)	(NA)
1958 (new SIC)	3,093	3,222	1,143	116,308	511,207	91,988	183,253	348,892	928,950	948,283	1,867,877	77,193	91	85
1958 (old SIC)	(NA)	3,208	1,136	113,066	492,436	89,905	178,812	337,510	894,440	935,142	1,822,087	75,229	89	79
1954.....	2,377	2,439	829	91,967	350,227	75,689	152,179	248,975	598,388	632,976	1,227,116	45,290	90	84
1947.....	(NA)	1,362	(NA)	58,400	156,369	49,502	102,331	119,455	258,917	214,040	472,957	27,042	91	89
1939.....	(NA)	216	(NA)	17,953	24,289	15,094	(NA)	17,688	40,157	31,747	71,904	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: **All employees:** For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). **Production workers:** For 1947 and prior years figures represent an average of 12 monthly figures. **Value added:** Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. **Cost of materials:** Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. **Value of shipments:** Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so the industry is not comparable. The 1957 and earlier figures are on the old SIC definition of the industry.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
	INDUSTRY 3011.—TIRES AND INNER TUBES												
Total.....	155	96	85,259	621,741	66,268	131,783	460,145	1,321,712	1,623,090	2,949,673	112,783	89,395	1,179,957
Northeast.....	25	16	10,155	73,189	7,901	15,865	54,062	165,194	205,192	373,674	6,829	12,048	178,970
Pennsylvania.....	12	8	5,543	40,934	4,525	9,264	32,014	101,358	110,598	214,267	4,376	5,352	91,995
East North Central.	38	24	41,456	308,649	31,418	60,477	219,566	609,256	726,242	1,348,674	63,620	( <sup>2</sup> )	( <sup>2</sup> )
Ohio.....	22	16	30,983	235,041	23,237	45,538	164,967	437,658	550,291	991,134	32,557	35,887	384,119
West North Central.	15	7	6,158	46,749	5,087	10,745	38,046	113,950	147,025	258,429	4,981	( <sup>2</sup> )	( <sup>2</sup> )
South Atlantic.....	13	8	3,237	22,099	2,536	5,456	16,403	43,450	57,598	101,397	(D)	15,020	257,588
East South Central.	18	14	10,376	74,030	8,815	18,086	61,539	168,690	240,997	407,364	(D)		
West South Central.	16	8	4,570	31,150	3,893	8,133	25,973	103,710	98,522	198,614	(D)		
West.....	30	19	9,307	65,875	6,618	13,021	44,556	117,462	147,514	261,521	20,165	10,365	135,018
	INDUSTRY 3021.—RUBBER FOOTWEAR												
Total.....	53	46	29,147	130,361	25,951	48,168	105,763	216,959	141,115	354,239	6,903	20,359	149,608
Northeast.....	37	33	22,225	103,282	19,841	36,845	84,224	178,461	107,522	281,795	4,974	15,181	119,417
Maine.....	3	3	763	2,202	684	1,255	1,654	1,305	4,216	5,326	(D)	( <sup>2</sup> )	( <sup>2</sup> )
South Atlantic.....	7	5	3,890	14,379	3,481	6,610	11,814	21,230	22,168	43,878	1,296	( <sup>2</sup> )	( <sup>2</sup> )
All other divisions.	9	8	3,032	12,700	2,629	4,713	9,725	17,268	11,425	28,566	633	( <sup>2</sup> )	( <sup>2</sup> )
	INDUSTRY 3031.—RECLAIMED RUBBER												
Total.....	13	13	2,010	13,598	1,658	3,145	10,413	27,378	21,669	48,879	1,309	2,215	20,843
Middle Atlantic.....	4	4	350	2,106	273	520	1,475	3,839	2,436	6,280	99	429	16,845
North Central, South and West....	9	9	1,660	11,492	1,385	2,625	8,938	23,539	19,233	42,599	1,210	1,786	16,845
	INDUSTRY 3069.—RUBBER PRODUCTS, N.E.C.												
Total.....	1,173	620	132,228	760,761	100,581	203,392	516,065	1,427,022	1,171,331	2,597,999	64,955	119,565	997,254
New England.....	158	90	21,162	123,559	15,457	31,551	78,944	229,333	200,049	431,769	9,672	23,748	200,971
Massachusetts....	85	50	11,991	71,337	8,613	17,675	44,998	138,350	124,524	265,162	4,122	13,945	120,155
Rhode Island.....	20	11	3,085	17,276	2,421	4,953	12,102	29,343	23,115	52,413	976	( <sup>2</sup> )	( <sup>2</sup> )
Middle Atlantic....	252	121	23,606	131,655	17,883	35,414	90,687	247,511	172,647	420,549	9,227	23,504	191,567
New York.....	84	29	5,846	28,607	4,438	8,367	18,990	56,270	40,118	97,142	1,811	5,738	42,855
New Jersey.....	105	57	10,828	62,649	8,177	16,375	43,989	111,266	77,926	189,736	4,642	12,172	103,940
Pennsylvania.....	63	35	6,932	40,399	5,268	10,672	27,708	79,975	54,603	133,671	2,774	5,594	44,772
East North Central.	380	215	57,014	347,421	43,274	87,820	237,048	599,516	526,081	1,128,606	28,514	( <sup>2</sup> )	( <sup>2</sup> )
Ohio.....	159	99	31,961	201,841	23,440	46,868	132,123	327,571	298,906	630,112	17,255	29,223	222,262
Illinois.....	80	41	6,973	39,573	5,276	10,648	25,804	82,599	61,713	144,820	4,712	( <sup>2</sup> )	( <sup>2</sup> )
West North Central.	52	22	3,779	20,497	3,019	6,234	15,168	44,541	28,939	73,541	2,236	( <sup>2</sup> )	( <sup>2</sup> )
South Atlantic.....	83	50	9,455	42,785	7,872	15,891	31,493	88,012	88,611	174,604	3,272	7,777	58,748
Maryland.....	12	10	1,826	7,724	1,546	3,099	5,740	12,929	11,914	24,168	376	2,099	14,148
Virginia.....	12	8	2,537	10,610	2,059	4,188	7,441	21,116	19,444	40,518	745	1,834	11,108
North Carolina....	14	5	1,593	7,595	1,272	2,512	5,627	19,297	15,743	34,876	450	1,548	14,740
Georgia.....	27	16	1,408	5,319	1,203	2,515	3,670	12,849	25,442	38,006	356	685	5,788
Florida.....	10	4	178	600	150	288	421	1,151	1,142	2,157	35	( <sup>2</sup> )	( <sup>2</sup> )
East South Central.	30	24	3,266	14,476	2,690	5,664	10,358	29,590	31,879	60,891	2,916	1,568	14,624
Tennessee.....	16	15	1,934	8,985	1,585	3,250	6,186	16,890	23,195	39,938	2,507	929	7,966
Mississippi.....	5	3	456	1,595	379	813	1,187	3,413	3,607	6,721	138	( <sup>2</sup> )	( <sup>2</sup> )
West South Central.	42	19	2,172	10,066	1,836	3,874	7,978	19,368	15,734	35,227	1,824	1,721	13,204
Arkansas.....	7	6	733	2,608	641	1,348	2,143	5,629	5,720	11,435	1,038	( <sup>2</sup> )	( <sup>2</sup> )
West.....	176	79	11,774	70,302	8,550	16,944	44,389	169,151	107,391	272,812	7,294	10,124	115,479
California.....	148	68	7,398	42,709	5,544	11,227	27,747	88,319	71,753	159,185	3,961	( <sup>2</sup> )	( <sup>2</sup> )

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963										1958		
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
	INDUSTRY 3079.—PLASTICS PRODUCTS, N.E.C.												
Total.....	4,334	1,674	166,315	837,572	134,327	271,976	579,990	1,660,882	1,522,899	3,165,440	157,516	116,308	928,950
New England.....	458	225	21,869	101,664	17,910	35,358	71,169	191,722	165,541	356,447	16,507	( <sup>2</sup> )	( <sup>2</sup> )
Maine.....	15	7	1,056	4,649	888	1,817	3,263	9,731	10,821	20,488	(D)	1,017	7,723
New Hampshire....	17	12	1,564	6,729	1,328	2,616	4,802	11,028	12,371	23,430	959	343	1,690
Massachusetts.....	269	136	11,972	55,715	9,705	19,137	38,097	100,910	86,946	187,525	(D)	11,083	72,119
Connecticut.....	96	44	4,555	23,690	3,704	7,361	17,219	37,417	34,081	71,755	4,855	3,920	30,813
Middle Atlantic....	1,265	492	45,015	225,655	36,805	74,372	157,044	417,797	399,021	811,965	42,482	( <sup>2</sup> )	( <sup>2</sup> )
New York.....	664	233	19,160	92,212	15,900	31,816	64,121	171,545	152,290	320,471	14,393	( <sup>2</sup> )	( <sup>2</sup> )
New Jersey.....	382	172	16,793	88,622	13,534	27,862	60,755	168,035	172,008	338,869	19,394	( <sup>2</sup> )	( <sup>2</sup> )
Pennsylvania.....	219	87	9,062	44,821	7,371	14,694	32,168	78,217	74,723	152,625	8,695	8,320	63,729
East North Central.	1,114	501	55,468	297,545	44,830	92,679	208,012	584,961	529,554	1,109,985	54,123	38,756	331,257
Ohio.....	293	153	16,480	91,668	13,461	28,830	66,276	189,226	174,095	360,943	14,604	10,336	92,564
Indiana.....	114	48	7,621	38,399	6,195	12,476	27,316	72,486	77,918	150,340	7,375	4,993	38,853
Illinois.....	379	175	19,665	108,825	15,723	32,015	73,959	209,395	163,367	371,453	22,803	16,311	140,440
Michigan.....	227	86	8,108	41,237	6,548	13,513	28,595	81,501	78,981	159,995	7,450	4,302	35,588
Wisconsin.....	101	39	3,594	17,416	2,903	5,845	11,866	32,353	35,193	67,254	1,891	2,814	23,812
West North Central.	251	89	8,419	41,491	6,536	12,881	27,640	76,380	72,787	148,938	5,975	4,205	29,685
Minnesota.....	90	23	2,425	12,613	1,832	3,755	8,065	24,715	17,737	42,876	1,758	1,122	7,584
Iowa.....	29	11	1,711	8,145	1,411	2,702	6,078	14,437	14,261	28,721	1,373	890	4,358
Missouri.....	93	44	3,473	16,979	2,653	5,276	11,330	30,938	35,025	65,412	2,180	1,687	14,213
Kansas.....	26	6	415	1,872	340	610	1,100	3,221	3,130	6,271	327	225	1,251
South Atlantic.....	273	88	11,508	54,265	8,905	18,232	35,373	114,124	116,587	227,901	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Delaware.....	12	7	1,549	8,448	1,101	2,247	5,248	11,707	14,032	25,501	2,647	( <sup>2</sup> )	( <sup>2</sup> )
Maryland.....	34	19	2,640	13,215	1,984	4,180	8,031	21,974	22,153	43,330	6,343	1,489	11,837
Virginia.....	20	10	2,134	8,860	1,801	3,524	6,446	19,589	18,217	37,301	2,284	671	4,486
South Carolina....	15	7	1,838	9,911	1,294	2,725	5,811	31,318	18,070	48,961	952	( <sup>2</sup> )	( <sup>2</sup> )
Georgia.....	32	8	615	2,756	518	1,058	2,025	6,371	9,808	16,436	1,161	( <sup>2</sup> )	( <sup>2</sup> )
Florida.....	111	18	1,149	4,941	922	1,794	3,430	10,374	9,554	19,483	923	531	3,049
East South Central.	69	31	4,690	20,062	3,839	7,804	14,285	78,655	57,543	133,409	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Mississippi.....	9	5	628	2,190	567	1,131	1,739	9,891	10,730	19,917	1,035	( <sup>2</sup> )	( <sup>2</sup> )
West South Central.	173	50	4,260	19,559	3,364	6,904	12,893	44,059	44,785	88,295	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Louisiana.....	13	4	189	730	156	309	510	3,168	1,267	4,503	194	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	123	33	3,053	14,618	2,412	4,955	9,602	31,868	35,679	67,222	2,346	( <sup>2</sup> )	( <sup>2</sup> )
West.....	731	198	15,086	77,331	12,138	23,746	53,574	153,184	137,081	288,500	15,792	539	2,883
Colorado.....	27	2	195	862	153	288	592	1,530	1,079	2,604	154	( <sup>2</sup> )	( <sup>2</sup> )
Arizona.....	21	4	255	1,164	206	385	802	2,060	1,987	4,030	270	( <sup>2</sup> )	( <sup>2</sup> )
Washington.....	41	5	359	1,939	278	534	1,301	3,607	3,158	6,740	400	254	1,927
Oregon.....	27	3	166	762	127	233	488	1,309	1,145	2,443	69	122	839
California.....	591	181	13,894	71,711	11,194	21,966	49,734	142,562	128,074	268,947	14,691	8,400	72,179

Standard Notes: - Represents Zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 3011, Tires and Inner Tubes: New England—Maine, 3 (20-99); Massachusetts, 3 (2,042); Connecticut, 2 (1,000-2,499); Middle Atlantic—New York, 2 (500-999); New Jersey, 3 (20-99); East North Central—Indiana, 5 (1,000-2,499); Illinois, 6 (250-499); Michigan, 3 (6,354); Wisconsin, 2 (1,000-2,499); West North Central—Minnesota, 4 (100-249); Iowa, 4 (3,529); Missouri, 5 (250-499); Kansas, 2 (1,000-2,499); South Atlantic—Maryland, 2 (2,500-4,999); West Virginia, 1 (1-19); North Carolina, 2 (1-19); South Carolina, 1 (20-99); Georgia, 5 (250-499); Florida, 2 (1-19); East South Central—Kentucky, 1 (500-999); Tennessee, 7 (3,729); Alabama, 6 (2,500-4,999); Mississippi, 4 (1,000-2,499); West South Central—Arkansas, 1 (500-999); Oklahoma, 4 (1,000-2,499); Texas, 11 (2,299) Mountain—Colorado, 1 (1,000-2,499); Pacific—Washington, 1 (20-99); Oregon, 2 (20-99); California, 26 (7,173).

SIC 3021, Rubber Footwear: New England—New Hampshire, 3 (1,032); Massachusetts, 8 (7,591); Rhode Island, 6 (2,500-4,999); Connecticut, 2 (5,000-9,999); Middle Atlantic—New York, 7 (1,965); New Jersey, 1 (200-249); Pennsylvania, 7 (1,000-2,499); East North Central—Ohio, 1 (20-99); Indiana, 1 (100-249); Illinois, 1 (1,000-2,499); Wisconsin, 1 (500-999); West North Central—Missouri, 1 (100-249); South Atlantic—Maryland, 2 (2,500-4,999); North Carolina, 1 (250-499); Georgia, 2 (100-249); Florida, 2 (100-249); East South Central—Tennessee, 1 (100-249); Pacific—Oregon, 1 (1-19); California, 2 (500-999).

SIC 3031, Reclaimed Rubber: Middle Atlantic—New York, 2 (250-499); New Jersey, 1 (20-99); Pennsylvania, 1 (20-99); East North Central—Ohio, 4 (500-999); Illinois, 1 (250-499); East South Central—Tennessee, 1 (100-249); Mississippi, 1 (20-99); Pacific—California, 2 (100-249).

SIC 3069, Rubber Products, n.e.c.: New England—Maine, 4 (20-99); New Hampshire, 6 (705); Vermont, 1 (500-999); Connecticut, 42 (2,500-4,999); East North Central—Indiana, 48 (12,636); Michigan, 66 (4,543); Wisconsin, 27 (901); West North Central—Minnesota, 22 (500-999); Iowa, 3 (20-99); Missouri, 19 (1,474); South Dakota, 1 (1-19); Nebraska, 5 (1,000-2,499); Kansas, 2 (20-99); South Atlantic—Delaware, 2 (2,500-4,999); West Virginia, 2 (250-499); South Carolina, 4 (250-499); East South Central—Kentucky, 4 (679); Alabama, 5 (197); West South Central—Oklahoma, 3 (20-99); Texas, 32 (1,405); Mountain—Colorado, 6 (2,500-4,999); New Mexico, 1 (100-249); Arizona, 4 (20-99); Utah, 5 (250-499); Pacific—Washington, 7 (20-99); Oregon, 5 (100-249).

SIC 3079, Plastics Products, n.e.c.: New England—Vermont, 11 (500-999); Rhode Island, 50 (1,000-2,499); West North Central—South Dakota, 2 (100-249); Nebraska, 11 (100-249); South Atlantic—District of Columbia, 2 (1-19); West Virginia, 5 (20-99); North Carolina, 42 (1549); East South Central—Kentucky, 17 (500-999); Tennessee, 29 (1,000-2,499); Alabama, 14 (1,599); West South Central—Arkansas, 16 (250-499); Oklahoma, 21 (500-999); Mountain—Montana, 2 (1-19); Idaho, 2 (1-19); Wyoming, 1 (1-19); New Mexico, 2 (20-99); Utah, 8 (20-99); Pacific—Alaska, 1 (1-19); Hawaii, 8 (20-99).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

TABLE 3. Detailed Statistics: 1963

Item	Tires and inner tubes (SIC 3011)	Rubber footwear (SIC 3021)	Reclaimed rubber (SIC 3031)	Rubber products, n.e.c. (SIC 3069)	Plastics products, n.e.c. (SIC 3079)
Primary product specialization ratio <sup>1</sup> .....	(D)	.93	(D)	.86	.92
Coverage ratio <sup>2</sup> .....	.99	.90	.77	.89	.80
Establishments, total.....number..	155	53	13	1,173	4,334
With 1 to 19 employees.....do....	59	7	-	553	2,660
With 20 to 99 employees.....do....	35	8	6	369	1,277
With 100 employees or more.....do....	61	38	7	251	397
Proprietors and working partners.....do....	37	4	2	300	1,308
All employees (average for the year).....do....	85,259	29,147	2,010	132,228	166,315
Payroll (all employees), total for year.....\$1,000..	621,741	130,361	13,598	760,761	837,572
Production workers:					
Average for the year.....number..	66,268	25,951	1,658	100,581	134,327
March.....do....	68,381	23,657	1,667	100,635	129,048
May.....do....	66,972	27,314	1,674	100,914	131,793
August.....do....	64,695	26,494	1,666	99,913	136,961
November.....do....	65,024	26,339	1,625	100,862	139,506
Man-hours.....1,000..	131,783	48,168	3,145	203,392	271,976
January-March.....do....	34,876	12,671	803	51,323	64,605
April-June.....do....	34,018	12,676	803	51,273	67,447
July-September.....do....	30,286	10,687	760	48,488	68,716
October-December.....do....	32,603	12,134	779	52,308	71,208
Wages.....\$1,000..	460,145	105,763	10,413	516,065	579,990
Cost of materials, etc., total.....do....	1,623,090	141,115	21,669	1,171,331	1,522,899
Materials, parts, containers, and supplies consumed.....do....	1,324,820	113,771	17,190	1,008,067	1,380,471
Cost of resales.....do....	263,603	22,727	1,804	117,868	56,613
Fuels consumed.....do....	13,979	981	552	16,108	13,238
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	1,949	230	242	1,833	2,551
Cost.....\$1,000..	20,097	2,587	2,103	22,657	36,030
Generated less sold.....million kw.-hrs..	745	(D)	-	76	13
Contract work.....\$1,000..	591	1,049	20	6,631	36,547
Value of shipments (including resales), total.....do....	2,949,673	354,239	48,879	2,597,999	3,165,440
Value of resales.....do....	(D)	25,050	(D)	152,300	68,599
Value added by manufacture, adjusted.....do....	1,321,712	216,959	27,378	1,427,022	1,660,882
Manufacturers' inventories:					
Beginning of year, total.....do....	411,351	82,969	5,232	325,907	334,182
Finished products.....do....	260,563	61,975	2,422	148,319	140,293
Work-in-process.....do....	47,892	6,412	259	70,567	61,660
Materials, supplies, fuel, etc.....do....	102,896	14,582	2,551	107,021	132,229
End of year, total.....do....	413,217	86,390	5,823	323,446	361,048
Finished products.....do....	255,291	65,074	2,514	148,782	153,427
Work-in-process.....do....	48,293	7,148	335	70,458	66,867
Materials, supplies, fuel, etc.....do....	109,633	14,168	2,974	104,206	140,754
Expenditures for plant and equipment, total.....do....	113,759	7,189	1,314	68,343	168,981
New, total.....do....	112,783	6,903	1,309	64,955	157,516
New structures and additions to plant.....do....	14,640	822	53	12,752	30,297
New machinery and equipment.....do....	98,143	6,081	1,256	52,203	127,219
Used plant and equipment.....do....	976	286	5	3,388	11,465
Selected operating ratios:					
Payroll/Total employment.....	7,292	4,473	6,765	5,753	5,036
Production workers/Total employment.....	.78	.89	.82	.76	.81
Man-hours/Production workers.....	1,989	1,856	1,897	2,022	2,025
Production worker wages/Man-hours.....	3.49	2.20	3.31	2.54	2.13
Cost of materials and payrolls/Total value of shipments....	.76	.77	.72	.74	.75
Cost of materials/Total value of shipments.....	.55	.40	.44	.45	.48
Adjusted value added/Total employment.....	15,502	7,444	13,621	10,792	9,986
Salaries and wages/Adjusted value added.....	.47	.60	.50	.53	.50

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
	INDUSTRY 3011.—TIRES AND INNER TUBES										
Establishments.....number..	155	32	13	14	22	13	12	12	9	22	6
All employees:											
Total.....do.....	85,259	46	91	194	711	965	2,087	4,372	6,846	36,855	33,092
Payroll.....\$1,000..	621,741	268	450	1,023	4,550	5,908	10,274	31,082	46,101	272,955	249,130
Value added, adjusted.....do....	1,321,712	519	1,031	2,517	14,526	12,400	21,745	53,607	121,608	633,844	459,915
Value of shipments.....do....	2,949,673	1,189	1,839	4,983	35,042	34,973	45,152	138,173	251,621	1,415,756	1,020,945
Capital expenditures, new...do....	112,783	<u>124,733</u>	(D)	(D)	(D)	(D)	(D)	18,270	4,029	33,195	32,556
	INDUSTRY 3021.—RUBBER FOOTWEAR										
Establishments.....number..	53	7	-	-	3	5	14	10	6	5	3
All employees:											
Total.....do.....	29,147	7	-	-	<u>544</u>	(D)	2,212	3,880	4,099	6,258	12,147
Payroll.....\$1,000..	130,361	36	-	-	<u>2,172</u>	(D)	7,834	12,852	16,020	29,356	62,091
Value added, adjusted.....do....	216,959	90	-	-	<u>3,531</u>	(D)	14,831	18,258	20,411	49,846	109,992
Value of shipments.....do....	354,239	160	-	-	<u>6,020</u>	(D)	25,983	35,797	41,863	85,872	158,544
Capital expenditures, new...do....	6,903	<u>22,429</u>	-	-	(D)	(D)	(D)	(D)	498	1,366	2,610
	INDUSTRY 3031.—RECLAIMED RUBBER										
Establishments.....number..	13	-	-	-	4	2	4	3	-	-	-
All employees:											
Total.....do.....	2,010	-	-	-	277	(D)	709	1,024	-	-	-
Payroll.....\$1,000..	13,598	-	-	-	<u>1,494</u>	(D)	4,813	7,291	-	-	-
Value added, adjusted.....do....	27,378	-	-	-	<u>3,804</u>	(D)	10,231	13,343	-	-	-
Value of shipments.....do....	48,879	-	-	-	<u>6,390</u>	(D)	17,200	25,289	-	-	-
Capital expenditures, new...do....	1,309	-	-	-	<u>186</u>	(D)	<u>1,123</u>	(D)	-	-	-
	INDUSTRY 3069.—RUBBER PRODUCTS, N.E.C.										
Establishments.....number..	1,173	265	130	158	230	139	125	69	34	19	4
All employees:											
Total.....do.....	132,228	492	876	2,225	7,503	9,579	19,499	23,709	23,614	24,417	20,314
Payroll.....\$1,000..	760,761	2,716	4,258	11,581	37,118	50,540	105,777	130,227	134,374	146,463	137,707
Value added, adjusted.....do....	1,427,022	6,252	9,806	24,895	84,536	109,326	199,296	242,787	254,534	266,046	229,544
Value of shipments.....do....	2,597,999	12,777	21,190	51,910	172,197	211,510	365,188	422,370	446,723	483,294	410,840
Capital expenditures, new...do....	64,955	<u>11,770</u>	<u>2,158</u>	(D)	4,010	3,898	11,193	12,588	9,977	10,240	9,121
	INDUSTRY 3079.—PLASTICS PRODUCTS, N.E.C.										
Establishments.....number..	4,334	1,365	618	677	854	423	294	78	20	5	-
All employees:											
Total.....do.....	166,315	2,640	4,142	9,538	27,019	29,662	45,523	27,561	13,238	6,992	-
Payroll.....\$1,000..	837,572	11,492	18,421	43,688	123,603	145,799	230,913	144,020	74,985	44,651	-
Value added, adjusted.....do....	1,660,882	26,839	34,974	89,623	244,761	291,099	456,933	277,512	149,854	89,287	-
Value of shipments.....do....	3,165,440	51,611	70,927	170,629	469,091	576,070	893,354	513,247	279,615	140,896	-
Capital expenditures, new...do....	157,516	<u>36,291</u>	3,580	7,552	22,847	26,786	48,390	25,759	10,069	6,242	-

- Represents zero. n.e.c. Not elsewhere classified.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

<sup>1</sup>Includes capital expenditures of approximately \$5-\$10 million for plants under construction but not in operation.<sup>2</sup>Includes capital expenditures of approximately \$500-\$1,000 thousand for plants under construction but not in operation.<sup>3</sup>Includes capital expenditures of approximately \$1-\$2 million for plants under construction but not in operation.

**TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B+C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3011	Tires and inner tubes.....1963..	2,949,673	2,398,549	(D)	(D)	(D)	2,419,789	2,398,549	21,240	99
	1958..	2,577,788	2,122,024	197,273	258,491	91	2,145,326	2,122,024	23,302	99
3021	Rubber footwear.....1963..	354,239	305,475	23,085	25,679	93	339,584	305,475	34,109	90
	1958..	229,439	(D)	(D)	10,929	(D)	213,684	(D)	(D)	(D)
3031	Reclaimed rubber.....1963..	48,879	42,720	(D)	(D)	(D)	55,249	42,720	12,529	77
	1958..	39,260	34,137	2,181	2,942	94	47,646	34,137	13,509	72
3069	Rubber products, n.e.c.....1963..	2,597,999	2,084,965	342,829	170,205	86	2,355,614	2,084,965	270,649	89
	1958..	1,885,274	1,508,525	253,280	123,469	86	1,759,077	1,508,525	250,552	86
3079	Plastics products, n.e.c.....1963..	3,165,440	2,812,355	250,615	102,470	92	3,494,584	2,812,355	682,229	80
	1958..	1,867,877	1,631,533	159,708	76,636	91	1,914,467	1,631,533	282,934	85

Note: See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.  
n.e.c. Not elsewhere classified.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Tires and inner tubes (SIC 3011)	Rubber footwear (SIC 3021)	Reclaimed rubber (SIC 3031)	Rubber products, n.e.c. (SIC 3069)	Other industries
RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS INDUSTRY							
	Total shipments and receipts of the industry.....	(X)	2,949,673	354,239	48,879	2,597,999	(X)
	Rubber products.....	5,170,236	2,518,068	314,664	(D)	2,128,505	(D)
30111	Passenger car and motorcycle pneumatic tires.....	1,285,885	(over 1,000)	-	-	(under 2)	-
30112	Truck and bus (and off-the-road) pneumatic tires.....	659,516	(over 500)	-	-	(under 2)	-
30113	Other pneumatic tires and solid tires.....	186,792	177,714	-	-	(under 2)	(under 2)
30114	All inner tubes.....	95,065	(over 50-100)	-	-	(under 2)	-
30115	Tread rubber, tires sundries, and repair materials....	192,531	182,081	-	-	5,135	15,315
30210	Rubber footwear.....	339,584	-	305,475	-	(over 2)	(2)
30310	Reclaimed rubber.....	55,249	(2-5)	-	42,720	(under 2)	(3)
30691	Rubber belts and belting.....	179,016	(over 2)	-	-	(100-200)	(under 2)
30692	Rubber hose and tubing.....	297,365	9,325	-	-	267,854	420,186
30693	Sponge and foam rubber goods.....	226,433	(10-20)	(over 2)	-	195,107	(3)
30694	Rubber floor and wall covering.....	93,238	9,479	-	-	79,798	63,961
30695	Mechanical rubber goods, n.e.c.....	850,747	36,260	(under 2)	-	776,634	(7)
30696	Rubber heels and soles.....	136,213	(under 2)	(under 2)	-	122,337	(8)
30697	Druggist and medical sundries.....	79,232	(under 2)	-	-	71,129	(9)
30698	Other rubber goods, n.e.c.....	450,956	(20-50)	(under 2)	(2-5)	366,493	1046,477
30690	Rubber products, n.s.k.....	42,414	(under 2)	-	-	(20-50)	(under 2)
	Other products.....	(X)	(50-100)	(10-20)	(under 2)	299,289	(X)
28424	Polishing preparations and related products.....	(X)	-	-	-	2,168	(X)
28911	Glues and adhesives and sizes.....	(X)	(under 2)	-	-	4,029	(X)
30791	Unsupported plastics film, sheets, sheeting, rods, tubes, and other stock shapes.....	(X)	-	-	-	13,502	(X)
30792	Foamed plastics products.....	(X)	(over 2)	-	-	28,280	(X)
30795	Industrial plastics products.....	(X)	(under 2)	(under 2)	-	18,787	(X)
30796	Construction plastics products.....	(X)	-	-	-	8,470	(X)
30798	Consumer and commercial plastics products, n.e.c.....	(X)	(under 2)	(2-5)	-	28,720	(X)
32932	Gaskets, all types.....	(X)	(over 2)	-	-	22,846	(X)
35442	Industrial molds.....	(X)	-	-	-	2,845	(X)
35552	Other printing trades machinery, including parts and attachments.....	(X)	(over 2)	-	-	5,497	(X)
39410	Games and toys, except dolls and children's vehicles..	(X)	(under 2)	-	-	2,148	(X)
39492	Other sporting and athletic goods.....	(X)	-	-	-	16,486	(X)
	Other secondary products.....	(X)	(over 2)	(11)	(under 2)	12145,511	(X)
	Miscellaneous receipts.....	(X)	(D)	25,679	(D)	170,205	(X)
	Resales.....	(X)	(D)	25,050	(D)	152,300	(X)
	Contract work.....	(X)	(D)	(D)	(D)	8,819	(X)
	Other miscellaneous receipts.....	(X)	(D)	(D)	(D)	9,086	(X)

Prod. class code	Class of products and miscellaneous receipts	All industries	Plastics products, n.e.c. (SIC 3079)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Plastics products, n.e.c. (SIC 3079)	Other industries
PLASTICS PRODUCTS, N.E.C.					PLASTICS PRODUCTS, N.E.C.—Continued				
	Total shipments and receipts of the industry.....	(X)	3,165,440	(X)		Secondary products.....	(X)	250,615	(X)
	Primary products.....	3,494,584	2,812,355	682,229	22953	Other impregnated and coated fabrics (except rubbercoated)....	(X)	11,951	(X)
30791	Unsupported plastics film, sheets, sheetings, rods, tubes, and other stock shapes.....	688,090	397,020	291,070	23920	Other housefurnishings.....	(X)	2,756	(X)
28211					24995	Wood products, n.e.c.....	(X)	3,644	(X)
30792	Foam plastics products.....	261,210	198,825	62,385	25190	Household furniture, n.e.c.....	(X)	17,017	(X)
30793	Laminated sheets, rods, and tubes.	244,138	231,859	12,279	26432	Specialty bags and liners.....	(X)	5,230	(X)
30794	Packaging and shipping containers, plastics.....	441,841	401,573	40,268	26451	Office supplies (filing accessories) and miscellaneous products	(X)	(over 2)	(X)
30795	Industrial plastics products.....	832,761	734,950	97,811	26552	Fiber cans, tubes, and other fiber products.....	(X)	(10-15)	(X)
30796	Construction plastics products...	283,832	231,469	52,363	28214	Thermosetting resins and plastics materials.....	(X)	(over 2)	(X)
30797	Plastics dinnerware, tableware and kitchenware.....	147,580	136,619	10,961	28217	Custom compounding of purchased resins.....	(X)	24,516	(X)
30798	Consumer and commercial plastics products, n.e.c.....	457,064	348,040	109,024	28219	Plastics and resin materials, n.e.c.	(X)	7,310	(X)
30790	Plastics products, n.s.k.....	138,068	132,000	6,068	28242	Other noncellulosic synthetic organic fibers.....	(X)	(over 2)	(X)

See footnotes at end of table.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Plastics products, n.e.c. (SIC 3079)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Plastics products, n.e.c. (SIC 3079)	Other industries
	PLASTICS PRODUCTS, N.E.C.—Continued					PLASTICS PRODUCTS, N.E.C.—Continued			
	Secondary products—Continued					List of other industries with over \$2 million shipments of each primary product class—continued			
28519	Miscellaneous paint products.....	(X)	(over 2)	(X)		2293 Padding and upholstery filling.....	(X)	(X)	6,035
30692	Rubber hose and tubing.....	(X)	(5-10)	(X)	30792	2821 Plastics materials and resins.....	(X)	(X)	(10-20)
30693	Sponge and foam rubber goods.....	(X)	8,415	(X)		3011 Tires and inner tubes.....	(X)	(X)	(over 2)
30694	Rubber floor and wall covering...	(X)	3,848	(X)		3069 Rubber products, n.e.c.....	(X)	(X)	21,027
30698	Other rubber goods, n.e.c.....	(X)	2,907	(X)		3293 Gaskets and insulations....	(X)	(X)	(over 2)
31310	Boot and shoe cut stock and findings.....	(X)	2,529	(X)		2821 Plastics materials and resins.....	(X)	(X)	(over 2)
32922	Asbestos friction materials.....	(X)	(over 2)	(X)	30793	3299 Nonmetallic products, n.e.c.	(X)	(X)	(over 2)
34443	Other sheet metal work.....	(X)	(over 2)	(X)		2654 Sanitary food containers....	(X)	(X)	(over 2)
34944	Other metal valves and fittings, except plumbers' brass goods and fittings.....	(X)	(over 2)	(X)	30794	2834 Pharmaceutical preparations.	(X)	(X)	(over 2)
35442	Industrial molds.....	(X)	20,316	(X)		3461 Metal stampings.....	(X)	(X)	16,812
35690	General industrial machinery, n.e.c.....	(X)	(over 2)	(X)	30795	2295 Coated fabric, not rubberized.....	(X)	(X)	2,287
35990	Carburetors, pistons, and other machine shop products.....	(X)	2,253	(X)		2641 Paper coating and glazing...	(X)	(X)	(over 2)
39410	Games and toys, except dolls and children's vehicles.....	(X)	17,576	(X)		2821 Plastics materials and resins.....	(X)	(X)	7,151
39492	Other sporting and athletic goods	(X)	2,184	(X)		3069 Rubber products, n.e.c.....	(X)	(X)	21,558
39630	Buttons and parts, except of precious or semiprecious metals and precious or semiprecious stones.	(X)	3,906	(X)		3259 Structural clay products, n.e.c.....	(X)	(X)	(over 2)
39932	Nonelectric signs and advertising displays.....	(X)	3,089	(X)		3296 Mineral wool.....	(X)	(X)	(10-20)
	Other secondary products.....	(X)	67,229	(X)		3461 Metal stampings.....	(X)	(X)	3,900
	Miscellaneous receipts.....	(X)	102,470	(X)		3679 Electronic components, n.e.c.	(X)	(X)	(over 2)
	Resales.....	(X)	68,599	(X)	36796	3729 Aircraft equipment, n.e.c....	(X)	(X)	(over 2)
	Contract work.....	(X)	24,725	(X)		3941 Games and toys.....	(X)	(X)	3,167
	Other miscellaneous receipts.....	(X)	9,146	(X)		3981 Brooms and brushes.....	(X)	(X)	(2-5)
	List of other industries with over \$2 million shipments of each primary product class:					2643 Bags, except textile bags...	(X)	(X)	(over 2)
30791	2295 Coated fabric, not rubberized.....	(X)	(X)	16,523	30797	2851 Paints and allied products..	(X)	(X)	(over 2)
	2641 Paper coating and glazing..	(X)	(X)	(over 2)	30798	3069 Rubber products, n.e.c.....	(X)	(X)	5,993
	2643 Bags, except textile bags..	(X)	(X)	12,236		3259 Structural clay products, n.e.c.....	(X)	(X)	(5-10)
	2821 Plastics materials and resins.....	(X)	(X)	52,755		3729 Aircraft equipment, n.e.c....	(X)	(X)	(over 2)
	3292 Asbestos products.....	(X)	(X)	(over 2)		3981 Brooms and brushes.....	(X)	(X)	(over 2)
	3729 Aircraft equipment, n.e.c....	(X)	(X)	(5-10)		2821 Plastics materials and resins.....	(X)	(X)	3,254
	3861 Photographic equipment.....	(X)	(X)	(5-10)		3021 Rubber footwear.....	(X)	(X)	3,954
						3069 Rubber products, n.e.c.....	(X)	(X)	34,932
						3429 Hardware, n.e.c.....	(X)	(X)	(over 2)
						3452 Bolts, nuts, rivets, and washers.....	(X)	(X)	(over 2)
						3461 Metal stampings.....	(X)	(X)	(15-20)
						3941 Games and toys.....	(X)	(X)	3,282
						3981 Brooms and brushes.....	(X)	(X)	(over 2)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Includes \$2 million or more shipped by establishments classified in industry 3949, Sporting and Athletic Goods, but exact data are withheld to avoid disclosing individual company figures.

<sup>2</sup>Includes \$2 million or more shipped by establishments classified in industry 3142, House Slippers, but exact data are withheld to avoid disclosing individual company figures.

<sup>3</sup>Includes \$2 million or more shipped by establishments classified in industry 2818, Organic Chemicals, N.E.C., and in industry 3633, Household Laundry Equipment, but exact data are withheld to avoid disclosing individual company figures.

<sup>4</sup>Includes \$2 million or more shipped by establishments classified in each of the following industries: 3079, Plastics Products, N.E.C.; 3494, Valves and Pipe Fittings; 3561, Pumps and Compressors; and 3644, Noncurrent Carrying Devices. Exact data are withheld to avoid disclosing individual company figures.

<sup>5</sup>Includes \$3,166 thousand shipped by establishments classified in industry 2291, Felt Goods, N.E.C., and \$8,415 thousand shipped by establishments classified in industry 3079, Plastics Products, N.E.C.

<sup>6</sup>Includes \$3,848 thousand shipped by establishments classified in industry 3079, Plastics Products, N.E.C.

<sup>7</sup>Includes \$4,306 thousand shipped by establishments classified in industry 3121, Industrial Leather Belting, \$12,480 thousand shipped by establishments classified in industry 3293, Gaskets and Insulations, and \$12,831 thousand shipped by establishments classified in industry 3555, Printing Trades Machinery. In addition, \$2 million or more was shipped by establishments classified in industry 3842, Surgical Appliances and Supplies, but exact data are withheld to avoid disclosing individual company figures.

<sup>8</sup>Includes \$7,326 thousand shipped by establishments classified in industry 3131, Footwear Cut Stock. In addition, \$2 million or more was shipped by establishments classified in industry 2821, Plastics Materials and Resins, but exact data are withheld to avoid disclosing individual company figures.

<sup>9</sup>Includes \$2 million or more shipped by establishments classified in industry 2342, Corsets and Allied Garments, but exact data are withheld to avoid disclosing individual company figures.

<sup>10</sup>Includes \$2,871 thousand shipped by establishments classified in industry 2295, Coated Fabric, Not Rubberized, \$2,373 thousand shipped by establishments classified in industry 2821, Plastics Materials and Resins, and \$2,907 thousand shipped by establishments classified in industry 3079, Plastics Products, N.E.C. In addition, shipments of \$2 million or more were made by establishments classified in the following industries, but exact data are withheld to avoid disclosing individual company figures: 2291, Felt Goods, N.E.C.; 2641, Paper Coating and Glazing; 2818, Organic Chemicals, N.E.C.; and 2891, Glue and Gelatin.

<sup>11</sup>Includes shipments of \$2 million or more in product class 31310, Boot and shoe cut stock and findings, but exact data are withheld to avoid disclosing individual company figures.

<sup>12</sup>Includes shipments of \$2 million or more in each of the following product classes, but exact data are withheld to avoid disclosing individual company figures: 22562, Circular knit fabrics; 22952, Resin-coated fabrics; 26414, Pressure sensitive tape; 26495, Other converted paper and board products; 28430, Surface active and finishing agents; 28993, Essential oils, fireworks, and pyrotechnics, and chemicals and chemical preparations, n.e.c.; 31210, Industrial leather belting and packing; 32926, Vinyl asbestos floor tile; 32933, Packing, except leather, rubber, and metal, and asbestos insulations; 34612, Job stampings, except automotive; 34942, Fittings and unions for piping systems; 37175, Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers; 37291, Other aircraft parts and auxiliary equipment; 37292, Guided missile components and subassemblies, n.e.c.; 38421, Surgical, orthopedic, and prosthetic appliances and supplies; and 38423, Personal industrial safety devices.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Unit of measure	1963			1958		
			Production for all purposes (quantity)	Total shipments, including interplant transfers		Production for all purposes (quantity)	Total shipments, including interplant transfers	
				Quantity	Value (\$1,000)		Quantity	Value (\$1,000)
3011- --	TIRES AND INNER TUBES, TOTAL.....		(X)	(X)	2,419,789	(X)	(X)	2,145,326
30111 11	Passenger car and motorcycle pneumatic tires (casings).....	1,000 tires..	123,549	121,921	1,285,885	84,675	84,188	1,076,828
30112 11	Truck and bus (and off-the-highway) pneumatic tires. ....do.....		16,957	16,535	659,516	12,999	13,804	601,952
30113 --	Other pneumatic tires and solid tires.....		(X)	(X)	186,792	(X)	(X)	185,455
30113 11	Aircraft.....	1,000 tires..	570	575	31,388	477	463	43,715
30113 13	Tractor and implement (farm, garden, and industrial).....	..do.....	3,616	3,498	90,186	3,636	3,474	94,969
30113 15	Industrial.....	..do.....	3,152	3,068	21,888	1,782	1,838	12,994
30113 17	Bicycle casings and single tube tires.....	..do.....	9,609	9,706	10,167	8,243	8,152	9,352
30113 33	Solid tires:							
30113 35	Industrial and highway.....	..do.....	}	(S)	17,096	(NA)	(NA)	8,254
	Bogie, idler, and support rollers.....	1,000 units..		(S)		270	222	1,789
30113 41	Other solid and semipneumatic:							
	2.00" and larger, except hand lawn mower, baby carriage, tricycle, juvenile, etc.....	1,000 tires..	(S)	(S)	5,235	(S)	(S)	2,908
30113 51	Less than 2.00", including hand lawn mower, baby carriage, tricycle, juvenile, etc.....	..do.....	(S)	(S)	10,832	(S)	(S)	11,474
30114 --	All inner tubes.....		(X)	(X)	95,065	(X)	(X)	100,185
30114 21	Passenger car and motor vehicle.....	1,000 tubes..	28,397	28,826	39,672	33,737	33,027	48,575
30114 23	Truck and bus, including off-the-highway.....	..do.....	11,431	11,488	36,285	8,572	8,813	32,780
30114 24	Aircraft.....	..do.....	281	284	1,885	278	276	2,705
30114 25	Tractor and implement (farm, garden, and industrial).....	..do.....	2,767	2,798	8,159	2,721	2,694	8,916
30114 26	Industrial.....	..do.....	2,621	2,552	2,885	1,991	1,888	2,077
30114 27	Bicycle.....	..do.....	9,808	10,057	6,179	8,746	8,451	5,132
30115 --	Tread rubber, tire sundries, and repair materials, total.....		(X)	(X)	192,531	(X)	(X)	180,906
30115 11	Tread rubber (camelback), including slab rubber for use in automatic tread rubber extruding machines.....	1,000 lbs....	515,372	518,433	140,729	489,993	487,211	138,442
30115 31	Tire flaps.....	1,000 units..	12,218	9,142	12,578	11,152	10,866	8,116
30115 39	Other tire sundries, repair materials and tiring..	1,000 lbs....	(S)	(S)	35,894	(S)	(S)	30,147
30115 00	Tread rubber, tire sundries, and repair materials, n.s.k.....		(X)	(X)	3,330	(X)	(X)	4,201
3021- --	RUBBER FOOTWEAR, TOTAL.....		(X)	(X)	339,584	(X)	(X)	213,684
	Canvas footwear, total.....	1,000 pairs..	152,885	148,335	268,216	71,409	70,001	135,274
30210 11	Bals.....	..do.....	23,943	24,125	48,786	20,392	19,855	42,821
30210 13	Oxfords.....	..do.....	102,011	97,585	179,618	40,717	39,999	72,114
30210 15	Specialty shoes.....	..do.....	26,931	26,625	39,812	10,300	10,147	20,339
	Waterproof footwear, total.....	..do.....	20,869	21,314	65,526	25,437	26,469	76,750
30210 21	Boots.....	..do.....	1,475	1,540	9,653	3,014	3,009	14,347
30210 31	Lumberman and pacs.....	..do.....	1,060	1,139	8,260	1,691	1,672	10,277
	Arctics and gaiters:							
30210 41	Buckle and automatic, except style.....	..do.....	4,602	4,840	16,705	6,500	6,914	24,004
30210 45	Style, rubber and cloth.....	..do.....	6,115	6,190	18,526	6,011	6,503	15,124
30210 51	Light and heavy rubbers.....	..do.....	7,617	7,605	12,382	8,221	8,371	12,998
30210 98	Other rubber footwear and rubber footwear, n.s.k....		(NA)	(NA)	5,842	(NA)	(NA)	1,660
3031- --	RECLAIMED RUBBER.....		(X)	(X)	55,249	(X)	(X)	147,646
30310 11	Reclaimed rubber (any vulcanizable material, except reclaimed residue or "mud," derived from processing or treatment of natural or synthetic (chemical) vulcanized scrap rubber).....	1,000 lbs....	632,872	533,044	55,249	582,568	501,963	47,123
30310 51	Crumb or ground rubber.....	..do.....	(1)	(1)	(1)	14,197	10,030	523

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	1963			1958		
			Production for all purposes (quantity)	Total shipments, including interplant transfers		Production for all purposes (quantity)	Total shipments, including interplant transfers	
				Quantity	Value (\$1,000)		Quantity	Value (\$1,000)
3069- --	FABRICATED RUBBER PRODUCTS, N.E.C., TOTAL.....		(X)	(X)	2,355,614	(X)	(X)	1,759,077
30691 --	Rubber belts and belting, total.....		(X)	(X)	179,016	(X)	(X)	137,930
30691 11	Conveyor and elevator.....	1,000 lbs...	61,970	62,679	59,459	52,373	52,199	52,403
30691 13	Transmission:							
	Flat.....	...do.....	(S)	(S)	14,391	8,837	9,924	11,228
30691 21	V-belt:							
	Motor vehicles:							
30691 21	Pounds.....	...do.....	17,665	19,734	35,164	13,189	12,408	21,902
30691 25	Units.....	1,000 units..	45,399	-	-	(S)	-	-
30691 31	Industrial, except fractional.....	1,000 lbs...	14,552	15,039	28,350	11,103	11,162	22,651
30691 41	Agricultural, except fractional.....	...do.....	4,439	4,370	7,403	3,217	2,932	4,794
30691 51	Fractional horsepower.....	...do.....	9,003	9,941	19,990	8,420	8,080	16,125
30691 59	Other V-belt.....	...do.....	(S)	(S)	2,587			
30691 69	Other transmission.....	...do.....				(S)	(S)	8,450
30691 98	All other rubber belts and belting.....	...do.....	(S)	(S)	9,420			
30691 00	Rubber belts and belting, n.s.k.....		(X)	(X)	2,252	(X)	(X)	377
30692 --	Rubber hose and tubing, total.....		(X)	(X)	297,365	(X)	(X)	180,655
30692 13	Hose:							
	Horizontal reinforced:							
30692 13	Textile.....	1,000 lbs...	(S)	(S)	34,378	(NA)	(NA)	(NA)
30692 15	Wire.....	...do.....	31,393	30,996	42,285	17,585	18,052	23,420
30692 21	Vertical braided:							
	Garden.....	...do.....	34,234	33,943	13,583	20,890	19,786	7,581
30692 27	Radiator.....	...do.....	51,152	48,797	24,944	45,833	44,480	23,019
30692 29	Other.....	...do.....	70,087	66,514	43,951	(S)	(S)	33,686
30692 31	Wrapped:							
	Hand built.....	...do.....	17,637	17,623	22,135	13,781	13,662	15,043
30692 39	Machine.....	...do.....	15,763	15,516	16,564	(S)	(S)	17,142
30692 41	Circular woven-fire:							
	Specification.....	...do.....	10,425	10,315	9,539	6,218	6,393	6,751
30692 45	Commercial.....	...do.....	(S)	(S)	7,058	(S)	(S)	5,305
30692 49	Other.....	...do.....	(S)	(S)	1,751	(S)	(S)	3,131
30692 61	Gasoline.....	...do.....	12,216	11,999	12,561	12,027	12,319	11,687
30692 71	Other rubber hose, including railroad specification.....	...do.....	(S)	(S)	51,872	(S)	(S)	25,371
30692 81	Tubing, except medical and surgical and reinforced	...do.....	20,320	20,374	12,004	12,519	12,452	6,987
30692 00	Rubber hose and tubing, n.s.k.....		(X)	(X)	4,740	(X)	(X)	1,532
30693 --	Sponge and foam rubber goods, total.....		(X)	(X)	226,433	(X)	(X)	200,751
30693 11	Latex foam:							
	Automobile seating.....	1,000 lbs...	36,857	37,028	26,056	36,610	37,528	29,618
30693 21	Upholstery:							
	Fully molded cushions.....	...do.....				54,703	58,274	47,103
30693 29	Other, including slab stock, cored building stock, etc.....	...do.....	74,139	71,193	36,796	19,789	20,316	12,309
30693 31	Mattress cores (except polyurethane):							
	Pounds.....	...do.....	24,137	-	-	23,938	-	-
30693 35	Units.....	1,000 units..	595	593	12,568	737	768	19,839
30693 41	Pillows:							
	Pounds.....	1,000 lbs...	(S)	-	-	12,310	-	-
30693 45	Units.....	1,000 units..	2,948	2,948	4,766	7,987	7,762	15,278
30693 51	Carpet and rug cushions.....	1,000 sq. yds.	(S)	(S)	8,251			
30693 69	Other latex foam products, including hospital padding and topper pads.....	1,000 lbs...	(S)	(S)	59,119	35,476	36,895	30,168
30693 72	Chemically blown sponge:							
	Carpet and rug cushions.....	1,000 sq. yds.	50,806	50,670	43,480	119,009	120,192	39,436
30693 79	Other.....	1,000 lbs...	46,525	49,631	31,845			
30693 00	Sponge and foam rubber goods, n.s.k.....		(X)	(X)	3,552	(X)	(X)	7,000
30694 --	Rubber floor and wall covering, total.....		(X)	(X)	93,238	(X)	(X)	99,376
30694 21	Mats, matting and stair treads:							
	Rolls.....	1,000 sq. yds.	(S)	(S)	7,295	(S)	(S)	7,918
30694 23	Individual mats:							
	Automotive.....	...do.....	(S)	(S)	49,899	(S)	(S)	41,942
30694 25	All other, including stair treads.....	...do.....	(S)	(S)	12,378	(S)	(S)	13,537
30694 27	Other flooring:							
	Sheet goods.....	...do.....	(S)	(S)	6,305	(S)	(S)	5,671
30694 28	Tile.....	...do.....	5,719	5,822	12,587	(S)	(S)	20,001

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	1963			1958		
			Production for all purposes (quantity)	Total shipments, including interplant transfers		Production for all purposes (quantity)	Total shipments, including interplant transfers	
				Quantity	Value (\$1,000)		Quantity	Value (\$1,000)
3069- --	FABRICATED RUBBER PRODUCTS, N.E.C.—Continued							
30694 --	Rubber floor and wall covering—Continued							
30694 29	Wall coverings, including core base, wainscoting, etc.....	1,000 sq. yds.	(S)	(S)	4,579	8,038	7,837	10,307
30694 00	Rubber floor and wall covering, n.s.k.....		(X)	(X)	195	(X)	(X)	
30695 --	Mechanical rubber goods, n.e.c., total.....		(X)	(X)	850,747	(X)	(X)	534,671
	Hard rubber mechanical goods:							
	Battery, jars, boxes, and parts:							
30695 11	Jars and boxes.....	1,000 units..	33,055	32,242	33,828	19,775	20,803	21,940
30695 15	Parts.....		(X)	(X)	24,692	(X)	(X)	21,485
30695 18	Other.....		(X)	(X)	25,473	(X)	(X)	11,755
	Other rubber mechanical goods (except printer's rolls and ink rollers and gaskets):							
	Molded:							
30695 21	Automotive.....	1,000 lbs....	(S)	(S)	141,822	(S)	(S)	174,416
30695 23	Adhered to metal, except automotive.....	..do.....	(S)	(S)	42,110			
30695 29	Other.....	..do.....	(S)	(S)	118,027			
	Extrusion and lathe cut (except tubing):							
30695 33	Extrusions only.....	..do.....	(S)	(S)	78,515	(S)	(S)	35,785
30695 35	Lathe cut.....	..do.....	(S)	(S)	15,907	(S)	(S)	11,904
30695 41	O-rings.....	..do.....	(S)	(S)	37,768	(S)	(S)	24,089
30695 45	Packing (for sealing moving parts).....	..do.....	(S)	(S)	69,796	(S)	(S)	38,586
30695 51	Pressure sensitive tape, including friction....	..do.....	(S)	(S)	23,885	(S)	(S)	20,285
30695 71	Rolls, covered, including all industry rolls except graphic arts.....		(X)	(X)	21,448	(X)	(X)	16,903
30695 81	Tank blocks, treads, and band tracks.....		(X)	(X)	44,197	(X)	(X)	11,165
30695 83	Fuel cells.....		(X)	(X)	30,403	(X)	(X)	42,499
30695 85	Boats, pontoons, and life rafts.....		(X)	(X)	10,765	(X)	(X)	6,281
30695 98	Other, including sheet rubber and jar rings....		(X)	(X)	102,275	(X)	(X)	85,709
30695 00	Mechanical rubber goods, n.e.c., n.s.k.....		(X)	(X)	29,836	(X)	(X)	11,869
30696 --	Rubber heels and soles, total.....		(X)	(X)	136,213	(X)	(X)	134,856
	Shoe products rubber, elastomer resin:							
30696 11	Heels.....	1,000 pairs..	200,723	201,104	30,736	287,973	283,408	41,470
30696 31	Soles.....	..do.....	140,795	140,371	49,075	135,808	131,184	45,414
30696 51	Soling slabs and top lift sheets.....	1,000 sq. ft.	174,711	170,675	55,484	148,190	143,671	47,972
30696 00	Shoe products rubber, elastomer resin, n.s.k.....		(X)	(X)	918	(X)	(X)	-
30697 --	Druggist and medical sundries, total.....		(X)	(X)	79,232	(X)	(X)	56,953
	Rubber druggist and medical sundries including household gloves:							
30697 11	Water bottles, fountain syringes, and combinations.....	Gross.....	56,159	56,648	9,270	30,145	30,464	5,352
30697 31	Nipples and pacifiers.....	..do.....	822,240	845,724	5,741	763,209	696,923	4,635
	Gloves, including rubberized:							
30697 51	Household.....	Dozen pairs..	1,865,534	1,846,915	10,782	1,378,471	1,395,486	8,632
30697 61	Surgical.....	..do.....	4,968,379	4,763,541	13,947	2,404,983	2,299,824	7,780
30697 75	Prophylactics (including rubber and other materials).....	Dozen.....	53,411,937	50,357,330	17,319	(X)	(X)	30,187
30697 76	Diaphragms, separate and in kits.....	Number.....	(S)	(S)	2,152			
30697 79	Other, including ice bags and caps, and medical-surgical tubing.....		(X)	(X)	17,796			
30697 00	Druggist and medical sundries, n.s.k.....		(X)	(X)	2,225	(X)	(X)	367
30698 --	Other rubber goods, n.e.c., total.....		(X)	(X)	450,956	(X)	(X)	392,308
	Rubber coated fabrics:							
30698 14	Garment fabrics.....	1,000 sq. yds.	(S)	(S)	7,274	13,801	13,781	6,506
30698 16	Shoe and slipper fabrics.....	..do.....	(S)	(S)	11,601	21,964	21,980	9,691
30698 17	Other coated fabrics, including automotive and furniture upholstery.....	..do.....	(S)	(S)	36,329	(S)	(S)	22,579
	Rubber clothing:							
30698 41	Industrial rubber gloves.....	Dozen pair..	1,663,391	1,628,585	12,513	817,683	820,350	7,206
30698 55	Bathing and shower caps.....	Gross.....	(S)	(S)	4,641	69,302	66,996	5,360
30698 58	Other rubber clothing (rainwear, aprons, dress shields, etc.).....		(X)	(X)	10,094	(X)	(X)	3,006
30698 61	Thread bare.....	1,000 lbs....	19,860	18,844	25,296	15,139	15,415	22,267
	Cement for sale as such:							
30698 64	Latex type.....	1,000 gals..	(S)	(S)	49,032	(S)	(S)	28,669
30698 65	Solvent type.....	..do.....	(S)	(S)	38,380	(S)	(S)	44,835

See footnotes at end of table.

TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	1963			1958			
			Production for all purposes (quantity)	Total shipments, including interplant transfers		Production for all purposes (quantity)	Total shipments, including interplant transfers		
				Quantity	Value (\$1,000)		Quantity	Value (\$1,000)	
3069- --	FABRICATED RUBBER PRODUCTS, N.E.C.—Continued								
30698 --	Other rubber goods, n.e.c.—Continued								
	Balloons:								
30698 68	Toy and advertising.....	Gross.....	(S)	(S)	12,841	}	(S)	(S)	
30698 69	Meteorological.....	...do.....	(S)	(S)	2,692			11,584	
	Stationers' sundries:								
30698 73	Bands.....	1,000 lbs....	(S)	(S)	7,550	(S)	(S)	7,039	
30698 74	Other, including finger cots, erasers, excluding pencil plugs.....	...do.....	(S)	(S)	5,236	(S)	(S)	4,284	
30698 79	Balls, except tennis, bowling, golf, footballs, and other inflatable athletic balls.....		(X)	(X)	2,629	(X)	(X)	5,629	
30698 81	Toys, except balloons, balls, and dolls.....		(X)	(X)	8,238	(X)	(X)	6,124	
30698 91	Compounds, or mixtures for sale or interplant transfers.....		(X)	(X)	118,396	(X)	(X)	78,136	
30698 98	Other rubber goods, including rubber brushes, combs, mouthpieces, etc.....		(X)	(X)	85,503	(X)	(X)	109,892	
30698 00	Other rubber goods, n.e.c., n.s.k.....		(X)	(X)	12,711	(X)	(X)	19,501	
30690 00	Fabricated rubber products, n.e.c., n.s.k.....		(X)	(X)	42,414	(X)	(X)	21,577	
	Product					Value of shipments including interplant transfers (\$1,000)			
						1963	1958		
3079- --	PLASTICS PRODUCTS, N.E.C.:								
	As reported in census of manufactures <sup>3</sup> .....					3,494,584		1,914,467	
	As reported in Current Industrial Reports M30D.....					3,299,798		(NA)	
	Unsupported plastics film, sheets, sheeting, rods, tubes, and other stock shapes:								
	As reported in census of manufactures <sup>3</sup> .....					688,090		(NA)	
30791 --	Made from purchased resins.....					521,358		(NA)	
28211 --	Made from resins produced in the same establishment.....					166,732		(NA)	
	As reported in Current Industrial Reports M30D.....					671,987		(NA)	
30791 --	Made from purchased resins.....					505,330		(NA)	
28211 --	Made from resins produced in the same establishment.....					166,657		(NA)	
	Unsupported film, sheets, and sheeting, total.....					580,631		(NA)	
	Cellulosic, total.....					56,771		(NA)	
30791 10	Less than 3.0 mils and not specified by gauge.....					34,308		(NA)	
30791 11									
28211 1-	3.0 mils to 9.9 mils.....					11,134		(NA)	
30791 13									
30791 15	10.0 mils and over.....					11,329		(NA)	
28211 5-									
	Polyethylene, total.....					167,691		(NA)	
30791 21	Less than 3.0 mils.....					126,175		(NA)	
28211 21									
30791 23	3.0 mils to 9.9 mils.....					30,814		(NA)	
28211 23									
30791 25	10.0 mils and over.....					4,299		(NA)	
28211 25									
30791 20	Not specified by gauge.....					6,403		(NA)	
	Polypropylene, total.....					15,847		(NA)	
30791 31	Less than 3.0 mils.....					14,665		(NA)	
28211 31									
30791 33-35	3.0 mils and over.....					1,182		(NA)	
	Polystyrene, total.....					18,456		(NA)	
30791 41	Less than 3.0 mils.....					7,099	}	(NA)	
28211 41									
30791 43	3.0 mils to 9.9 mils.....					11,357		(NA)	
30791 45									
28211 45	10.0 mils and over.....							(NA)	
30791 51	Styrene, copolymer, all gauges.....					2,665		(NA)	
30791 55									
	Vinyl and vinyl copolymer, total.....					183,569		(NA)	
30791 61	Less than 3.0 mils.....					39,132		(NA)	
28211 61									
30791 63	3.0 mils to 9.9 mils.....					44,818		(NA)	
28211 63									
						9,601		(NA)	

See footnotes at end of table.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Value of shipments including interplant transfers (\$1,000)	
		1963	1958
3079- --	PLASTICS PRODUCTS, N.E.C.—Continued		
30791 --	Unsupported plastics film, sheets, sheeting, rods, tubes, and other stock shapes—Continued		
28211 --			
	As reported in Current Industrial Reports M30D—Continued		
	Unsupported film, sheets, and sheeting—Continued		
	Vinyl and vinyl copolymer—Continued		
30791 65	10.0 mils and over.....	67,318	(NA)
28211 65		7,031	(NA)
30791 60	Not specified by gauge.....	15,669	(NA)
28211 60			
30791 70-	Other unsupported plastic film, sheets, and sheeting, all gauges.....	135,632	(NA)
77			
28211 71-	Other unsupported plastic film, sheets, and sheeting, all gauges.....	135,632	(NA)
77			
	Unsupported plastics rods, tubes, and other stock shapes (excluding foam), total.....	76,629	(NA)
30791 81	Acrylate and methacrylate.....	3,487	(NA)
30791 83	Cellulosics.....	9,816	(NA)
28211 83			
30791 85	Polyamide (nylon).....	4,936	(NA)
30791 87	Polyethylene.....	7,093	(NA)
30791 89	Polypropylene.....	3,163	(NA)
30791 91	Polystyrene.....	6,320	(NA)
30791 93	Styrene copolymer.....	1,397	(NA)
30791 95	Vinyl and vinyl copolymer.....	19,226	(NA)
28211 95			
30791 97	Other unsupported plastics rods, tubes, and other stock shapes.....	21,191	(NA)
30791 00	Unsupported plastics film, sheets, sheeting, rods, tubes, and other stock shapes, n.s.k.....	14,727	(NA)
28210 0-			
30792 --	Foamed plastics products, total:		
	As reported in census of manufactures <sup>3</sup> .....	261,210	54,040
	As reported in Current Industrial Reports M30D.....	246,451	(NA)
30792 11	Mattress cores (uncovered only).....	8,430	(NA)
30792 21	Formed and slab stock for pillows, sealing, cushioning, etc.....	127,168	(NA)
30792 31	Insulation.....	48,873	(NA)
30792 98	Other foamed plastics products.....	51,601	(NA)
30792 00	Foamed plastics products, n.s.k.....	10,379	(NA)
30793 --	Laminated sheets, rods, and tubes, total:		
	As reported in census of manufactures <sup>3</sup> .....	244,138	162,924
	As reported in Current Industrial Reports M30D.....	239,509	(NA)
	High pressure thermosetting:		
30793 11	Decorative sheets.....	136,832	(NA)
30793 21	Metal clad sheets.....	22,062	(NA)
30793 31	Other sheets.....	34,759	(NA)
30793 41	Rods and tubes.....	9,577	(NA)
	Low pressure:		
30793 51	Thermosetting sheets.....	10,633	(NA)
30793 61	Thermosetting rods and tubes.....	2,409	(NA)
30793 71	Thermoplastic sheets, rods, and tubes on materials other than textile or random fiber.....	13,965	(NA)
30793 00	Laminated sheets, rods, and tubes, n.s.k.....	9,272	(NA)
30794 --	Plastics packaging and shipping containers, total:		
	As reported in census of manufactures <sup>3</sup> .....	441,841	(NA)
	As reported in Current Industrial Reports M30D.....	440,935	(NA)
30794 11	Baskets.....	2,773	(NA)
30794 21	Open top and trays (except tote boxes).....	6,916	(NA)
30794 23	Tote boxes.....	2,117	(NA)
30794 27	Boxes and cases with tops.....	32,254	(NA)
	Bottles and drums:		
30794 31	Less than 8 fluid ounce bottles and vials.....	26,207	(NA)
30794 32	8 to 32 fluid ounce bottles.....	66,439	(NA)
30794 33	33 to 64 fluid ounce bottles.....	20,630	(NA)
30794 35	65 to 128 fluid ounce bottles.....	20,057	(NA)
30794 37	129 to 256 fluid ounce bottles.....		(NA)
30794 41	5 gallons only.....	441	(NA)
30794 43	Over 2 gallons (except 5 gallons).....	2,557	(NA)
30794 53	Disposable cups and tumblers (including foamed).....	26,093	(NA)
30794 57	Jars and tubs.....	12,931	(NA)
30794 67	Foamed protective shipping pads and shaped packaging.....	8,227	(NA)
30794 71	Caps and closures.....	98,090	(NA)
30794 77	Blister and bubble formed packaging.....	9,742	(NA)
30794 51	Cans.....	1,618	(NA)

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Value of shipments including interplant transfers (\$1,000)	
		1963	1958
3079- --	PLASTICS PRODUCTS, N.E.C.—Continued		
30794 --	Plastics packaging and shipping containers—Continued		
	As reported in Current Industrial Reports M30D—Continued		
30794 61	Tubes, collapsible only.....	88,192	(NA)
30794 98	Other plastics packaging and related products (including synthetic meat and sausage casings).....		(NA)
30794 00	Plastics packaging and shipping containers, n.s.k.....	15,651	(NA)
30795 --	Industrial plastics products, total:		
	As reported in census of manufactures <sup>3</sup> .....	832,761	(NA)
	As reported in Current Industrial Reports M30D.....	828,178	(NA)
30795 11	Gears, bearings, bushings, and cams.....	22,811	(NA)
	Components, housing, accessories, and parts for—transportation equipment:		
30795 21	Motor vehicles.....	166,331	(NA)
30795 23	Aircraft .....	30,430	(NA)
30795 25	Missile.....	56,830	(NA)
30795 28	Other transportation equipment.....	13,155	(NA)
30795 31	Office, computing, accounting machines, cash register, data processing machines, etc.....	19,867	(NA)
	Household and commercial appliances:		
30795 41	Air conditioners.....	7,254	(NA)
30795 43	Refrigerators and freezers.....	45,085	(NA)
30795 45	Other major appliances.....	45,668	(NA)
30795 47	Small appliances.....	41,089	(NA)
30795 51	Other electrical and electronic equipment, including wiring devices.....	137,531	(NA)
30795 68	Other components, housings, accessories, and parts.....	77,595	(NA)
30795 98	Other industrial plastics products.....	76,102	(NA)
30795 00	Industrial plastics products, n.s.k.....	88,436	(NA)
30796 --	Construction plastics products, total:		
	As reported in census of manufactures <sup>3</sup> .....	283,832	(NA)
	As reported in Current Industrial Report M30D.....	280,604	(NA)
30796 11	Corrugated and flat panels.....	40,761	(NA)
30796 21	Doors and partitions, folding accordian type.....	19,105	(NA)
	Unsupported plastics floor, wall, and counter covering:		
30796 31	Sheet goods.....	11,379	(NA)
30796 35	Floor tile.....	45,200	(NA)
30796 37	Wall tile.....	9,895	(NA)
30796 51	Plumbing fixturer and parts (excluding pipe and fittings).....	13,613	(NA)
	Pipe:		
30796 53	1/2 to less than 2 inches, inside diameter.....	32,452	(NA)
30796 55	2 inches and over inside diameter.....	16,837	(NA)
30796 54	Not specified by size.....	8,379	(NA)
30796 57	Fittings and unions.....	21,394	(NA)
30796 98	Other construction plastics products.....	60,694	(NA)
30796 00	Construction plastics products, n.s.k.....	895	(NA)
30797 --	Plastics dinnerware, tableware and kitchenware, total:		
	As reported in census of manufactures <sup>3</sup> .....	147,580	(NA)
	As reported in Current Industrial Reports M30D.....	144,843	(NA)
30797 13	Plastics dinnerware and kitchenware (for serving food and drink).....	89,467	(NA)
30797 15	Plastics kitchenware (for storing food and drink).....	55,376	(NA)
30798 --	Consumer and commercial plastics products, n.e.c., total:		
	As reported in census of manufactures <sup>3</sup> .....	4457,064	(NA)
	As reported in Current Industrial Reports M30D.....	4333,394	(NA)
30798 11	Utility containers.....	40,409	(NA)
30798 21	Flower pots, flower boxes, and planters.....	11,370	(NA)
	Footwear and shoe products:		
30798 41	Shoe products.....	33,682	(NA)
30798 31	Arties and gaiters.....		(NA)
30798 51	Other footwear.....	10,553	(NA)
30798 61	Garden hose.....	23,137	(NA)
30798 63	Other hose.....	9,978	(NA)
30798 65	Tubing (under 1/2 inch inside diameter).....	9,244	(NA)
30798 71	Hardware.....	9,457	(NA)
30798 73	Picnic jugs, cooler chests, and ice buckets (including foamed).....	11,681	(NA)
30798 75	Clotheslines.....	1,920	(NA)
30798 98	Other consumer and commercial plastics products, n.e.c.....	152,313	(NA)
30798 00	Other consumer and commercial plastics products, n.e.c., n.s.k.....	19,650	(NA)

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Value of shipments including interplant transfers (\$1,000)	
		1963	1958
3079- --	PLASTICS PRODUCTS, N.E.C.—Continued		
30798 --	Consumer and commercial plastics products, n.e.c.—Continued		
30790 00	Plastics products, n.s.k:		
	As reported in census of manufactures.....	138,068	79,400
	As reported in Current Industrial Reports M30D.....	113,897	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Includes crumb or ground rubber (grindings of scrap not devulcanized by the pan or digester process) in 1958. Crumb or ground rubber data were not collected in 1963.

<sup>2</sup>For 1958, quantity in 1,000 pounds.

<sup>3</sup>Because of changes in classification, 1963 and 1958 product lines are, for the most part, not comparable. In 1958 the only unsupported film, sheet, and sheeting separately classified were vinyl and polyethylene; other unsupported film, sheets, sheeting, rods, tubes, and other stock shapes made from purchased resins were reported in other classifications. For quantities of resins consumed in producing individual product lines see Current Industrial Reports Series M30D, "Shipments of Selected Plastics Products."

<sup>4</sup>The difference between the value of shipments reported in the census of manufactures and the value reported in the Current Industrial Reports Series M30D is accounted for in part by plastics products reported in the census of manufactures as products of industry 3079, Plastics Products, N.E.C., without sufficient description to recode properly into a more correct product code in other industries and by new producers reporting in the census of manufactures but not included in the 1963 Current Industrial Reports.

TABLE 6B. **Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)		Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value			Production	Unit value
3011-	Tires and inner tubes.....1963..	145	96	3031-	Reclaimed rubber.....1963..	107	117
	1958..	110	113		1958..	100	107
30111	Passenger car and motorcycle pneumatic tires (casings).....1963..	159	95	3069-	Fabricated rubber products, n.e.c. <sup>1</sup> ..1963..	143	102
	1958..	110	115		1958..	106	104
30112	Truck and bus (and off-the-highway) tires.....1963..	132	96	30691	Rubber belts and belting.....1963..	114	124
	1958..	104	111		1958..	85	127
30113	Other pneumatic tires and solid tires.....1963..	144	102	30692	Rubber hose and tubing.....1963..	178	112
	1958..	120	122		1958..	111	109
30114	All inner tubes.....1963..	83	95	30693	Sponge and foam rubber goods.....1963..	121	93
	1958..	78	106		1958..	108	111
30115	Tread rubber, tire, sundries, and repair materials.....1963..	163	108	30696	Rubber heels and soles.....1963..	107	111
	1958..	157	106		1958..	162	105
3021-	Rubber footwear.....1963..	203	101	30697	Druggist and medical sundries.....1963..	107	113
	1958..	127	103		1958..	(2)	(2)
				3079-	Plastics products, n.e.c.....1963..	(2)	(2)
					1958..	(2)	(2)

n.e.c. Not elsewhere classified.

<sup>1</sup>Adjusted to include product classes 30694, Rubber floor and wall covering; 30695, Mechanical rubber goods, n.e.c.; and 30698, Other rubber goods, n.e.c., for which separate indexes are not shown due to the lack of adequate quantity information covering these products.

<sup>2</sup>Not shown because comparable quantity data going back to 1958 and 1954 were not obtained for these products.

TABLE 6C. Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3011-	Tires and inner tubes.....\$1,000..	2,419,789	2,367,283	2,254,218	2,365,350	2,424,345	2,145,326	1,729,912	1,512,980
30111	Passenger car and motorcycle pneumatic tires.....do..	1,285,885	1,276,358	1,213,101	1,256,751	1,215,574	1,076,828	854,244	671,404
30112	Truck and bus (and off-the-road) pneumatic tires.....do..	659,516	639,957	589,494	639,648	695,763	601,952	520,169	536,708
30113	Other pneumatic tires and solid tires.....do..	186,792	173,328	179,848	195,896	211,565	185,455	127,143	105,244
30114	All inner tubes.....do..	95,065	97,588	92,969	98,056	112,763	100,185	120,361	150,001
30115	Tread rubber, tire sundries, and repair materials.....do..	192,531	180,052	178,806	174,999	188,680	180,906	107,995	49,623
3021-	Rubber footwear:								
	Quantity.....1,000 pairs..	169,531	163,983	131,552	115,565	104,511	96,597	75,761	79,358
	Value.....\$1,000..	339,584	314,993	274,747	252,061	232,948	213,684	163,730	159,190
3031-	Reclaimed rubber.....do..	55,249	57,100	53,329	57,476	56,156	47,646	44,542	36,040
3069-	Rubber products, n.e.c. ....do..	2,355,614	2,217,523	2,036,292	2,021,341	2,035,801	1,759,077	1,610,268	936,121
30691	Rubber belts and belting:								
	Quantity.....1,000 lbs..	(S)	113,293	102,762	105,028	111,468	102,805	113,423	140,732
	Value.....\$1,000..	179,016	160,866	147,489	146,501	159,614	137,930	126,932	128,782
30692	Rubber hose and tubing.....do..	297,365	249,035	225,502	220,575	231,750	180,655	148,509	122,784
30693	Sponge and foam rubber goods.....do..	226,433	240,842	214,377	220,013	223,704	200,751	178,924	50,559
30694	Rubber floor and wall covering.....do..	93,238	82,889	83,910	107,057	111,177	99,376	92,444	49,204
30695	Mechanical rubber goods,n.e.c. ....do..	850,747	756,443	649,438	647,750	623,865	534,671	556,276	255,826
30696	Rubber heels and soles.....do..	136,213	140,753	133,008	132,398	144,283	134,856	113,088	72,175
30697	Druggist and medical sundries.....do..	79,232	74,302	71,946	65,262	65,002	56,953	46,776	35,133
30698	Other rubber goods, n.e.c.....do..	450,956	481,064	485,363	456,895	453,085	392,308	343,100	215,854
30690	Rubber products, n.e.c., n.s.k.....do..	42,414	(S)	(S)	(S)	(S)	21,577	4,219	5,804
3079- 28211	Plastics products, n.e.c.....do..	3,494,584	<sup>2</sup> 3,061,104	<sup>2</sup> 2,613,779	<sup>2</sup> 2,397,923	<sup>2</sup> 2,312,170	<sup>2</sup> 1,914,467	<sup>2</sup> 1,285,603	<sup>2</sup> 480,680
30791 28211	Unsupported plastics film, sheets, rods, tubes, and other stock shapes..do..	688,090	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
30792	Foamed plastics products.....do..	261,210	187,675	169,980	111,943	91,224	54,040	17,746	(NA)
30793	Laminated sheets, rods, and tubes.....do..	244,138	252,636	219,092	211,025	200,434	162,924	102,401	48,340
30794	Packaging and shipping containers, plastics.....do..	441,841	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
30795	Industrial plastics products.....do..	832,761	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
30796	Construction plastics products.....do..	283,832	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
30797	Plastics, dinnerware, tableware, and kitchenware.....do..	147,580	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
30798	Consumer and commercial plastics products, n.e.c.....do..	457,064	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
30790	Plastics products, n.e.c., n.s.k.....do..	138,068	(S)	(S)	(S)	(S)	79,400	23,123	17,147

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>2</sup>Because a major revision in the classification of products assigned to Industry 3079, Miscellaneous Plastics Products, was introduced in 1963, prior data, for the most part, are not comparable at the product class level.



TABLE 6D. **Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
<b>PASSENGER CAR AND MOTORCYCLE PNEUMATIC TIRES (30111)</b>			<b>RUBBER BELTS AND BELTING (30691)</b>			<b>MECHANICAL RUBBER GOODS, N.E.C. (30695)</b>		
United States, total....	1,285,885	1,076,828	United States, total....	179,016	137,930	United States, total....	850,747	534,671
Northeast.....	203,198	198,243	New England.....	9,163	49,504	New England.....	84,021	68,236
East North Central.....	470,087	381,688	Middle Atlantic.....	47,124		Massachusetts.....	54,798	42,212
Ohio.....	247,929	( <sup>2</sup> )	New Jersey.....	25,809	25,111	Connecticut.....	18,828	17,158
West North Central.....	125,251	99,625	East North Central.....	37,588	( <sup>2</sup> )	Middle Atlantic.....	131,180	98,699
South.....	355,181	258,361	Ohio.....	35,033	39,946	New York.....	30,250	17,286
West.....	132,168	138,911	West North Central.....	38,122	( <sup>2</sup> )	New Jersey.....	56,761	48,236
<b>TRUCK AND BUS (AND OFF-THE-ROAD) PNEUMATIC TIRES (30112)</b>			South and West.....	47,019	33,025	Pennsylvania.....	44,169	33,177
United States, total....	659,516	601,952	<b>RUBBER HOSE AND TUBING (30692)</b>			East North Central.....	467,171	261,094
Northeast.....	64,419	74,117	United States, total....	297,365	180,655	Ohio.....	212,772	132,489
Pennsylvania.....	40,496	38,973	New England.....	20,945	9,963	Indiana.....	127,618	65,163
East North Central.....	296,905	285,307	Middle Atlantic.....	63,967	59,459	Illinois.....	66,826	30,901
Ohio.....	210,682	( <sup>2</sup> )	New York.....	10,169	( <sup>2</sup> )	Michigan.....	48,477	26,033
West North Central.....	64,238	52,612	New Jersey.....	45,572	44,385	Wisconsin.....	11,478	6,508
South.....	192,471	143,487	Pennsylvania.....	8,226	( <sup>2</sup> )	West North Central.....	12,345	4,274
West.....	41,483	46,429	East North Central.....	128,593	59,609	Minnesota.....	8,730	2,538
<b>OTHER PNEUMATIC TIRES AND SOLID TIRES (30113)</b>			Ohio.....	76,982	48,137	Missouri.....	2,235	( <sup>2</sup> )
United States, total....	186,792	185,455	Illinois.....	33,938	( <sup>2</sup> )	South Atlantic.....	26,429	16,176
Northeast.....	13,868	11,717	Michigan.....	9,835	( <sup>2</sup> )	Maryland.....	3,559	1,842
East North Central.....	93,135	110,393	West North Central.....	6,777	3,154	Virginia.....	8,087	3,650
West North Central.....	40,661	28,494	South.....	30,306	19,134	Georgia.....	3,770	2,300
South.....	35,678	33,124	West.....	46,777	29,336	Florida.....	26,429	( <sup>2</sup> )
Tennessee.....	2,973	4,860	<b>SPONGE AND FOAM RUBBER GOODS (30693)</b>			East South Central.....	15,862	6,152
West.....	3,450	1,727	United States, total....	226,433	200,751	West South Central.....	18,436	7,751
<b>ALL INNER TUBERS (30114)</b>			New England.....	60,792	59,276	Mountain.....	9,579	72,289
United States, total....	1963 <sup>1</sup>		Middle Atlantic.....	30,798	34,780	Pacific.....	85,724	
Northeast.....	95,065		New York.....	2,730	16,486	California.....	82,195	64,450
North Central.....	17,439		New Jersey.....	9,516	9,511	<b>RUBBER HEELS AND SOLES (30696)</b>		
South and West.....	31,609		Pennsylvania.....	18,552	8,783	United States, total....	136,213	134,856
South.....	46,017		North Central.....	90,096	67,970	Northeast.....	74,520	81,458
<b>TREAD RUBBER, TIRE SUNDRIES, AND REPAIR MATERIALS (30115)</b>			Ohio.....	60,143	43,880	Massachusetts.....	44,418	47,330
United States, total....	192,531	180,906	Indiana.....	15,014	( <sup>2</sup> )	Rhode Island.....	5,235	3,899
New England.....	9,067	13,569	Illinois.....	7,528	3,855	North Central.....	19,136	15,542
Middle Atlantic.....	22,176	19,128	South.....	19,867	14,703	Ohio.....	8,495	7,218
Pennsylvania.....	18,397	17,255	Georgia.....	1,991	( <sup>2</sup> )	South and West.....	42,557	37,856
East North Central.....	51,609	58,676	West.....	24,880	24,022	Maryland.....	15,664	18,320
Ohio.....	39,812	44,904	<b>RUBBER FLOOR AND WALL COVERING (30694)</b>			<b>DRUGGIST AND MEDICAL SUNDRIES (30697)</b>		
West North Central.....	10,272	6,512	United States, total....	93,238	99,376	United States, total....	79,232	56,953
Iowa.....	7,723	( <sup>2</sup> )	New England.....	8,636	20,696	Northeast.....	36,984	28,040
South Atlantic.....	22,566	41,408	Middle Atlantic.....	12,331		New Jersey.....	16,923	11,594
East South Central.....	19,441		East North Central.....	52,698	54,351	East North Central.....	32,920	( <sup>2</sup> )
West South Central.....	17,966	9,726	Ohio.....	42,114	38,328	South and West.....	9,328	5,791
Texas.....	8,489		South.....	10,327	13,254	<b>OTHER RUBBER GOODS, N.E.C. (30698)</b>		
West.....	39,434	41,613	Alabama.....	5,517	( <sup>2</sup> )	United States, total....	450,956	392,308
California.....	33,768	30,802	West.....	9,246	11,075	New England.....	109,194	106,726
						Massachusetts.....	72,464	70,196
						Rhode Island.....	16,722	15,425
						Connecticut.....	17,439	19,944

See footnotes at end of table.

TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments
OTHER RUBBER GOODS, N.E.C. (30698)--Continued	1963 <sup>1</sup>	1958	FOAMED PLASTICS PRODUCTS (30792)--Continued	1963 <sup>1</sup>	INDUSTRIAL PLASTICS PRODUCTS (30795)	1963 <sup>1</sup>
Middle Atlantic.....	79,586	66,420	East North Central.....	101,935	United States, total...	832,761
New York.....	24,735	18,162	Ohio.....	42,010	New England.....	83,246
New Jersey.....	29,691	30,407	Indiana.....	24,390	Massachusetts.....	45,529
Pennsylvania.....	25,160	17,851	Michigan.....	20,575	Rhode Island.....	6,525
East North Central.....	146,392	140,962	West North Central.....	24,480	Connecticut.....	16,762
Ohio.....	104,199	97,186	South Atlantic.....	38,140	Middle Atlantic.....	200,040
Indiana.....	3,015	9,795	Virginia.....	16,880	New York.....	76,428
Illinois.....	16,142	17,863	North Carolina.....	17,560	New Jersey.....	62,839
Michigan.....	18,263	11,775	East South Central.....	9,899	Pennsylvania.....	60,773
Wisconsin.....	4,773	4,343	West South Central.....	5,321	East North Central.....	389,107
West North Central.....	13,346	9,345	Texas.....	3,182	Ohio.....	114,132
Missouri.....	4,546	( <sup>2</sup> )	West.....	21,861	Indiana.....	58,361
South Atlantic.....	49,069	30,705	California.....	20,156	Illinois.....	109,436
North Carolina.....	5,180	7,172	LAMINATED SHEETS, RODS, AND TUBES (30793)		Michigan.....	87,898
Georgia.....	29,176	14,675	United States, total...	244,138	Wisconsin.....	19,280
East South Central.....	16,703	10,653	New England.....	27,912	West North Central.....	30,894
Tennessee.....	13,423	( <sup>2</sup> )	Middle Atlantic.....	32,788	Minnesota.....	14,389
West South Central.....	3,686	3,185	New York.....	8,010	Missouri.....	9,216
West.....	32,980	24,312	New Jersey.....	11,389	Kansas.....	3,893
UNSUPPORTED FILM, SHEETS, SHEETING, RODS, TUBES AND OTHER STOCK SHAPES (28211 AND 30791)	1963 <sup>1</sup>		Pennsylvania.....	13,389	South Atlantic.....	29,903
United States, total....		688,090	East North Central.....	120,502	Maryland.....	2,302
New England.....		74,253	Illinois.....	10,644	Virginia.....	7,345
Massachusetts.....		41,580	Wisconsin.....	18,763	North Carolina.....	3,588
Connecticut.....		21,355	West North Central.....	2,032	South Carolina.....	3,054
Middle Atlantic.....		250,710	South.....	50,596	Florida.....	3,665
New York.....		80,082	West.....	10,308	East South Central.....	9,660
New Jersey.....		114,705	California.....	10,110	Tennessee.....	4,522
Pennsylvania.....		55,923	PACKAGING AND SHIPPING CONTAINERS, PLASTICS (30794)		Mississippi.....	1,764
East North Central.....		176,107	United States, total...	441,841	West South Central.....	9,837
Ohio.....		67,860	New England.....	53,626	Texas.....	6,011
Indiana.....		22,588	Massachusetts.....	31,793	West.....	80,074
Illinois.....		39,539	Rhode Island.....	3,343	California.....	78,324
Michigan.....		36,256	Connecticut.....	15,083	CONSTRUCTION PLASTICS PRODUCTS (30796)	
Wisconsin.....		9,864	Middle Atlantic.....	131,583	United States, total...	283,832
West North Central.....		10,864	New York.....	43,564	New England.....	8,945
Minnesota.....		6,427	New Jersey.....	66,993	Massachusetts.....	4,308
Missouri.....		3,346	Pennsylvania.....	21,026	Middle Atlantic.....	48,326
South Atlantic.....		73,492	East North Central.....	148,647	New York.....	10,865
Delaware.....		8,720	Ohio.....	26,234	New Jersey.....	32,473
Virginia.....		20,993	Indiana.....	18,574	Pennsylvania.....	4,988
North Carolina.....		3,994	Illinois.....	94,000	East North Central.....	67,020
South Carolina.....		30,813	Michigan.....	6,114	Ohio.....	37,572
Florida.....		1,511	Wisconsin.....	3,725	Indiana.....	13,557
East South Central.....		52,215	West North Central.....	20,113	Illinois.....	6,384
West South Central.....		20,980	Minnesota.....	1,710	Michigan.....	4,423
West.....		29,469	Missouri.....	16,082	Wisconsin.....	5,084
Washington.....		1,496	South Atlantic.....	37,280	West North Central.....	29,964
California.....		27,359	Maryland.....	12,212	Missouri.....	5,523
FOAMED PLASTICS PRODUCTS (30792)			Georgia.....	3,823	South Atlantic.....	15,842
United States, total....		261,210	East South Central.....	14,500	Virginia.....	2,088
New England.....		15,358	West South Central.....	4,751	North Carolina.....	3,888
Massachusetts.....		6,909	Mountain.....	1,909	Florida.....	6,276
Middle Atlantic.....		44,216	Pacific.....	29,432	East South Central.....	48,874
New York.....		7,383	California.....	29,084	West South Central.....	17,884
New Jersey.....		24,946			Oklahoma.....	4,654
Pennsylvania.....		11,887			Texas.....	9,914

See footnotes at end of table.



TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued

Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments
PLASTICS DINNERWARE, TABLEWARE, AND KITCHENWARE(30797)	1963 <sup>1</sup>	CONSUMER AND COMMERCIAL PLASTICS PRODUCTS, N.E.C. (30798)	1963 <sup>1</sup>	CONSUMER AND COMMERCIAL PLASTICS PRODUCTS, N.E.C. (30798)--Continued	1963 <sup>1</sup>
United States, total....	147,580	United States, total..	457,064	West North Central.....	20,508
New England.....	43,968	New England.....	84,201	Minnesota.....	4,522
Middle Atlantic.....	18,450	Maine.....	5,462	Iowa.....	3,163
New York.....	7,223	New Hampshire.....	6,328	Missouri.....	11,324
New Jersey.....	7,835	Vermont.....	1,224	South Atlantic.....	21,499
Pennsylvania.....	3,392	Massachusetts.....	56,235	Maryland.....	4,991
East North Central.....	40,664	Rhode Island.....	7,195	Virginia.....	1,784
Ohio.....	13,397	Connecticut.....	7,757	North Carolina.....	5,596
Illinois.....	16,576	Middle Atlantic.....	136,437	Florida.....	3,033
Michigan.....	3,364	New York.....	59,529	East South Central.....	9,572
West North Central.....	8,659	New Jersey.....	43,670	Tennessee.....	6,648
South.....	21,664	Pennsylvania.....	33,238	West South Central.....	12,079
West.....	14,175	East North Central.....	127,473	Texas.....	9,995
California.....	14,074	Ohio.....	48,648	Mountain.....	2,200
		Indiana.....	6,950	Colorado.....	1,299
		Illinois.....	51,437	Pacific.....	43,095
		Michigan.....	14,034	Washington.....	1,133
		Wisconsin.....	6,404	California.....	41,268

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million reported. n.e.c. Not elsewhere classified.

<sup>1</sup>For the specified product classes, shipments of \$1 million or more were reported for the States listed, but the exact figures are withheld to avoid disclosure of individual company figures: 30111, Massachusetts, Connecticut, New York, Pennsylvania, Indiana, Illinois, Michigan, Wisconsin, Iowa, Kansas, Maryland, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Oklahoma, Texas, Colorado, and California; 30112, Massachusetts, Connecticut, New York, Indiana, Michigan, Wisconsin, Iowa, Kansas, Maryland, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Oklahoma, Texas, Colorado, and California; 30113, Maine, Massachusetts, Pennsylvania, Ohio, Indiana, Michigan, Wisconsin, Iowa, Kansas, Maryland, Georgia, Alabama, Oklahoma, Texas, and California; 30114, Massachusetts, Pennsylvania, Ohio, Indiana, Missouri, Maryland, Tennessee, Alabama, Mississippi, Oklahoma, and California; 30115, Massachusetts, Rhode Island, Connecticut, New Jersey, Indiana, Illinois, Michigan, Kansas, Maryland, South Carolina, Georgia, Tennessee, Alabama, Mississippi, Arkansas, Oklahoma, Colorado, Washington, and Oregon; 30210, New Hampshire, Rhode Island, Connecticut, New Jersey, Indiana, Illinois, Wisconsin, Missouri, Maryland, North Carolina, Florida, Tennessee, and California; 30310, Connecticut, New York, Illinois, Tennessee, and Mississippi; 30691, Massachusetts, New York, Pennsylvania, Indiana, Minnesota, Missouri, Nebraska, North Carolina, Colorado, Utah, and California; 30692, Massachusetts, Connecticut, Indiana, Minnesota, Nebraska, Kansas, Delaware, Virginia, North Carolina, Georgia, Texas, Colorado, Utah, and California; 30693, Massachusetts, Rhode Island, Connecticut, Iowa, Virginia, North Carolina, and Tennessee; 30694, Massachusetts, Rhode Island, New Jersey, Pennsylvania, Indiana, Michigan, Tennessee, Texas, and California; 30695, New Hampshire, Rhode Island, West Virginia, North Carolina, South Carolina, Kentucky, Tennessee, Alabama, Arkansas, Texas, Colorado, Utah, and Oregon; 30696, New Hampshire, Vermont, New York, New Jersey, Michigan, Virginia, West Virginia, Tennessee, Mississippi, Arkansas, and Texas; 30697, Rhode Island, Connecticut, Pennsylvania, Delaware, and Maryland; 30698, Vermont, Minnesota, Kansas, Virginia, South Carolina, Kentucky, Mississippi, Arkansas, New Mexico, and California; 30791 and 28211, Rhode Island, Georgia, Kentucky, Tennessee, Alabama, Mississippi, Louisiana, and Texas; 30792, New Hampshire, Connecticut, Illinois, Iowa, Missouri, Maryland, Tennessee, Mississippi, and Arkansas; 30793, Maine, Massachusetts, Connecticut, Ohio, Michigan, Minnesota, Iowa, Delaware, Maryland, South Carolina, Georgia, Mississippi, and Texas; 30794, New Hampshire, Nebraska, Delaware, Virginia, West Virginia, North Carolina, South Carolina, Tennessee, Texas, New Mexico, and Utah; 30795, New Hampshire, Vermont, Iowa, Delaware, Georgia, Kentucky, Arkansas, and Oklahoma; 30796, Maine, New Hampshire, Minnesota, Kansas, Delaware, Georgia, Kentucky, Tennessee, Alabama, Arkansas, and Louisiana; 30797, Vermont, Massachusetts, Rhode Island, Indiana, Wisconsin, Minnesota, Missouri, Mississippi, Louisiana, and Texas; 30798, Delaware, South Carolina, Alabama, and Arkansas.

<sup>2</sup>Shipments of \$1 million or more were reported, but exact figures are withheld to avoid disclosure of individual company figures.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3011.—TIRES AND INNER TUBES			
	Materials, containers, and supplies, total.....	.....	(X)	1,324,820	(X)	1,158,324
	Natural Rubber:					
086113	Latex (dry solids content).....	Long tons.....	1,739	1,156	12,750	10,311
086115	Dry.....	...do.....	296,274	169,047	303,397	177,108
	Synthetic Rubber:					
282203	Butadiene-styrene type.....	...do.....	<sup>1</sup> 643,431	272,585	<sup>2</sup> 500,198	234,444
282204	Butyl type.....	...do.....	48,445	28,064	43,145	22,845
282205	Neoprene.....	...do.....	7,388	6,814	5,105	4,733
282206	N-type (butadiene-acrylonitrile).....	...do.....	<sup>1</sup> 2,404	1,155	<sup>2</sup> 1,734	1,037
282207	Stereo elastomers.....	...do.....	90,113	51,046	} <sup>2</sup> 2,070	1,731
282208	Polyurethane.....	...do.....	59	172		
282209	Other elastomers.....	...do.....	1,924	1,419		
303101	Reclaimed rubber (excluding "mud" and crumb or ground scrap).....	...do.....	<sup>1</sup> 175,470	36,381	<sup>2</sup> 153,118	30,667
306980	Rubber compounds and mixtures purchased (dry rubber solid content).....	...do.....	28,485	12,962	(NA)	7,993
281833	Rubber processing chemicals.....	.....	(X)	49,123	( <sup>3</sup> )	( <sup>3</sup> )
281835	Plasticizers.....	1,000 pounds...	202,089	9,116	( <sup>3</sup> )	( <sup>3</sup> )
289501	Carbon black.....	...do.....	1,046,498	83,262	( <sup>3</sup> )	( <sup>3</sup> )
281600	Inorganic pigments.....	...do.....	218,271	16,632	( <sup>3</sup> )	( <sup>3</sup> )
282130	Thermoplastic resins including modified resins.....	...do.....	<sup>1</sup> 9,015	1,468	<sup>2</sup> 3,153	879
282140	Thermosetting resins.....	...do.....	4,350	1,992	307	207
	Tire cord and tire fabric:					
229601	Cotton cord.....	...do.....	943	754	5,688	5,482
229602	Rayon cord.....	...do.....	179,290	108,402	220,467	158,281
229603	Nylon cord.....	...do.....	192,009	210,922	92,244	139,366
229609	Chafer and other tire fabrics.....	...do.....	21,153	20,922	24,386	20,753
	Other fabrics:					
220311	Cotton.....	...do.....	(D)	(D)	9,089	6,007
220312	Rayon.....	...do.....	4,939	3,337	2,287	1,622
220313	Nylon.....	...do.....	3,385	3,153	3,517	5,173
220319	Other.....	...do.....	6,951	2,261	593	446
342956	Hose fittings and couplings.....	.....	(X)	1,821	( <sup>3</sup> )	( <sup>3</sup> )
331017	Steel wire.....	Short tons.....	68,373	25,962	( <sup>3</sup> )	( <sup>3</sup> )
970099	All other materials and components, parts, containers, and supplies, consumed.....	.....	(X)	191,467	(X)	325,259
973000	Materials, containers, supplies, n.s.k.....	.....	(X)	<sup>4</sup> 13,425	(X)	<sup>4</sup> 3,980
			INDUSTRY 3021.—RUBBER FOOTWEAR			
	Materials, containers, and supplies, total.....	.....	(X)	113,771	(X)	68,997
	Natural rubber:					
086113	Latex (dry solids content).....	Long tons.....	942	738	1,201	901
086115	Dry.....	...do.....	17,106	9,789	17,418	10,703
	Synthetic rubber:					
282203	Butadiene-styrene type.....	...do.....	11,913	5,856	6,365	3,577
282204	Butyl type.....	...do.....	24	15	225	114
282205	Neoprene.....	...do.....	243	214	284	238
282206	N-type (butadiene-acrylonitrile).....	...do.....	(D)	(D)	68	63
282207	Stereo elastomers.....	...do.....	1,080	589	-	-
282209	Other elastomers.....	...do.....	(D)	(D)	-	-
303101	Reclaimed rubber (excluding "mud" and crumb or ground scrap).....	...do.....	<sup>1</sup> 1,289	201	1,501	348
306980	Rubber compounds and mixtures purchased (dry rubber solids content).....	...do.....	3,957	4,177	1,742	2,961
281833	Rubber processing chemicals.....	.....	(X)	4,747	( <sup>3</sup> )	( <sup>3</sup> )
281835	Plasticizers.....	1,000 pounds...	3,877	775	( <sup>3</sup> )	( <sup>3</sup> )
289501	Carbon black.....	...do.....	2,003	180	( <sup>3</sup> )	( <sup>3</sup> )
281600	Inorganic pigments.....	...do.....	9,537	586	( <sup>3</sup> )	( <sup>3</sup> )
282130	Thermoplastic resins including modified resins.....	...do.....	2,350	454	2,232	1,110
	Other fabrics:					
220311	Cotton.....	...do.....	27,596	27,039	13,403	12,593
220312	Rayon.....	...do.....	-	-	119	165
220313	Nylon.....	...do.....	525	673	118	234
220319	Other.....	...do.....	1,329	2,469	1,172	1,540
970099	All other materials and components, parts, containers, and supplies.....	.....	(X)	41,411	(X)	30,012
973000	Materials, containers, supplies, n.s.k.....	.....	(X)	<sup>4</sup> 13,858	(X)	<sup>4</sup> 4,438

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3031 and 3069.—RECLAIMED RUBBER, AND RUBBER PRODUCTS, N.E.C.			
	Materials, containers, and supplies, total.....		(X)	<sup>5</sup> 1,025,257	(X)	<sup>6</sup> 765,081
	Natural rubber:					
086113	Latex (dry solids contents).....	Long tons.....	37,920	29,750	54,036	44,181
086115	Dry.....	..do.....	78,244	49,318	75,313	46,784
	Synthetic rubber:					
282203	Butadiene-styrene type.....	..do.....	239,967	116,798	161,624	84,580
282204	Butyl type.....	..do.....	16,663	9,442	7,145	3,864
282205	Neoprene.....	..do.....	53,042	49,172	37,733	34,218
282206	N-type (butadiene-acrylonitrile).....	..do.....	25,462	25,745	10,504	12,137
282207	Stereo elastomers.....	..do.....	6,717	3,874	4,828	7,132
282208	Polyurethane.....	..do.....	604	1,308		
282209	Other elastomers.....	..do.....	11,327	15,433		
303101	Reclaimed rubber (excluding "mud" and crumb or ground scrap).....	..do.....	<sup>1</sup> 81,493	12,837	<sup>2</sup> 93,214	14,370
306980	Rubber compounds and mixtures purchased.....	..do.....	26,592	18,443	(NA)	15,900
281833	Rubber processing chemicals.....	..do.....	(X)	45,947	( <sup>3</sup> )	( <sup>3</sup> )
281835	Plasticizers.....	1,000 pounds....	159,396	21,374	( <sup>3</sup> )	( <sup>3</sup> )
289501	Carbon black.....	..do.....	235,919	18,559	( <sup>3</sup> )	( <sup>3</sup> )
281600	Inorganic pigments.....	..do.....	403,712	20,138	( <sup>3</sup> )	( <sup>3</sup> )
282130	Thermoplastic resins including modified resins.....	..do.....	139,712	29,734	72,793	23,877
282140	Thermosetting resins.....	..do.....	<sup>1</sup> 20,196	7,517	9,373	2,088
	Tire cord and tire fabric:					
229601	Cotton cord.....	..do.....	804	370	1,398	1,067
229602	Rayon cord.....	..do.....	2,376	1,603	2,901	1,905
229603	Nylon cord.....	..do.....	(D)	(D)	605	867
229609	Chafer and other tire fabrics.....	..do.....	1,146	838	531	496
	Other fabrics:					
220311	Cotton.....	..do.....	64,969	49,028	59,001	42,550
220312	Rayon.....	..do.....	17,511	9,164	7,560	5,435
220313	Nylon.....	..do.....	7,044	11,079	(NA)	5,230
220319	Other.....	..do.....	7,270	7,945	(NA)	12,963
342956	Hose fittings and couplings.....	..do.....	(X)	6,782	( <sup>3</sup> )	( <sup>3</sup> )
331017	Steel wire.....	Short tons.....	24,427	12,292	( <sup>3</sup> )	( <sup>3</sup> )
970099	All other materials, and components, parts, containers, and supplies consumed.....	..do.....	(X)	386,482	(X)	356,894
973000	Materials, containers, supplies, n.s.k.....	..do.....	(X)	<sup>4</sup> 64,285	(X)	<sup>4</sup> 48,543
			INDUSTRY 3079.—PLASTICS PRODUCTS, N.E.C.			
	Materials, containers, supplies, total.....		(X)	1,380,471	(X)	861,827
282130	Thermoplastic resins including modified resins.....	1,000 pounds....	2,143,520	503,286	824,331	284,657
282140	Thermosetting resins.....	..do.....	485,223	157,789	254,848	80,786
307911	Unsupported plastics film and sheeting.....	..do.....	(NA)	43,308	( <sup>3</sup> )	( <sup>3</sup> )
307912	Plastics rods, tubes, and other shapes.....	..do.....	(NA)	24,716	( <sup>3</sup> )	( <sup>3</sup> )
281835	Plasticizers.....	..do.....	90,027	17,913	( <sup>3</sup> )	( <sup>3</sup> )
322931	Glass fiber, roving, mats, etc.....	..do.....	38,426	19,591	( <sup>3</sup> )	( <sup>3</sup> )
220234	Cotton fabrics.....	1,000 lin. yds..	37,598	13,946	30,584	8,018
220239	Other textile fabrics.....	..do.....	(NA)	15,874	13,385	8,512
970099	All other materials, and components, parts, containers, and supplies consumed.....	..do.....	(X)	382,278	(X)	307,751
973000	Materials, containers, supplies, n.s.k.....	..do.....	(X)	<sup>4</sup> 201,770	(X)	<sup>4</sup> 172,103

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Included in these quantity figures are the following percentages which were produced and consumed in the same establishments, and for which no value is shown: industry 3011—Butadiene-styrene type, less than 1 percent; N-type, between 30 and 60 percent; reclaimed rubber, between 12 and 15 percent; thermoplastic resins, between 10 and 20 percent; industry 3021—Reclaimed rubber, between 25 and 50 percent; industries 3031 and 3069—Reclaimed rubber between 20 and 25 percent; thermosetting resins, between 3 and 5 percent.

<sup>2</sup>Included in these quantity figures are the following percentages which were produced and consumed in the same establishments, and for which no value is shown: industry 3011—Butadiene-styrene type, less than 2 percent; N-type, between 27 and 32 percent; other synthetic rubber, between 2 and 5 percent; reclaimed rubber, less than 10 percent; thermoplastic resins, between 40 and 45 percent; industries 3031 and 3069—Reclaimed rubber, between 25 and 30 percent.

<sup>3</sup>Not separately classified in 1958; included in code 970099.

<sup>4</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested, and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

<sup>5</sup>Includes \$17,190 thousand for industry 3031 and \$1,008,067 thousand for industry 3069.

<sup>6</sup>Includes \$14,923 thousand for industry 3031 and \$750,158 thousand for industry 3069.

**TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962**

Item	Tires and inner tubes (SIC 3011)	Rubber footwear (SIC 3021)	Reclaimed rubber (SIC 3031)	Rubber products, n.e.c. (SIC 3069)	Plastics products, n.e.c. (SIC 3079)
Total cost of purchased fuels and electric energy.....\$1,000..	34,585	3,001	3,012	38,092	48,271
Total cost of purchased fuels.....do....	14,371	1,000	841	15,495	13,771
Bituminous coal, lignite, and anthracite:					
Quantity.....1,000 short tons..	1,467	8	77	634	153
Cost.....\$1,000..	9,095	77	357	4,802	1,049
Coke and breeze:					
Quantity.....1,000 short tons..	-	-	-	-	2
Cost.....\$1,000..	-	-	-	-	69
Fuel oil (distillate and residual):					
Quantity.....1,000 barrels of 42 gallons..	303	284	(S)	1,810	1,405
Cost.....\$1,000..	892	733	(S)	5,280	4,606
Gas (natural, manufactured, still, blast furnace, and coke oven):					
Quantity.....million cu.ft..	13,070	253	349	8,871	8,504
Cost.....\$1,000..	4,239	134	124	4,213	5,031
Other fuels.....do....	145	56	245	1,200	3,016
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	2,165	138	257	1,761	2,369
Cost.....\$1,000..	20,214	2,001	2,171	22,597	34,500
Generated less sold.....million kw.-hrs..	605	(S)	(S)	87	(S)
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	1,171	82	127	1,118	1,052
Prime movers, total.....do....	236	5	18	90	53
Driving generators.....do....	193	2	17	46	14
Not driving generators.....do....	43	3	1	44	39
Electric motors, total.....do....	1,124	78	108	1,071	1,001
Driven by purchased energy.....do....	935	76	108	1,027	998
Driven by energy generated at establishment.....do....	189	2	(Z)	44	3
Aggregate horsepower per 100 production workers.....	1,733	338	7,475	1,154	853

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



**Table 7C. Rubber Consumed in the Rubber Products Industries,  
by Geographic Areas: 1963**

Geographic Area	Natural rubber		Synthetic rubber		Reclaimed rubber	
	Quantity (long tons)	Delivered cost (\$1,000)	Quantity (long tons)	Delivered cost (\$1,000)	Quantity (long tons)	Delivered cost (\$1,000)
United States, total.....	432,225	259,798	<sup>1</sup> 1,161,121	<sup>1</sup> 589,885	<sup>2</sup> 258,252	<sup>2</sup> 49,419
New England.....	50,660	33,857	108,689	62,437	18,123	2,898
New Hampshire.....	(D)	(D)	1,885	1,187	(D)	(D)
Massachusetts.....	24,671	17,337	58,903	34,389	12,100	1,501
Rhode Island.....	6,604	5,161	3,807	2,914	(D)	(D)
Connecticut.....	18,487	10,820	38,960	21,681	(D)	(D)
Middle Atlantic.....	43,152	26,286	122,692	66,606	26,471	6,175
New York.....	7,817	4,933	16,545	9,499	2,933	670
New Jersey.....	9,888	6,419	16,651	12,504	3,222	862
Pennsylvania.....	25,447	14,934	89,496	44,603	20,316	4,643
East North Central.....	175,638	103,793	408,236	205,972	105,963	19,994
Ohio.....	127,442	75,636	240,056	119,751	71,109	12,111
Indiana.....	13,204	7,725	51,160	26,697	17,383	2,988
Illinois.....	(D)	(D)	16,646	11,037	(D)	(D)
Michigan.....	(D)	(D)	74,688	36,080	10,969	3,105
Wisconsin.....	6,779	3,916	25,686	12,407	(D)	(D)
West North Central.....	35,612	20,612	87,192	42,167	23,278	5,357
Minnesota.....	(D)	(D)	1,348	1,215	(D)	(D)
Missouri.....	879	576	6,477	4,488	1,528	365
Nebraska.....	159	111	254	182	(D)	(D)
South Atlantic.....	22,635	14,118	82,505	41,952	7,467	1,684
Maryland.....	11,862	6,578	32,364	14,473	4,647	999
Virginia.....	1,359	995	3,893	3,207	(D)	(D)
North Carolina.....	978	600	8,200	4,783	(D)	(D)
Georgia.....	7,740	5,517	26,213	13,605	(D)	(D)
East South Central.....	48,105	28,132	165,228	78,656	35,575	6,486
Tennessee.....	23,452	13,867	59,688	29,222	12,742	3,355
Alabama.....	(D)	(D)	(D)	(D)	16,389	1,593
Mississippi.....	(D)	(D)	17,466	9,129	(D)	(D)
West South Central.....	26,269	15,207	68,067	32,119	14,228	3,126
West.....	30,154	17,793	118,512	59,976	27,147	3,699
California.....	23,923	13,845	96,417	47,945	15,889	3,528

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies, or valued at less than \$100,000.

<sup>1</sup>Includes less than 1 percent synthetic rubber produced and consumed in the same establishment. Value of this rubber is not reflected in the "delivered cost" column.

<sup>2</sup>Includes 43,642 long tons of reclaimed rubber produced and consumed in the same establishment. Of this total, 6,079 long tons were in New England and 18,161 tons in East North Central. Value of this reclaimed rubber is not reflected in the "delivered cost" column.

TABLE 7D. Rubber Consumed in the Rubber Products Industries, by Type of Rubber and Class of Product: 1963 and 1958

(Long tons)

Code	Class of product	1963			1958		
		Natural rubber	Synthetic rubber	Reclaimed rubber	Natural rubber	Synthetic rubber	Reclaimed rubber
	Total rubber reported consumed by rubber products industries (3011-3069).....	432,225	1,161,121	258,252	464,115	781,028	247,833
	Tires and tire products:						
161	Passenger car tires.....	106,718	462,698	103,378	99,813	315,097	91,781
162	Truck and bus tires (including off-the-highway)..	152,140	123,769	20,797	164,178	66,312	20,939
163	All other pneumatic and solid tires.....	15,238	38,912	34,917	16,896	33,252	21,883
164	Inner tubes.....	2,413	37,146	4,302	3,077	39,418	5,988
165	Tread rubber, tire sundries and repair materials.	16,215	130,738	6,658	18,340	103,160	7,730
	Mechanical rubber goods:						
166	Flooring (mats, matting, tile, etc.).....	1,451	26,366	26,841	3,641	15,064	40,389
167	Belting, hoses, and packing.....	12,725	56,996	19,938	15,543	31,137	15,161
168	Foam and sponge rubber.....	18,869	66,525	793	52,969	29,775	943
169	Other, including flotation equipment, tank tracks, etc.....	34,896	105,450	20,932	23,819	64,651	24,434
170	Tread and cements.....	13,036	7,365	2,452	14,751	10,876	1,906
171	Footwear.....	20,050	15,169	1,257	18,995	5,013	1,410
172	Shoe products (heels, soles and findings).....	2,696	49,821	6,067	8,038	46,778	9,369
173	Druggist and medical sundries.....	5,601	1,333	15	4,259	736	5
174	Compounds and mixtures (produced for sale as such) <sup>1</sup>	10,190	18,214	6,915	5,841	4,318	1,659
175	All other rubber products, including proofed goods.	19,984	20,619	2,990	13,955	15,441	4,236

<sup>1</sup>Respondents were requested to include in this table the rubber reported in table 7A under code 306980. Since this involves some duplication of rubber reported above under code 174, the quantities in code 174 were reduced so that total rubber consumed would equal the totals reported in tables 7A for codes 086113-15, 282203-09, and 303101.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3011-	TIRES AND INNER TUBES										
	Entire industry.....	155	85,259	621,741	66,268	131,783	460,145	1,321,712	1,623,090	2,949,673	112,783
	Establishments with—										
	90% or more specialization..	130	65,989	484,645	51,605	103,238	363,880	1,070,483	1,330,421	2,408,257	93,347
30111	Passenger car and motorcycle pneumatic tires (primary product class of estab.).....	39	69,654	518,553	53,613	107,205	384,289	1,068,161	1,312,643	2,373,623	91,853
	Establishments with—										
	90% or more specialization....	5	2,463	14,874	1,877	3,482	10,665	42,350	55,035	86,767	(D)
	75-89% specialization.....	7	5,849	42,909	4,164	8,412	29,632	88,316	133,776	235,362	(D)
30113	Other pneumatic tires and solid tires (primary product class of estab.).....	18	4,473	29,068	3,392	6,264	19,730	45,367	45,930	92,191	1,802
	Establishments with—										
	90% or more specialization....	9	256	1,193	210	464	754	3,119	3,117	6,014	146
	75-89% specialization.....	3	668	3,997	542	1,038	2,976	7,231	7,916	15,143	(D)
30115	Tread rubber, tire sundries, and repair materials (primary product class of estab.).....	82	2,259	13,582	1,726	3,571	8,351	35,043	49,341	84,341	1,360
	Establishments with—										
	90% or more specialization....	74	1,817	11,071	1,405	2,917	6,909	28,960	41,002	70,223	1,147
3069-	RUBBER PRODUCTS, N.E.C.										
	Entire industry.....	1,173	132,228	760,761	100,581	203,392	516,065	1,427,022	1,171,331	2,597,999	64,955
	Establishments with—										
	90% or more specialization..	968	78,336	435,737	61,246	124,937	302,604	862,804	673,632	1,532,225	40,219
	75-89% specialization.....	77	25,416	156,704	17,739	35,037	97,330	251,328	253,524	508,251	11,216
30691	Rubber belts and belting (primary product class of estab.).....	25	15,586	103,718	9,818	18,428	58,223	173,934	136,343	310,664	7,141
	Establishments with—										
	90% or more specialization....	14	1,375	8,299	1,024	2,118	5,542	22,607	11,660	33,674	448
30692	Rubber hose and tubing (primary product class of estab.).....	52	12,667	77,909	9,738	20,111	56,040	153,216	124,248	278,630	6,873
	Establishments with—										
	90% or more specialization....	29	2,635	13,997	2,135	4,370	10,400	32,821	33,169	66,545	1,475
30693	Sponge and foam rubber goods (primary product class of estab.).....	83	12,027	77,636	9,304	19,325	55,836	152,872	139,623	293,534	7,721
	Establishments with—										
	90% or more specialization....	67	3,529	20,312	2,642	5,359	13,449	38,975	42,737	81,814	3,111
	75-89% specialization.....	6	471	3,276	373	803	2,237	9,081	11,379	20,392	425
30694	Rubber floor and wall covering (primary product class of estab.).....	26	3,056	16,496	2,458	5,104	11,790	34,469	27,599	60,410	2,399
	Establishments with—										
	90% or more specialization....	17	821	4,273	672	1,393	2,979	7,478	5,340	12,377	617
30695	Mechanical rubber goods, n.e.c. (primary product class of estab.).....	379	52,781	302,605	41,656	85,413	215,037	528,192	375,959	905,355	22,856
	Establishments with—										
	90% or more specialization....	262	25,186	139,567	20,153	41,517	98,957	241,890	156,000	396,970	12,019
	75-89% specialization.....	49	9,326	54,681	7,154	14,671	38,285	100,613	78,952	179,871	4,549
30696	Rubber heels and soles (primary product class of estab.).....	29	7,660	34,875	6,362	12,757	26,705	68,786	70,652	139,202	3,239
	Establishments with—										
	90% or more specialization....	17	4,714	21,956	3,910	7,918	16,724	46,250	44,243	89,922	1,710
	75-89% specialization.....	5	509	2,451	434	916	1,811	3,798	3,870	7,788	459
30697	Druggist and medical sundries (primary product class of estab.).....	30	5,619	28,958	4,324	8,474	19,374	61,383	33,151	94,488	2,187
	Establishments with—										
	90% or more specialization....	21	2,424	12,627	1,971	3,965	8,595	29,498	14,857	44,539	1,056

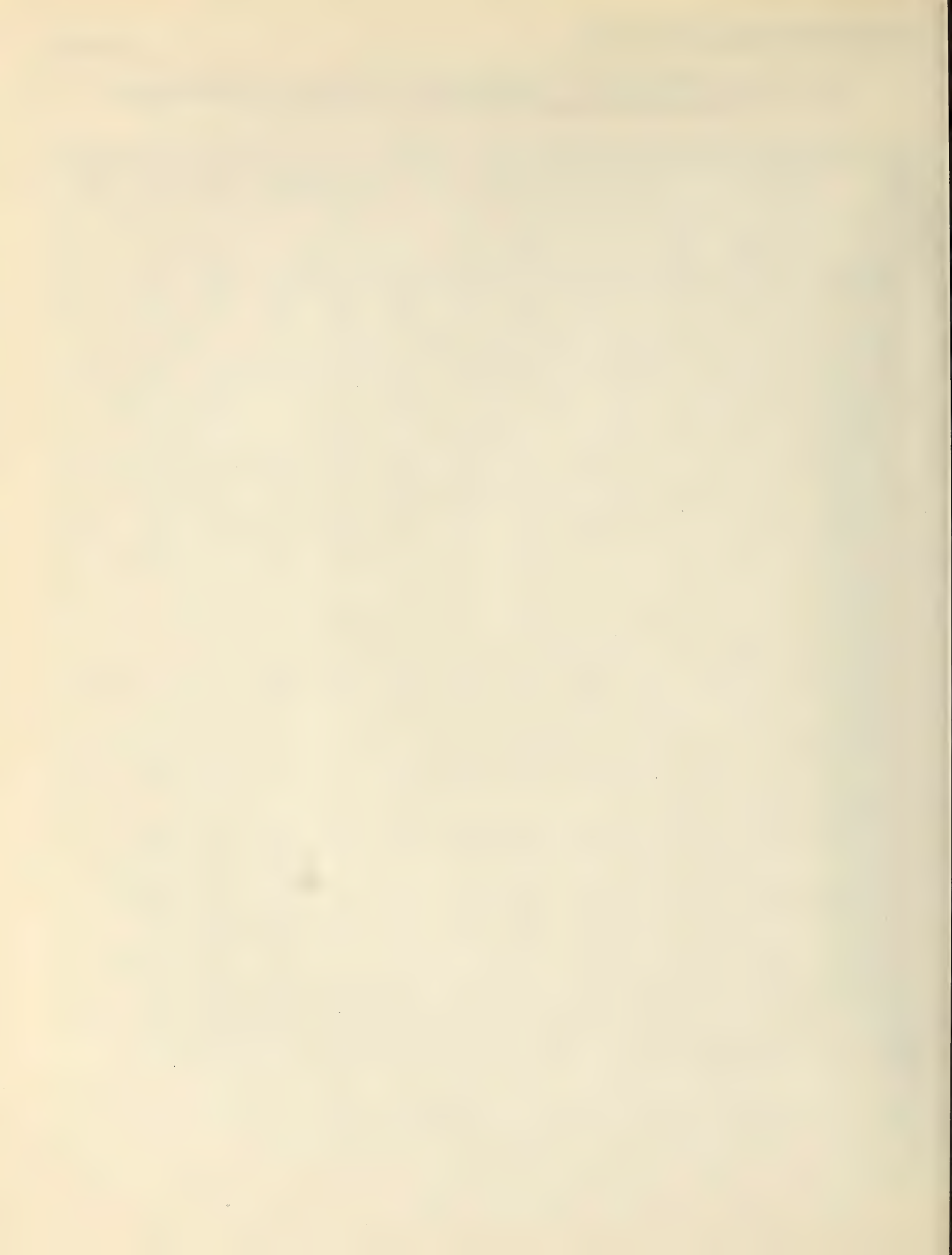
See footnotes at end of table.

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
	RUBBER PRODUCTS, N.E.C.—Continued										
30698	Other rubber goods, n.e.c. (primary product class of estab.).....	301	19,817	105,702	14,464	28,930	63,864	224,302	241,770	463,901	9,673
	Establishments with—										
	90% or more specialization....	216	7,251	37,143	5,514	11,206	22,278	90,989	110,182	201,046	3,168
	75-89% specialization.....	29	3,891	19,378	2,802	5,259	11,636	42,647	44,117	85,644	1,104
3079-	PLASTICS PRODUCTS, N.E.C.										
	Entire industry.....	4,334	166,315	837,572	134,327	271,976	579,990	1,660,882	1,522,899	3,165,440	157,516
	Establishments with—										
	90% or more specialization..	3,810	125,045	621,669	101,001	204,387	431,266	1,261,286	1,162,162	2,408,808	120,522
	75-89% specialization.....	201	16,088	80,946	13,103	26,331	55,912	157,977	172,240	291,349	11,863
30791	Unsupported plastics film, sheets, sheeting, rods, tubes, and other stock shapes, from purchased resin materials (primary product class of estab.).....	346	16,639	98,384	13,162	28,546	67,685	205,293	249,580	454,597	27,505
	Establishments with—										
	90% or more specialization....	281	10,095	59,990	7,839	17,187	40,245	134,516	155,471	289,460	14,756
	75-89% specialization.....	19	1,691	9,093	1,418	3,075	6,903	15,418	26,231	40,892	2,843
30792	Foam plastics products (primary product class of estab.).....	206	9,460	47,883	7,642	15,385	34,296	105,155	140,206	243,142	8,094
	Establishments with—										
	90% or more specialization....	166	4,701	20,841	3,760	7,487	13,994	50,555	80,065	129,449	3,641
	75-89% specialization.....	7	258	1,234	190	363	821	2,588	3,661	6,255	254
30793	Laminated sheets, rods, and tubes (primary product class of estab.).....	147	11,404	67,102	8,511	17,887	42,724	141,046	130,796	269,489	9,639
	Establishments with—										
	90% or more specialization....	106	6,614	40,557	5,179	10,964	27,424	94,234	81,621	175,121	3,372
30794	Packaging and shipping containers, plastics (primary product class of estab.).....	321	25,576	123,620	20,776	41,113	86,895	239,060	191,684	428,651	34,620
	Establishments with—										
	90% or more specialization....	226	18,651	90,281	14,960	29,571	63,009	180,199	145,928	324,446	24,583
	75-89% specialization.....	30	1,688	8,565	1,427	2,857	6,495	16,324	11,400	27,660	4,074
30795	Industrial plastics products (primary product class of estab.).....	945	50,212	259,249	41,340	84,782	183,102	460,093	384,927	840,695	31,400
	Establishments with—										
	90% or more specialization....	624	25,806	133,142	21,284	43,656	93,015	241,474	197,716	437,842	16,229
	75-89% specialization.....	126	8,665	42,695	7,283	14,836	31,094	76,933	66,712	142,649	4,980
30796	Construction plastics products (primary product class of estab.).....	193	9,995	53,544	7,446	15,382	34,132	131,538	120,968	249,383	9,399
	Establishments with—										
	90% or more specialization....	155	6,448	35,351	4,678	9,680	22,247	91,845	85,200	174,085	6,129
	75-89% specialization.....	11	1,434	7,047	1,088	2,242	4,530	17,277	14,152	31,341	1,229
30797	Plastics dinnerware, tableware, and kitchenware (primary product class of estab.).....	90	7,475	33,747	6,059	11,512	23,265	79,882	66,812	146,251	7,160
	Establishments with—										
	90% or more specialization....	54	3,988	16,337	3,274	6,187	11,506	45,385	43,224	87,304	4,333
	75-89% specialization.....	10	1,007	5,746	808	1,667	3,921	10,555	6,932	17,745	464
30798	Consumer and commercial plastics products, n.e.c. (primary product class of estab.).....	866	24,700	111,926	20,338	40,083	76,537	214,091	175,182	386,586	17,457
	Establishments with—										
	90% or more specialization....	648	13,096	56,337	10,814	21,490	38,742	106,378	91,153	196,370	8,708
	75-89% specialization.....	83	4,006	18,714	3,269	6,483	12,619	38,140	28,706	66,130	3,655

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.





## Leather and Leather Products

31A Tanning; shoes; industrial leather goods

31B Leather gloves; luggage; and misc. leather goods

This major group includes establishments engaged in tanning, currying, and finishing hides and skins; and establishments manufacturing finished leather and artificial leather products and some similar products made of other materials. Leather "converters" who assign hides and skins to contractors for tanning and finishing are included in Industry 3111, Leather Tanning and Finishing.



# LEATHER AND LEATHER PRODUCTS: MAJOR GROUP 31

Value Added by Manufacture by State: 1963

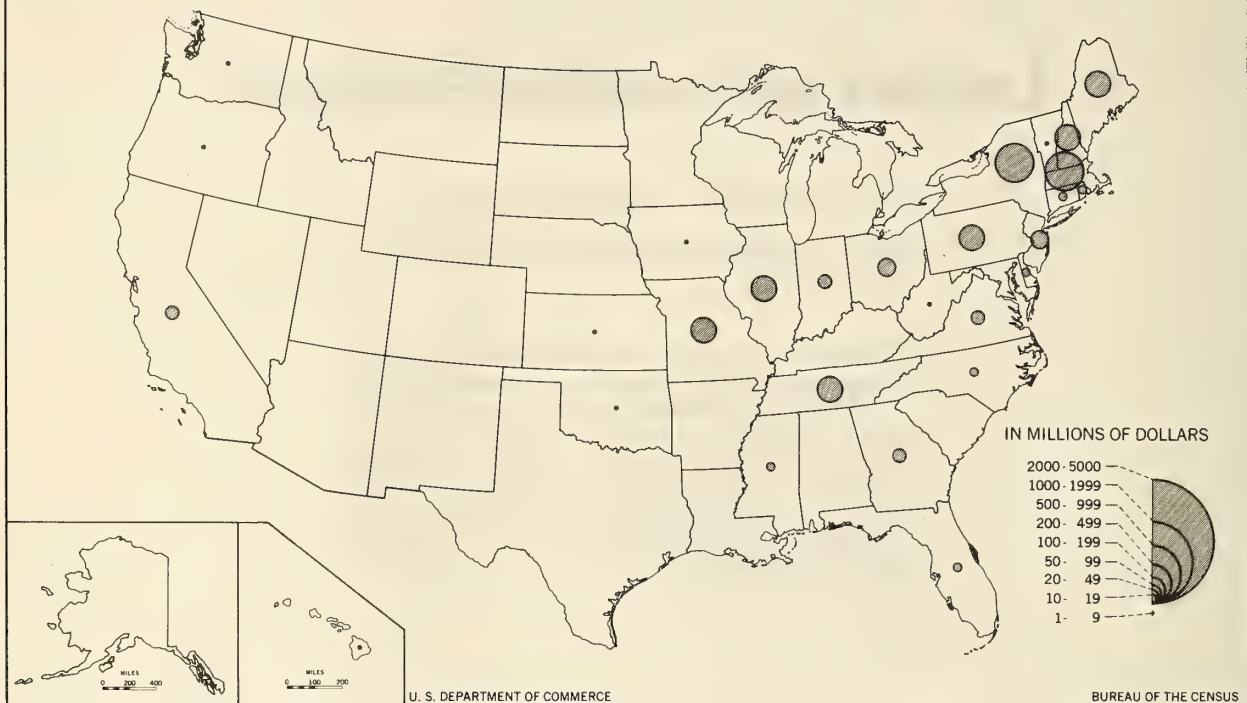


TABLE 1. General Statistics: 1963 and Earlier Years

Year and item	Establishments		All employees <sup>1</sup>		Production workers			Value added by manufacture, adjusted <sup>2</sup>	Cost of materials <sup>3</sup>	Value of shipments <sup>3</sup>	Capital expenditures, new <sup>4</sup>
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
ALL MANUFACTURING ESTABLISHMENTS, TOTAL:											
1963 . . . . .	4 120	2 114	335 071	1 278 064	292 339	543 094	982 096	2 078 572	2 127 776	4 209 614	34 566
1958 . . . . .	4 617	2 259	358 484	1 192 168	310 145	566 033	912 256	1 898 007	(NA)	3 896 165	31 825
1954 . . . . .	(NA)	(NA)	365 334	1 065 196	321 161	586 857	833 694	1 640 804	(NA)	(NA)	28 053
ADMINISTRATIVE AND AUXILIARY UNITS:											
1963 . . . . .	73	41	7 582	50 240	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1958 . . . . .	68	32	9 319	46 203	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1954 . . . . .	(NA)	(NA)	8 756	37 882	(X)	(X)	(X)	(X)	(X)	(X)	(X)
OPERATING MANUFACTURING ESTABLISHMENTS:											
1963 . . . . .	4 047	2 073	327 489	1 227 824	292 339	543 094	982 096	2 078 572	2 127 776	4 209 614	34 566
1958 . . . . .	4 549	2 227	349 165	1 145 965	310 145	566 033	912 256	1 898 007	(NA)	3 896 165	31 825
1954 . . . . .	4 845	2 267	356 578	1 027 314	321 161	586 857	833 694	1 640 804	(NA)	(NA)	28 053
OPERATING MANUFACTURING ESTABLISHMENTS:											
1962 . . . . .	(NA)	(NA)	345 556	1 255 465	307 561	569 147	1 000 341	2 101 619	2 192 971	4 307 408	35 735
1961 . . . . .	(NA)	(NA)	350 680	1 224 517	311 664	567 950	969 566	2 040 786	2 135 975	4 186 276	34 743
1960 . . . . .	(NA)	(NA)	357 682	1 227 298	317 267	581 528	971 626	2 043 601	(NA)	(NA)	34 677
1959 . . . . .	(NA)	(NA)	363 340	1 246 215	323 665	601 045	992 570	2 120 655	(NA)	(NA)	34 102
1957 . . . . .	(NA)	(NA)	361 945	1 156 661	322 788	589 507	938 535	1 891 636	(NA)	(NA)	31 733
1956 . . . . .	(NA)	(NA)	366 821	1 149 229	328 782	606 690	938 564	1 881 647	(NA)	(NA)	36 813
1955 . . . . .	(NA)	(NA)	366 204	1 102 212	329 533	613 385	895 596	1 778 079	(NA)	(NA)	37 433
1953 . . . . .	(NA)	(NA)	375 354	1 098 806	338 355	629 498	896 502	1 711 066	(NA)	(NA)	24 678
1952 . . . . .	5 012	(NA)	361 373	1 015 535	324 008	605 356	834 103	1 597 377	(NA)	(NA)	18 745
1951 . . . . .	4 883	(NA)	353 770	944 582	317 604	575 635	767 982	1 475 451	(NA)	(NA)	22 385
1950 . . . . .	4 903	(NA)	385 123	949 271	341 733	629 260	773 381	1 498 811	(NA)	(NA)	25 791
1949 . . . . .	(NA)	(NA)	375 246	891 734	337 483	609 556	721 888	1 386 550	(NA)	(NA)	29 618
1947 . . . . .	5 308	(NA)	383 264	873 746	348 615	677 001	725 308	1 533 028	(NA)	(NA)	31 301
1939 . . . . .	3 505	(NA)	(NA)	(NA)	327 189	(NA)	293 922	582 915	(NA)	(NA)	(NA)
1937 . . . . .	3 249	(NA)	(NA)	(NA)	328 551	(NA)	308 027	583 780	(NA)	(NA)	(NA)
1935 . . . . .	3 506	(NA)	336 112	333 427	310 755	(NA)	279 740	530 138	(NA)	(NA)	(NA)
1933 . . . . .	3 265	(NA)	301 951	254 071	282 000	(NA)	222 487	452 036	(NA)	(NA)	(NA)
1931 . . . . .	3 702	(NA)	(NA)	(NA)	272 757	(NA)	262 130	523 676	(NA)	(NA)	(NA)
1929 . . . . .	4 285	(NA)	351 224	443 827	318 472	(NA)	359 461	774 179	(NA)	(NA)	(NA)
1927 . . . . .	4 272	(NA)	350 380	443 832	316 081	(NA)	364 537	780 799	(NA)	(NA)	(NA)
1925 . . . . .	4 252	(NA)	(NA)	(NA)	314 128	(NA)	355 419	751 004	(NA)	(NA)	(NA)
1923 . . . . .	4 881	(NA)	(NA)	(NA)	345 650	(NA)	389 677	797 259	(NA)	(NA)	(NA)
1921 . . . . .	4 827	(NA)	313 877	385 184	280 363	(NA)	314 652	610 382	(NA)	(NA)	(NA)
1919 . . . . .	6 423	(NA)	394 104	469 321	350 079	(NA)	364 036	898 313	(NA)	(NA)	(NA)
1914 . . . . .	6 798	(NA)	340 741	213 331	308 223	(NA)	169 917	353 280	(NA)	(NA)	(NA)
1909 . . . . .	5 785	(NA)	339 992	190 969	311 312	(NA)	155 814	325 203	(NA)	(NA)	(NA)
1904 . . . . .	5 376	(NA)	284 300	141 004	266 013	(NA)	121 436	246 064	(NA)	(NA)	(NA)
1899 . . . . .	5 685	(NA)	265 218	117 404	249 913	(NA)	101 982	186 870	(NA)	(NA)	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The figures for 1939 through 1963 include data for employees of manufacturing establishments who were engaged in distribution and construction work. The extent to which data for such employees are included in the figures for earlier years is not known.

<sup>2</sup>For the period 1954 to 1963, figures represent adjusted value added by manufacture and for earlier years, unadjusted value added. Adjusted value added is equal to value of shipments (including resales of finished products) less cost of finished products, materials, supplies, fuel, electric energy and contract work, plus the net change in the value of finished products and work-in-process inventories between the beginning and end of the year, without adjustment for price changes. For industries reporting the value of production, the adjustment for the change in finished products inventories was not made. Unadjusted value added is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. For 1899 to 1933, cost of contract work was not subtracted from value of products in calculating value added by manufacture. See Introduction, "Value Added by Manufacture."

<sup>3</sup>The cost of materials and value of shipments figures (2- and 3- digit) include unmeasurable but substantial duplication arising from interplant transfers between establishments within the same industry classification. For a more complete explanation, see Introduction.

<sup>4</sup>For 1958 to 1963, includes expenditures for establishments under construction but not in operation.

<sup>5</sup>In addition to data for operating establishments, 1954, 1958, and 1963 data are shown for manufacturers' central administrative offices and auxiliary units. Similar data are shown for the years 1949-1953 in the annual survey of manufactures volumes. Data for these establishments are not available for the years 1955 to 1957, 1959 to 1962, or prior to 1949.

<sup>6</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, consequently, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
		(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)				
31	LEATHER & LEATHER PRODUCTS, TOTAL . .	4 047	2 073	327 489	1 227 824	292 339	543 094	982 096	2 078 572	34 566	349 165	1 898 007
	NORTHEAST . . . . .	2 691	1 374	192 685	728 597	171 822	313 993	579 919	1 136 649	17 034	211 822	1 104 696
	NEW ENGLAND . . . . .	956	557	97 728	377 887	86 692	156 648	298 012	3 574 422	8 313	108 625	573 158
	MAINE . . . . .	125	98	24 699	91 459	22 210	41 719	73 512	135 204	1 931	21 519	101 125
	NEW HAMPSHIRE . . . . .	115	86	20 137	72 942	18 186	32 242	60 049	104 325	1 933	20 256	97 339
	VERMONT . . . . .	9	7	748	2 633	590	1 198	2 274	4 463	88	689	3 713
	MASSACHUSETTS . . . . .	640	329	48 362	196 820	42 335	75 099	151 748	306 135	4 039	61 062	342 203
	RHODE ISLAND . . . . .	31	14	1 200	4 907	1 016	1 963	3 060	10 997	129	1 643	9 522
	CONNECTICUT . . . . .	36	23	2 582	9 126	2 355	4 427	7 369	13 298	193	3 456	19 256
	MIDDLE ATLANTIC . . . . .	1 735	817	94 957	350 710	85 130	159 345	281 907	562 227	8 721	103 197	531 538
	NEW YORK . . . . .	1 279	529	51 959	192 705	46 134	85 813	152 207	314 998	4 637	58 795	311 675
	NEW JERSEY . . . . .	197	107	11 570	48 899	10 340	19 355	38 206	79 479	1 164	12 087	67 248
	PENNSYLVANIA . . . . .	259	181	31 428	109 106	28 656	54 177	91 494	167 750	2 920	32 315	152 615
	NORTH CENTRAL . . . . .	648	387	78 169	299 438	69 509	129 841	240 341	574 028	10 079	89 468	527 119
	EAST NORTH CENTRAL . . . . .	448	241	47 905	198 351	42 216	80 126	156 553	364 667	6 036	52 741	326 470
	OHIO . . . . .	83	38	9 622	38 738	8 514	15 918	30 575	67 073	1 555	10 920	62 456
	INDIANA . . . . .	28	16	3 029	11 058	2 822	5 514	9 803	20 919	276	2 640	15 727
	ILLINOIS . . . . .	177	82	16 242	62 633	14 743	27 413	51 319	117 229	1 271	(D)	(D)
	MICHIGAN . . . . .	32	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	WISCONSIN . . . . .	128	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	46 924	108 367
	WEST NORTH CENTRAL . . . . .	200	146	30 264	101 087	27 293	49 715	83 788	209 361	4 043	36 727	200 649
	MINNESOTA . . . . .	17	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	IOWA . . . . .	12	8	662	2 078	534	893	1 404	3 248	31	290	958
	MISSOURI . . . . .	159	125	27 902	90 693	25 300	45 957	76 414	190 517	3 753	34 605	188 115
	NEBRASKA . . . . .	5	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	113	447
	KANSAS . . . . .	7	1	106	386	82	152	283	677	17	(D)	(D)
	SOUTH . . . . .	405	223	47 182	156 310	43 112	82 432	131 319	297 182	5 933	39 202	205 819
	SOUTH ATLANTIC . . . . .	173	95	16 713	56 728	14 879	28 291	45 307	96 396	1 726	15 833	74 505
	DELAWARE . . . . .	10	10	1 718	7 306	1 384	2 783	5 510	13 503	350	1 738	12 014
	MARYLAND . . . . .	22	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2 491	10 849
	VIRGINIA . . . . .	20	19	4 313	13 777	3 923	7 153	11 644	19 664	286	5 029	19 174
	WEST VIRGINIA . . . . .	8	6	842	3 132	787	1 559	2 851	4 830	106	819	5 073
	NORTH CAROLINA . . . . .	31	11	1 591	5 480	1 289	2 400	3 718	11 040	157	1 307	6 870
	SOUTH CAROLINA . . . . .	6	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	56	375
	GEORGIA . . . . .	27	17	3 957	12 990	3 750	7 504	11 066	25 085	332	3 504	15 247
	FLORIDA . . . . .	49	17	1 812	5 686	1 572	2 928	4 264	9 701	227	889	4 903
	EAST SOUTH CENTRAL . . . . .	107	77	20 778	69 975	19 298	37 483	61 284	147 465	3 260	16 072	97 139
	KENTUCKY . . . . .	17	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2 282	13 335
	TENNESSEE . . . . .	78	57	15 227	51 728	14 106	27 399	44 619	107 990	2 233	11 850	71 655
	ALABAMA . . . . .	5	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	MISSISSIPPI . . . . .	7	6	2 161	6 475	2 007	3 907	5 925	16 258	(D)	(D)	(D)
	WEST SOUTH CENTRAL . . . . .	125	51	9 691	29 607	8 935	16 658	24 728	53 321	947	7 297	34 175
	ARKANSAS . . . . .	24	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	3 947	20 663
	LOUISIANA . . . . .	3	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	OKLAHOMA . . . . .	14	3	384	1 154	351	637	894	1 896	25	(D)	(D)
	TEXAS . . . . .	84	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	WEST . . . . .	302	88	9 392	43 279	7 835	14 687	30 317	70 326	1 510	8 673	60 373
	MOUNTAIN . . . . .	38	10	2 956	14 955	2 348	4 549	9 895	26 118	750	2 201	19 690
	MONTANA . . . . .	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	IDAHO . . . . .	5	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	COLORADO . . . . .	17	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	NEW MEXICO . . . . .	5	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	ARIZONA . . . . .	6	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	UTAH . . . . .	4	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	PACIFIC . . . . .	264	78	6 436	28 324	5 487	10 138	20 422	44 208	760	6 472	40 683
	WASHINGTON . . . . .	14	3	334	1 363	277	452	869	1 821	17	(D)	(D)
	OREGON . . . . .	32	4	290	1 222	253	505	879	2 249	48	(D)	(D)
	CALIFORNIA . . . . .	204	68	5 683	25 288	4 849	9 002	18 279	39 415	661	5 786	37 157
	HAWAII . . . . .	14	3	129	451	108	179	395	723	34	(D)	(D)
311	LEATHER TANNING AND FINISHING, TOTAL <sup>1</sup>	525	256	31 417	163 307	27 282	54 556	129 756	273 092	6 480	37 130	275 796
312	INDUSTRIAL LEATHER BELTING, TOTAL <sup>1</sup>	83	23	2 870	15 897	2 099	4 198	9 723	32 915	742	3 975	36 300
313	FOOTWEAR CUT STOCK, TOTAL <sup>1</sup>	446	204	14 339	53 420	12 600	23 694	40 867	90 611	1 620	18 031	98 380

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963								1958		
		Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
		Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
314	FOOTWEAR, EXCEPT RUBBER, TOTAL . . .	1 193	912	212 767	753 359	192 795	352 223	619 751	1 279 295	19 570	226 928	1 146 409 314
	NORTHEAST . . . . .	732	563	119 034	431 843	107 416	193 937	350 866	647 703	9 339	129 713	620 280 314
	NEW ENGLAND . . . . .	348	288	73 736	272 931	66 089	117 398	219 167	400 795	4 836	79 045	382 821 314
	MAINE . . . . .	78	66	21 338	77 725	19 243	35 902	62 604	113 116	1 307	19 233	88 388 314
	NEW HAMPSHIRE . . . . .	60	53	17 014	59 678	15 436	26 929	49 390	86 178	1 440	16 871	77 937 314
	MASSACHUSETTS . . . . .	190	151	33 424	129 017	29 597	51 184	101 826	191 611	1 963	41 071	208 619 314
	MIDDLE ATLANTIC . . . . .	384	275	45 298	158 912	41 327	76 539	131 699	246 908	4 503	50 668	237 459 314
	NEW YORK . . . . .	226	139	18 312	67 467	16 410	29 862	54 333	107 859	1 978	25 319	125 481 314
	NEW JERSEY . . . . .	21	17	2 064	8 635	1 911	3 173	6 528	11 933	214	1 710	8 696 314
	PENNSYLVANIA . . . . .	137	119	24 922	82 810	23 006	43 504	70 838	127 116	2 311	23 639	103 282 314
	NORTH CENTRAL . . . . .	218	188	55 175	195 804	49 828	90 881	162 015	391 163	5 972	65 040	361 945 314
	EAST NORTH CENTRAL . . . . .	120	103	31 536	120 209	28 167	51 876	96 929	226 514	2 898	34 712	197 882 314
	OHIO . . . . .	23	19	7 434	28 842	6 654	12 288	22 839	46 007	948	8 561	45 883 314
	WISCONSIN . . . . .	45	41	8 808	35 476	7 354	13 752	25 922	60 137	602	10 006	57 579 314
	WEST NORTH CENTRAL . . . . .	98	85	23 639	75 595	21 661	39 005	65 086	164 649	3 074	30 328	164 063 314
	SOUTH AND WEST . . . . .	243	161	38 558	125 712	35 551	67 405	106 870	240 429	4 259	32 175	164 184 314
	MARYLAND . . . . .	12	11	1 847	5 896	1 614	2 929	4 399	7 857	122	1 936	8 165 314
	NORTH CAROLINA . . . . .	8	6	1 227	3 949	996	1 808	2 642	8 489	129	(D)	(D) 314
	GEORGIA . . . . .	11	9	2 954	9 254	2 822	5 630	8 042	19 215	218	2 608	10 451 314
	FLORIDA . . . . .	15	5	863	3 090	722	1 398	2 142	6 094	171	(D)	(D) 314
	KENTUCKY . . . . .	7	7	2 287	7 696	2 157	4 149	7 043	15 464	(D)	(D)	(D) 314
	TENNESSEE . . . . .	38	37	12 485	42 066	11 694	22 792	37 005	88 003	1 893	9 699	60 344 314
	CALIFORNIA . . . . .	56	27	2 510	9 824	2 232	4 002	7 602	15 817	153	(D)	(D) 314
315	LEATHER GLOVES, TOTAL <sup>1</sup> . . . . .	166	87	7 718	24 439	6 899	12 244	19 481	32 194	328	6 212	25 999 315
316	LUGGAGE, TOTAL <sup>1</sup> . . . . .	379	145	16 409	62 853	14 134	26 340	46 715	112 796	1 908	15 856	96 560 316
317	PURSES AND SMALL LEATHER GOODS, TOTAL	885	379	36 980	135 807	32 321	61 332	102 135	224 939	3 152	35 628	187 336 317
	NORTHEAST . . . . .	714	318	30 357	110 947	26 827	51 022	85 560	184 017	2 337	30 734	157 351 317
	NEW ENGLAND . . . . .	68	36	3 819	15 170	3 151	5 921	10 711	23 242	305	6 214	33 129 317
	MASSACHUSETTS . . . . .	41	21	2 558	10 733	2 124	3 871	7 124	17 582	212	3 837	19 207 317
	CONNECTICUT . . . . .	8	4	542	2 075	494	928	1 667	2 258	(D)	1 390	9 072 317
	MIDDLE ATLANTIC . . . . .	646	282	26 538	95 777	23 676	45 101	74 849	160 775	2 032	24 520	124 222 317
	NEW YORK . . . . .	545	225	19 861	72 105	17 602	33 455	55 933	121 783	1 491	17 506	91 734 317
	NEW JERSEY . . . . .	76	40	4 945	18 189	4 497	8 659	14 570	30 431	338	5 091	23 796 317
	PENNSYLVANIA . . . . .	25	17	1 732	5 483	1 577	2 987	4 346	8 561	203	1 923	8 692 317
	NORTH CENTRAL . . . . .	62	28	3 852	15 467	3 036	5 747	9 517	27 065	424	3 145	20 472 317
	EAST NORTH CENTRAL . . . . .	48	17	1 936	7 650	1 542	2 865	4 807	14 226	160	(D)	(D) 317
	WEST NORTH CENTRAL . . . . .	14	11	1 916	7 817	1 494	2 882	4 710	12 839	264	(D)	(D) 317
	SOUTH . . . . .	58	20	1 721	5 123	1 528	2 832	3 913	7 369	316	1 101	5 505 317
	SOUTH ATLANTIC . . . . .	28	11	987	2 732	886	1 639	2 234	3 788	66	(D)	(D) 317
	EAST SOUTH CENTRAL . . . . .	11	1	136	423	123	241	393	552	35	(D)	(D) 317
	TENNESSEE . . . . .	11	1	136	423	123	241	393	552	35	(D)	(D) 317
	WEST SOUTH CENTRAL . . . . .	19	8	598	1 968	519	952	1 286	3 029	215	(D)	(D) 317
	TEXAS . . . . .	10	4	214	715	180	332	466	1 190	119	141	686 317
	WEST . . . . .	51	13	1 050	4 270	930	1 731	3 145	6 488	75	648	4 008 317
	CALIFORNIA . . . . .	42	12	962	4 008	869	1 629	2 983	6 115	65	(D)	(D) 317
319	LEATHER GOODS, NEC, TOTAL <sup>1</sup> . . . . .	370	67	4 989	18 742	4 209	8 507	13 668	32 730	766	5 405	31 227 319

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.  
<sup>1</sup>This industry group consists of a single 4-digit industry. Detailed data by State are included in the 4-digit industry table.



TABLE 3. Detailed Statistics: 1963

Item	Leather and leather products (SIC 31)	Leather tanning and finishing (SIC 311)	Industrial leather belting (SIC 312)	Footwear cut stock (SIC 313)	Footwear, except rubber (SIC 314)	Leather gloves (SIC 315)	Luggage (SIC 316)	Purses and small leather goods (SIC 317)	Leather goods, n.e.c. (SIC 319)
ESTABLISHMENTS, TOTAL . . . . . NUMBER . .	4 047	525	83	446	1 193	166	379	885	370
WITH 1 TO 19 EMPLOYEES. . . . . DO. .	1 974	269	60	242	281	79	234	506	303
WITH 20 TO 99 EMPLOYEES . . . . . DO. .	1 135	166	18	169	274	66	102	278	62
WITH 100 EMPLOYEES OR MORE. . . . . DO. .	938	90	5	35	638	21	43	101	5
PROPRIETORS AND WORKING PARTNERS. . . . . DO. .	2 345	328	63	376	570	92	202	449	265
ALL EMPLOYEES (AVERAGE FOR THE YEAR). . . . . DO. .	327 489	31 417	2 870	14 339	212 767	7 718	16 409	36 980	4 989
PAYROLL (ALL EMPLOYEES), TOTAL FOR YEAR \$1,000. .	1 227 824	163 307	15 897	53 420	753 359	24 439	62 853	135 807	18 742
PRODUCTION WORKERS:									
AVERAGE FOR THE YEAR. . . . . NUMBER . .	292 339	27 282	2 099	12 600	192 795	6 899	14 134	32 321	4 209
MARCH . . . . . DO. .	293 655	26 749	2 074	12 971	195 218	6 394	13 184	32 944	4 121
MAY . . . . . DO. .	284 735	26 959	2 128	12 353	190 247	6 707	14 092	28 054	4 195
AUGUST. . . . . DO. .	297 039	27 284	2 129	12 464	195 131	7 259	14 877	33 638	4 257
NOVEMBER. . . . . DO. .	293 935	28 136	2 065	12 620	190 584	7 236	14 383	34 648	4 263
MAN-HOURS . . . . . \$1,000. .	543 094	54 556	4 198	23 694	352 223	12 244	26 340	61 332	8 507
JANUARY-MARCH . . . . . DO. .	135 951	13 436	1 033	6 056	89 290	2 752	6 070	15 305	2 009
APRIL-JUNE. . . . . DO. .	132 994	13 871	1 082	5 914	86 776	3 000	6 739	13 510	2 102
JULY-SEPTEMBER. . . . . DO. .	135 835	13 275	1 030	5 740	87 854	3 276	6 819	15 733	2 108
OCTOBER-DECEMBER. . . . . DO. .	138 314	13 974	1 053	5 984	88 303	3 216	6 712	16 784	2 288
WAGES . . . . . \$1,000. .	982 096	129 756	9 723	40 867	619 751	19 481	46 715	102 135	13 668
COST OF MATERIALS, ETC., TOTAL <sup>1</sup> . . . . . DO. .	2 127 776	480 507	18 954	138 225	1 094 496	46 694	100 363	213 710	34 827
MATERIALS, PARTS, CONTAINERS, AND SUPPLIES CONSUMED. . . . . DO. .	1 924 011	397 655	15 591	129 045	1 038 099	34 295	93 531	185 991	29 804
COST OF RESALES . . . . . DO. .	67 554	8 177	2 697	6 310	24 858	7 502	4 405	9 183	4 422
FUELS CONSUMED. . . . . DO. .	12 787	8 350	139	543	2 865	138	276	389	87
ELECTRIC ENERGY:									
PURCHASED:									
QUANTITY. . . . . MILLION KW.-HRS. .	880	291	16	54	387	7	48	67	10
COST. . . . . \$1,000. .	15 904	4 694	227	1 027	7 570	146	781	1 278	181
GENERATED LESS SOLD . . . . . MILLION KW.-HRS. .	621	78	-	(0)	122	-	(0)	(0)	(0)
CONTRACT WORK . . . . . \$1,000. .	107 520	61 631	300	1 300	21 104	4 613	1 370	16 869	333
VALUE OF SHIPMENTS (INCLUDING RESALES), TOTAL <sup>1</sup> . . . . . DO. .	4 209 614	758 408	51 869	229 253	2 372 727	80 640	210 303	439 356	67 058
VALUE OF RESALES. . . . . DO. .	86 733	9 095	3 783	7 972	30 668	9 201	6 297	13 076	6 641
VALUE ADDED BY MANUFACTURE, ADJUSTED. . . . . DO. .	2 078 572	273 092	32 915	90 611	1 279 295	32 194	112 796	224 939	32 730
MANUFACTURERS' INVENTORIES:									
BEGINNING OF YEAR, TOTAL. . . . . DO. .	566 439	149 201	7 667	24 310	285 248	16 532	33 312	40 824	9 345
FINISHED PRODUCTS . . . . . DO. .	216 925	46 085	3 489	9 596	111 492	8 370	14 745	18 799	4 349
WORK-IN-PROCESS . . . . . DO. .	136 184	63 404	1 839	3 319	52 409	3 347	4 386	6 641	839
MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO. .	213 329	39 712	2 339	11 395	121 347	4 815	14 180	15 384	4 157
END OF YEAR, TOTAL. . . . . DO. .	551 861	140 301	7 726	22 980	280 454	14 858	36 292	39 723	9 527
FINISHED PRODUCTS . . . . . DO. .	215 783	43 839	3 566	8 831	112 218	6 828	17 731	18 129	4 641
WORK-IN-PROCESS . . . . . DO. .	134 060	60 841	1 762	3 667	52 747	3 137	4 256	6 604	1 046
MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO. .	202 018	35 621	2 398	10 482	115 489	4 893	14 305	14 990	3 840
EXPENDITURES FOR PLANT AND EQUIPMENT, TOTAL DO. .	38 462	7 003	771	1 953	22 023	370	2 159	3 385	798
NEW, TOTAL. . . . . DO. .	34 566	6 480	742	1 620	19 570	328	1 908	3 152	766
NEW STRUCTURES AND ADDITIONS TO PLANT. . . . . DO. .	6 257	756	75	184	4 386	96	139	412	209
NEW MACHINERY AND EQUIPMENT . . . . . DO. .	28 309	5 724	667	1 436	15 184	232	1 769	2 740	557
USED PLANT AND EQUIPMENT. . . . . DO. .	3 896	523	29	333	2 453	42	251	233	32
SELECTED OPERATING RATIOS:									
PAYROLL/TOTAL EMPLOYMENT. . . . .	3 749	5 198	5 539	3 726	3 541	3 166	3 830	3 672	3 757
PRODUCTION WORKERS/TOTAL EMPLOYMENT . . . . .	.89	.87	.73	.88	.91	.89	.86	.87	.84
MAN-HOURS/PRODUCTION WORKERS. . . . .	1 858	2 000	1 984	1 880	1 827	1 775	1 878	1 898	2 021
PRODUCTION WORKER WAGES/MAN-HOURS . . . . .	1.81	2.38	2.33	1.72	1.76	1.59	1.76	1.67	1.61
COST OF MATERIALS AND PAYROLLS/TOTAL VALUE OF SHIPMENTS. . . . .	.80	.85	.67	.84	.78	.88	.78	.80	.80
COST OF MATERIALS/TOTAL VALUE OF SHIPMENTS. . . . .	.51	.63	.37	.60	.46	.58	.48	.49	.52
ADJUSTED VALUE ADDED/TOTAL EMPLOYMENT . . . . .	6 347	8 692	11 469	6 319	6 013	4 171	6 847	6 083	6 560
SALARIES AND WAGES/ADJUSTED VALUE ADDED . . . . .	.59	.60	.48	.59	.59	.76	.56	.60	.57

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry. For a more complete explanation, see Introduction.

## TANNING; FOOTWEAR; INDUSTRIAL LEATHER GOODS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3111—Leather Tanning and Finishing
- 3121—Industrial Leather Belting and Packing
- 3131—Boot and Shoe Cut Stock and Findings
- 3141—Footwear, Except House Slippers and Rubber Footwear
- 3142—House Slippers

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3111--LEATHER TANNING AND FINISHING

This industry comprises establishments primarily engaged in tanning, currying and finishing hides and skins into leather. This industry also includes leather converters, who buy hides and skins and have them processed into leather on a contract basis by others. For a detailed list of products of industry 3111, refer to table 6A, product codes 3111111 to 3111911.

**Patterns of Operation.**—The leather tanning and finishing industry is characterized by three major types of establishment operations: (1) "regular tanneries," (2) leather "converters," and (3) "contract tanneries." The regular tannery purchases raw materials, employs production workers in the plant to tan, curry, and finish the hides and skins, and sells the finished product; in effect, this establishment type performs all of the usual manufacturing functions within one establishment.

The leather converter, on the other hand, typically performs only the entrepreneurial functions of the manufacturing concern, such as buying raw materials, arranging with outside factories (contract tanneries) for the production of the finished leathers, and marketing the finished product. The actual tanning and finishing of the hides and skins is done on contract by the contract tanneries. The contract tanner employs production



workers in his own establishment to process materials owned by converters, makes products to specification, and does not become involved in the sale of the finished product.

**Methods of Reporting on Census Questionnaires.**—Typically, the regular tannery reports figures on employment (including production workers), cost of hides, skins, and other raw materials, and the value of shipments of products made by him from his own materials. The leather converter will show, in addition to his cost of raw materials, a cost for contract work, and the shipments of products made for him from his own materials. The typical leather converter's questionnaire shows few, if any, production workers but labor costs are indirectly reflected in his report on cost of contract work. The contract tanner, on the other hand, reports figures on employment (primarily production workers). Instead of showing the shipments of the leathers which he processed (which would duplicate the data reported by his principals), the contractor reports his receipts for the contract work done for leather converters on their materials. His materials costs and contract receipts do not include any costs for materials which he has processed but did not own.

**Classification of Establishments.**—Since these different methods of operation lead to significant differences in the various relationships between wages and salaries paid, cost of materials, value of shipments, and value added by manufacture, plants were classified by their primary method of operation, as regular tanneries, converters, or contract tanneries. Separate statistics for each group are shown in tables 2 to 4.

It should be noted, however, that some establishments in industry 3111 employ more than one method of operating. For example, some establishments act as both a regular tannery and a leather converter, or as a regular and a contract tannery. In assigning the primary method of operation for manufacturer-converter plants, the relationship between wages and salaries paid to the cost of contract work was the determining factor. If direct wage and salary payments were less than payments for contract work, the plant was classified as a converter. For plants operating as both regular and contract tanneries, the relationship between the value of shipments of products made for their own account was compared with the receipts for work done on materials owned by other establishments to determine the plant's primary method of operation.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Leather Tanning and Finishing Industry in 1963 totaled \$758 million. This amount included shipments of tanned, curried and finished leather (primary products) valued at \$633 million, shipments of other products (secondary products) valued at \$5 million, and miscellaneous receipts (mainly contract work on materials owned by others) at \$120 million.

This industry's shipments of tanned, curried and finished leather in 1963 represented 99 percent of its total product shipments. The industry specialization ratio in 1958 was 100 percent.

The production index for the primary products of the industry decreased to 90 in 1963 from the 1958 level of 99. The unit value index for 1963 was 113 compared to 103 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3121—INDUSTRIAL LEATHER BELTING AND PACKING

This industry comprises establishments primarily engaged in manufacturing industrial leather products, such as transmission belting, mechanical packings, and textile leather.

Establishments primarily engaged in manufacturing leather gaskets are classified in industry 3293, Steam and Other Packing and Pipe and Boiler Covering. For a detailed list of products of industry 3121, refer to table 6A, product codes 3121013 to 3121098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Industrial Leather Belting Industry in 1963 totaled \$51.9 million. This amount included shipments of industrial leather belting and packing (primary products) valued at \$42.5 million, shipments of other products (secondary products) valued at \$5.2 million, and miscellaneous receipts (mainly products bought and resold without further processing) at \$4.2 million.

This industry's shipments of \$42.5 million in 1963 represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was 90 percent. Secondary products shipped by this industry in 1963 consisted mainly of mechanical rubber goods, n.e.c. (\$4.3 million).

### 3131—BOOT AND SHOE CUT STOCK AND FINDINGS

This industry comprises establishments primarily engaged in manufacturing leather soles, inner soles, and other boot and shoe cut stock and findings. This industry also includes finished wood heels. Establishments primarily engaged in manufacturing heels, soling strips, and soles made of rubber, composition, plastics, and fiber are classified in Major Group 30, Rubber and Miscellaneous Plastics Products. For a detailed list of products of industry 3131, refer to table 6A, product codes 3131011 to 3131069.

It should be noted that the statistics for the Footwear Cut Stock Industry include only establishments primarily producing for the commercial market or for transfer to other plants of the same company. The figures shown in table 6A on the shipments of footwear cut stock and findings do not include the production of these products made and consumed in integrated shoe manufacturing plants.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Footwear Cut Stock Industry in 1963 totaled \$229.3 million. This amount included shipments of boot and shoe cut stock and findings (primary products) valued at \$202.4 million, shipments of other products (secondary products) valued at \$14.1 million, and miscellaneous receipts (mainly products bought and resold without further processing) at \$12.7 million.

This industry's shipments of boot and shoe cut stock and findings in 1963 represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent. Secondary products shipped by this industry in 1963 consisted mainly of rubber heels and soles (\$7.3 million), and leather tanning and finishing (\$1.3 million).

The production index for the primary products of the industry decreased to 79 in 1963 from the 1958 level of 89. The unit value index for 1963 was 113 compared to 111 in 1958. Both indexes were computed on a basis of 1954 = 100.

### 3141—FOOTWEAR, EXCEPT HOUSE SLIPPERS AND RUBBER FOOTWEAR

This industry comprises establishments primarily engaged in the manufacture of boots and shoes designed primarily for street, work, play or sport wear. Establishments



primarily engaged in the production of such protective footwear as rubbers, rubber boots, storm shoes, galoshes and other footwear with rubber soles vulcanized to fabric uppers are classified in industry 3021. For a detailed list of products of industry 3141, refer to table 6A, product codes 3141101 to 3141710.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Establishments in this industry were requested to report "value of shipments" in 1963 and "value of production" in prior years. This change was made as a result of a review of the reporting which indicated that the value of shipments data were more generally available from company records and were usually reported in place of value of production. This change does not significantly affect the comparability between 1963 and prior years for the product statistics shown in table 6A or in the value of shipments or value added data shown in table 1.

Value of shipments and other receipts of the Shoes, Except Rubber Industry in 1963 totaled \$2,249 million. This amount included shipments of shoes, except rubber (primary products) valued at \$2,174 million, shipments of other products (secondary products) valued at \$26 million, and miscellaneous receipts (mainly contract work on materials owned by others), at \$49 million.

This industry's shipments of shoes, except rubber in 1963 represented 99 percent of its total product shipments. The industry specialization ratio in 1958 was also 99 percent. Secondary products shipped by this industry in 1963 consisted mainly of house slippers (\$17 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 26 percent of the total industry shipments are represented by plants specializing in men's dress shoes, including play shoes; and 48 percent in women's dress, work, and play shoes.

Shipments of shoes, except rubber, by this industry in 1963 represented 99 percent of all shipments of these products (\$2,197 million) by all industries. In 1958 the coverage ratio was also 99 percent.

The production index for the primary products of the industry increased to 112 in 1963 from the 1958 level of 110. The unit value index for 1963 was 111 compared to 103 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3142—HOUSE SLIPPERS

This industry comprises establishments primarily engaged in manufacturing house slippers of leather or other materials. For a detailed list of products of industry 3142, refer to table 6A, product code 3142061.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Establishments in this industry were requested to report "value of shipments" in 1963 and "value of production" in prior years. This change was made as a result of a review

of the reporting which indicated that the value of shipments data were more generally available from company records and were usually reported in place of value of production. This change does not significantly affect the comparability between 1963 and prior years for the product statistics shown in table 6A or in the value of shipments or value added data shown in table 1.

Value of shipments and other receipts of the House Slippers Industry in 1963 totaled \$123 million. This amount included shipments of house slippers (primary products) valued at \$108 million, shipments of other products (secondary products) valued at \$12 million, and miscellaneous receipts (mainly contract work on materials owned by others), at \$3 million.

This industry's shipments of house slippers in 1963 represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was 90 percent.

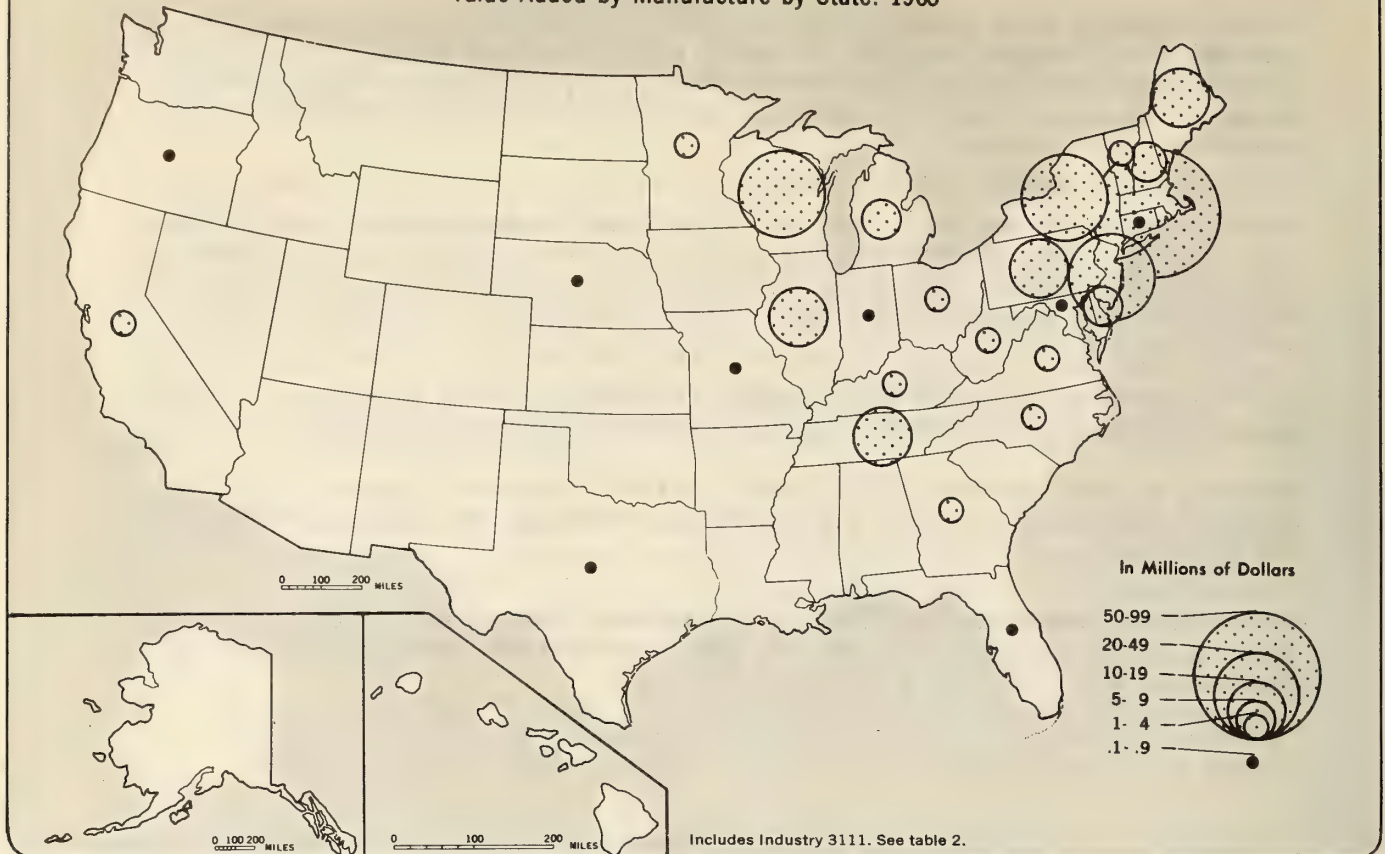
Shipments of house slippers by this industry in 1963 represented 85 percent of all shipments of these products (\$128 million) by all industries. In 1958 the coverage ratio was 85 percent.

The production index for the primary products of the industry increased to 146 in 1963 from the 1958 level of 131. The unit value index for 1963 was 94 compared to 95 in 1958. Both indexes were computed on a basis of 1954 = 100.



# LEATHER TANNING AND FINISHING: SIC 311

Value Added by Manufacture by State: 1963

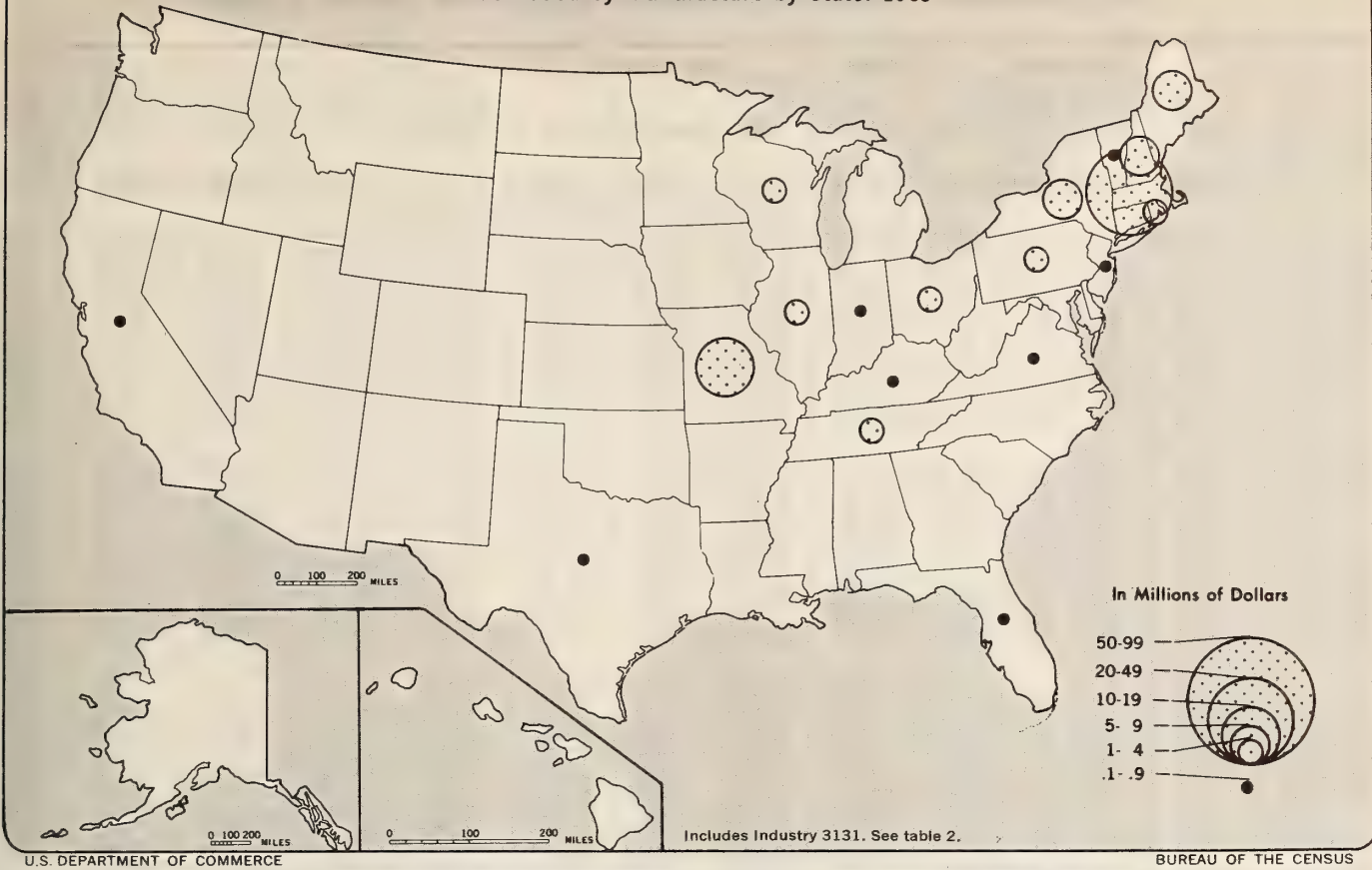


# INDUSTRIAL LEATHER BELTING: SIC 312

Value Added by Manufacture by State: 1963



# **FOOTWEAR CUT STOCK: SIC 313** **Value Added by Manufacture by State: 1963**



# **FOOTWEAR, EXCEPT RUBBER: SIC 314** **Value Added by Manufacture by State: 1963**

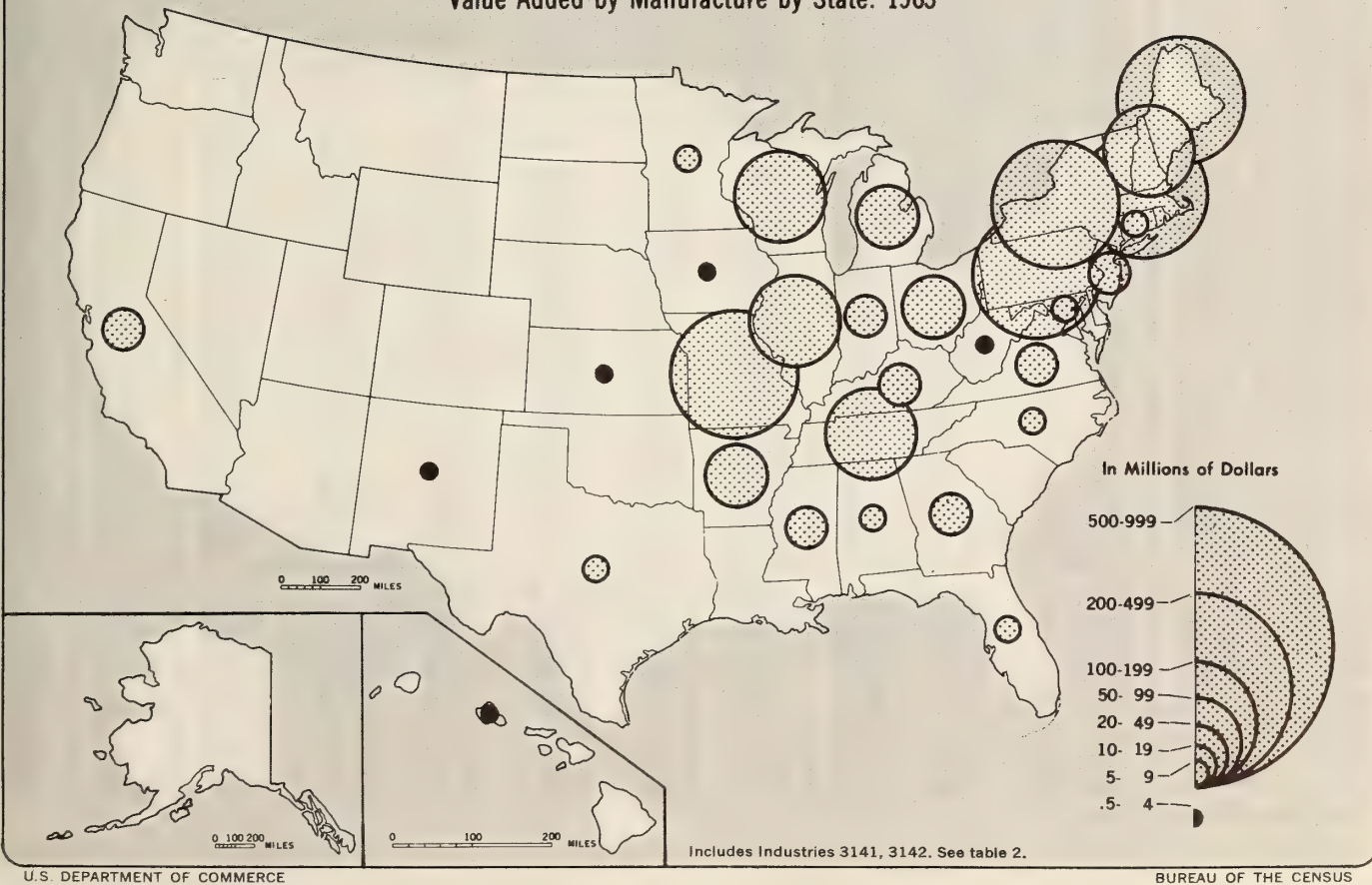




TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spec- ializa- tion ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3111.—LEATHER TANNING AND FINISHING														
1963.....	482	525	256	31,417	163,307	27,282	54,556	129,756	273,092	480,507	758,408	6,480	99	100
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	31,659	157,237	27,300	53,333	123,107	263,599	491,005	765,942	7,154	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	33,227	157,909	28,658	55,018	123,989	267,457	486,690	761,138	4,699	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	34,539	163,864	29,955	57,600	128,901	278,536	508,470	790,724	6,145	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	37,055	173,573	32,359	62,606	137,101	337,518	558,897	886,908	7,583	(NA)	(NA)
1958.....	521	578	280	37,130	165,545	32,466	63,376	133,183	275,796	464,933	743,124	7,905	100	100
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	40,099	171,071	35,001	68,455	137,409	289,901	454,739	737,432	6,847	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	41,380	172,452	36,505	72,076	140,973	288,464	480,447	759,479	6,156	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	43,498	177,153	38,640	76,923	144,511	296,634	458,789	762,836	6,579	(NA)	(NA)
1954 <sup>2</sup> .....	525	579	298	43,468	168,139	38,662	75,689	137,487	260,228	448,274	713,324	7,123	98	100
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	46,388	180,251	41,635	83,760	148,983	271,648	496,557	768,205	7,034	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	44,028	162,722	39,476	78,243	134,653	285,515	510,597	796,112	4,193	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	45,103	159,544	40,497	79,597	129,763	286,195	697,136	983,331	7,239	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	49,623	164,904	44,883	89,065	134,840	318,543	631,478	950,021	7,952	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	50,195	160,333	44,657	88,775	129,192	291,514	587,404	878,918	(S)	(NA)	(NA)
1947 <sup>2</sup> .....	(NA)	561	(NA)	53,261	156,632	48,686	100,964	130,700	403,831	666,436	1,070,267	10,565	100	100
1939 <sup>2</sup> .....	(NA)	446	(NA)	51,592	69,266	47,252	(NA)	56,783	117,394	229,044	346,438	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	402	(NA)	54,427	72,026	50,687	(NA)	61,288	113,516	281,506	395,022	(NA)	(NA)	(NA)
1935 <sup>2</sup> .....	(NA)	384	(NA)	54,823	66,640	50,877	(NA)	55,683	108,934	199,411	308,345	(NA)	(NA)	(NA)
1933 <sup>2</sup> .....	(NA)	374	(NA)	47,008	48,909	44,191	(NA)	43,076	99,025	138,177	237,202	(NA)	(NA)	(NA)
1931 <sup>2</sup> .....	(NA)	418	(NA)	(NA)	(NA)	42,047	(NA)	49,542	98,352	172,786	271,138	(NA)	(NA)	(NA)
1929 <sup>2</sup> .....	(NA)	471	(NA)	54,223	79,063	49,932	(NA)	63,414	143,742	337,598	481,340	(NA)	(NA)	(NA)
1927 <sup>2</sup> .....	(NA)	494	(NA)	57,324	81,743	52,924	(NA)	67,887	162,271	331,985	494,256	(NA)	(NA)	(NA)
1925 <sup>2</sup> .....	(NA)	531	(NA)	(NA)	(NA)	52,263	(NA)	65,834	155,233	296,953	452,186	(NA)	(NA)	(NA)
1923 <sup>2</sup> .....	(NA)	597	(NA)	65,312	89,401	59,703	(NA)	73,784	167,148	321,750	488,898	(NA)	(NA)	(NA)
1921 <sup>2</sup> .....	(NA)	608	(NA)	53,669	71,138	48,955	(NA)	57,741	105,640	277,725	383,365	(NA)	(NA)	(NA)
1919 <sup>2</sup> .....	(NA)	680	(NA)	78,894	108,384	72,476	(NA)	88,205	282,070	646,522	928,592	(NA)	(NA)	(NA)
1914 <sup>2</sup> .....	(NA)	741	(NA)	60,214	39,291	55,936	(NA)	31,914	82,957	284,245	367,202	(NA)	(NA)	(NA)
1909 <sup>2</sup> .....	(NA)	919	(NA)	66,316	38,846	62,202	(NA)	32,103	79,595	248,279	327,874	(NA)	(NA)	(NA)
1904 <sup>2</sup> .....	(NA)	1,049	(NA)	60,490	31,501	57,239	(NA)	27,049	61,442	191,179	252,621	(NA)	(NA)	(NA)
1899 <sup>2</sup> .....	(NA)	1,306	(NA)	54,551	25,750	52,109	(NA)	22,591	49,038	155,000	204,038	(NA)	(NA)	(NA)
INDUSTRY 3121.—INDUSTRIAL LEATHER BELTING														
1963 <sup>2</sup> .....	81	83	23	2,870	15,897	2,099	4,198	9,723	32,915	18,954	51,869	742	89	84
1962 <sup>2</sup> .....	(NA)	(NA)	(NA)	(3,630)	(19,596)	(2,498)	(4,698)	(11,750)	(49,954)	(29,456)	(79,300)	(3,285)	(NA)	(NA)
1961 <sup>2</sup> .....	(NA)	(NA)	(NA)	(4,735)	(21,033)	(3,623)	(5,477)	(12,012)	(43,860)	(23,455)	(66,528)	(1,461)	(NA)	(NA)
1960 <sup>2</sup> .....	(NA)	(NA)	(NA)	(6,704)	(26,152)	(5,068)	(9,202)	(16,913)	(51,998)	(29,723)	(81,020)	(2,341)	(NA)	(NA)
1959 <sup>2</sup> .....	(NA)	(NA)	(NA)	(5,551)	(25,461)	(4,208)	(8,653)	(16,647)	(46,862)	(41,313)	(87,977)	(1,932)	(NA)	(NA)
1958.....	99	104	32	3,975	18,689	2,769	5,371	11,506	36,300	30,435	66,560	1,233	90	92
1957 <sup>2</sup> .....	(NA)	(NA)	(NA)	4,537	20,670	3,128	6,415	12,708	43,839	31,050	72,069	(S)	(NA)	(NA)
1956 <sup>2</sup> .....	(NA)	(NA)	(NA)	4,860	21,741	3,520	6,910	13,583	50,669	36,633	82,416	(S)	(NA)	(NA)
1954 <sup>2</sup> .....	128	136	34	4,576	18,569	3,342	6,513	11,484	35,383	30,682	67,102	1,955	97	92
1953 <sup>2</sup> .....	(NA)	(NA)	(NA)	5,026	21,147	3,545	7,251	12,930	49,719	32,359	82,078	1,038	(NA)	(NA)
1951 <sup>2</sup> .....	(NA)	(NA)	(NA)	6,630	25,595	5,141	10,975	16,601	39,903	52,198	92,101	1,416	(NA)	(NA)
1950 <sup>2</sup> .....	(NA)	(NA)	(NA)	5,333	20,205	4,096	8,394	11,522	35,099	30,485	65,584	1,133	(NA)	(NA)
1949 <sup>2</sup> .....	(NA)	(NA)	(NA)	4,865	16,064	3,708	7,567	9,696	30,206	34,194	64,400	578	(NA)	(NA)
1947 <sup>2</sup> .....	178	183	43	5,032	13,441	4,015	8,285	9,667	28,375	29,028	57,403	1,320	91	98
1939 <sup>2</sup> .....	(NA)	190	(NA)	3,117	4,941	2,337	(NA)	2,861	10,814	13,596	24,410	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	182	(NA)	3,454	4,869	2,829	(NA)	3,355	12,372	15,529	27,901	(NA)	(NA)	(NA)
1935 <sup>2</sup> .....	(NA)	187	(NA)	3,038	4,016	2,362	(NA)	2,520	9,948	11,574	21,522	(NA)	(NA)	(NA)
1933 <sup>2</sup> .....	(NA)	122	(NA)	2,161	2,502	1,684	(NA)	1,733	7,862	7,018	14,880	(NA)	(NA)	(NA)
1931 <sup>2</sup> .....	(NA)	178	(NA)	(NA)	(NA)	1,640	(NA)	1,968	7,220	7,302	14,522	(NA)	(NA)	(NA)
1929 <sup>2</sup> .....	(NA)	207	(NA)	3,417	5,908	2,602	(NA)	3,550	14,952	20,680	35,632	(NA)	(NA)	(NA)
1927 <sup>2</sup> .....	(NA)	173	(NA)	2,925	4,944	2,164	(NA)	2,925	11,081	16,185	27,266	(NA)	(NA)	(NA)
1925 <sup>2</sup> .....	(NA)	168	(NA)	5,430	5,631	2,644	(NA)	3,505	12,943	18,868	31,811	(NA)	(NA)	(NA)
1923 <sup>2</sup> .....	(NA)	169	(NA)	3,969	5,912	3,160	(NA)	3,895	13,155	24,569	37,724	(NA)	(NA)	(NA)
1921 <sup>2</sup> .....	(NA)	164	(NA)	3,249	5,099	2,268	(NA)	2,842	6,092	13,076	19,168	(NA)	(NA)	(NA)
1919 <sup>2</sup> .....	(NA)	172	(NA)	3,928	5,956	2,765	(NA)	3,260	12,324	28,157	40,481	(NA)	(NA)	(NA)
1914 <sup>2</sup> .....	(NA)	151	(NA)	4,177	3,829	2,951	(NA)	2,070	7,556	15,480	23,036	(NA)	(NA)	(NA)
1909 <sup>2</sup> .....	(NA)	139	(NA)	4,270	3,363	3,006	(NA)	1,861	8,069	15,623	23,692	(NA)	(NA)	(NA)
1904 <sup>2</sup> .....	(NA)	117	(NA)	2,706	1,952	2,092	(NA)	1,165	4,903	9,317	14,220	(NA)	(NA)	(NA)
1899 <sup>2</sup> .....	(NA)	104	(NA)	2,100	1,399	1,667	(NA)	914	3,122	7,500	10,622	(NA)	(NA)	(NA)
INDUSTRY 3131.—FOOTWEAR CUT STOCK														
1963 <sup>2</sup> .....	414	446	204	14,339	53,420	12,600	23,694	40,867	90,611	138,225	229,253	1,620	93	94
1962 <sup>2</sup> .....	(NA)	(NA)	(NA)	17,398	61,144	15,291	29,266	48,815	111,564	149,219	261,524	3 <sup>(856)</sup>	(NA)	(NA)
1961 <sup>2</sup> .....	(NA)	(NA)	(NA)	19,730	66,718	17,312	32,328	52,972	111,956	160,080	272,512	(S)	(NA)	(NA)
1960 <sup>2</sup> .....	(NA)	(NA)	(NA)	20,066	68,797	17,624	33,452	54,006	113,198	174,448	288,025	(S)	(NA)	(NA)
1959 <sup>2</sup> .....	(NA)	(NA)	(NA)	20,312	68,258	17,890	33,397	53,919	116,941	180,479	296,895	(S)	(NA)	(NA)
1958.....	472	513	235	18,031	58,489	15,516	28,859	44,570	98,380	158,637	256,652	2,002	95	95
1957 <sup>2</sup> .....	(NA)	(NA)	(NA)	22,470	66,538	20,063	37,248	53,164	109,125	176,214	284,312	(S)	97	96
1956 <sup>2</sup> .....	(NA)	(NA)	(NA)	21,628	63,262	19,103	35,061	49,512	103,742	178,373	279,204	(S)	(NA)	(NA)
1955 <sup>2</sup> .....	(NA)	(NA)	(NA)	21,898	61,885	19,665	34,401	48,986	96,468	174,301	270,577	(S)	(NA)	(NA)
1954 <sup>2</sup> .....	522	563	261	20,059	57,113	17,641	32,533	44,231	87,070	170,826	259,732	3,063	97	96

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new  (\$1,000)	Spec- ial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3131.—FOOTWEAR CUT STOCK—Continued														
1953 <sup>2</sup> .....	(NA)	(NA)	(NA)	20,431	59,305	18,033	34,197	46,510	93,129	175,094	268,223	2,064	(NA)	(NA)
1952 <sup>2</sup> .....	(NA)	(NA)	(NA)	18,926	51,707	16,398	28,957	40,913	77,154	186,085	267,249	985	(NA)	(NA)
1951 <sup>2</sup> .....	(NA)	(NA)	(NA)	17,988	46,100	15,584	27,535	37,111	66,494	243,598	314,102	(S)	(NA)	(NA)
1950 <sup>2</sup> .....	(NA)	(NA)	(NA)	22,280	51,585	19,001	34,346	40,718	72,460	200,320	276,790	(S)	(NA)	(NA)
1949 <sup>2</sup> .....	(NA)	(NA)	(NA)	20,260	46,297	18,003	33,240	37,204	72,988	189,542	262,911	1,386	(NA)	(NA)
1947 <sup>2</sup> .....	544	606	(NA)	22,077	47,793	19,706	38,145	38,468	87,301	206,560	294,309	1,921	99	97
1939 <sup>2</sup> .....	(NA)	520	(NA)	21,293	22,735	18,845	(NA)	17,196	38,912	90,487	129,399	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	470	(NA)	20,780	22,266	18,755	(NA)	17,844	36,672	95,988	132,660	(NA)	(NA)	(NA)
1935 <sup>2</sup> .....	(NA)	498	(NA)	20,263	21,257	18,275	(NA)	16,781	35,262	76,317	111,579	(NA)	(NA)	(NA)
1933 <sup>2 5</sup> .....	(NA)	487	(NA)	18,331	16,615	16,798	(NA)	13,918	31,429	61,864	93,293	(NA)	(NA)	(NA)
1931 <sup>2</sup> .....	(NA)	552	(NA)	(NA)	(NA)	17,672	(NA)	16,412	34,827	82,274	117,101	(NA)	(NA)	(NA)
1929 <sup>2</sup> .....	(NA)	592	(NA)	22,290	27,538	19,875	(NA)	21,378	52,563	139,510	192,073	(NA)	(NA)	(NA)
1927 <sup>2</sup> .....	(NA)	580	(NA)	21,230	26,311	18,561	(NA)	20,556	48,627	129,829	178,456	(NA)	(NA)	(NA)
1925 <sup>2</sup> .....	(NA)	571	(NA)	(NA)	(NA)	16,582	(NA)	18,601	41,537	104,575	146,112	(NA)	(NA)	(NA)
1923 <sup>2</sup> .....	(NA)	592	(NA)	(NA)	(NA)	15,903	(NA)	16,255	41,166	199,685	150,851	(NA)	(NA)	(NA)
1921 <sup>2</sup> .....	(NA)	570	(NA)	15,000	18,628	12,966	(NA)	14,222	31,954	79,854	111,808	(NA)	(NA)	(NA)
1919 <sup>2</sup> .....	(NA)	679	(NA)	21,469	23,259	18,656	(NA)	17,312	49,713	174,316	224,029	(NA)	(NA)	(NA)
1914 <sup>2</sup> .....	(NA)	605	(NA)	16,645	9,823	14,533	(NA)	7,278	16,513	71,755	88,268	(NA)	(NA)	(NA)
1909 <sup>2</sup> .....	(NA)	575	(NA)	14,456	7,446	13,181	(NA)	6,104	14,897	55,270	70,167	(NA)	(NA)	(NA)
1904 <sup>2</sup> .....	(NA)	579	(NA)	11,077	4,717	10,370	(NA)	4,012	9,655	27,925	37,580	(NA)	(NA)	(NA)
1899 <sup>2</sup> .....	(NA)	654	(NA)	9,970	3,972	9,401	(NA)	3,483	8,255	22,823	31,078	(NA)	(NA)	(NA)
INDUSTRY 3141.—SHOES, EXCEPT RUBBER														
1963.....	784	1,040	815	201,728	713,577	182,901	334,969	589,369	<sup>6</sup> 1,214,740	1,035,627	<sup>6</sup> 2,249,167	18,470	99	99
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	215,776	742,191	195,415	356,525	609,374	1,215,968	1,095,357	2,312,338	17,673	(NA)	(NA)
1961 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	216,436	718,323	195,216	352,123	584,839	1,177,848	1,050,376	2,233,110	21,279	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	216,340	704,722	195,027	352,506	575,114	1,161,060	1,050,832	2,212,655	15,238	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	219,666	717,004	198,888	366,285	588,812	1,185,045	1,100,983	2,279,564	13,787	(NA)	(NA)
1958.....	872	1,115	887	215,311	662,421	194,314	348,481	542,179	1,086,260	964,289	2,048,857	14,533	99	99
1957 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	222,365	680,055	201,027	362,429	570,649	1,083,996	968,063	2,043,805	(S)	(NA)	(NA)
1956 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	222,841	666,566	202,055	368,670	563,428	1,075,422	951,171	2,018,152	17,258	(NA)	(NA)
1955 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	221,121	628,322	200,782	372,461	524,058	992,238	910,877	1,891,818	16,347	(NA)	(NA)
1954 <sup>2</sup> .....	970	1,196	931	219,375	589,267	199,907	356,681	490,142	942,961	864,967	1,809,127	11,420	99	99
1953 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	232,546	640,360	212,202	385,053	532,810	982,412	966,000	1,948,412	(S)	(NA)	(NA)
1952 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	221,748	585,908	200,925	362,520	492,337	884,772	905,099	1,789,871	(S)	(NA)	(NA)
1951 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	214,800	533,055	194,863	336,987	443,813	815,428	1,031,994	1,847,422	(S)	(NA)	(NA)
1950 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	230,290	532,906	209,889	371,088	448,115	812,113	914,744	1,726,857	(S)	(NA)	(NA)
1949 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	229,857	502,474	210,396	364,062	420,823	737,031	874,607	1,611,638	(S)	(NA)	(NA)
1947 <sup>2</sup> .....	1,077	1,292	(NA)	230,882	496,990	212,213	400,757	423,181	751,528	975,081	1,726,609	(S)	( <sup>8</sup> )	( <sup>8</sup> )
1939 <sup>2 7</sup> .....	(NA)	930	(NA)	(NA)	(NA)	207,767	(NA)	175,384	330,075	369,203	699,278	(NA)	(NA)	(NA)
INDUSTRY 3142.—HOUSE SLIPPERS														
1963.....	149	153	97	11,039	39,782	9,894	17,254	30,382	<sup>6</sup> 64,555	58,869	<sup>6</sup> 123,560	1,100	90	85
1962 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	12,015	42,365	10,626	18,392	31,460	67,678	66,230	133,668	(1,120)	(NA)	(NA)
1961 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	12,278	40,147	10,816	18,094	29,386	67,905	64,358	131,836	(1,159)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,348	38,616	10,024	17,434	28,868	60,072	59,129	119,386	(S)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,457	40,960	10,995	19,237	30,771	65,718	62,824	128,413	(S)	(NA)	(NA)
1958.....	160	164	97	11,520	37,057	10,168	18,046	28,291	59,656	52,552	112,145	590	90	85
1957 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	12,661	38,225	11,188	20,310	28,194	61,048	63,610	123,974	(S)	(NA)	(NA)
1956 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	13,136	38,326	11,702	21,116	28,479	58,478	62,737	121,177	(S)	(NA)	(NA)
1955 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	12,665	35,994	11,235	20,095	27,072	53,762	54,558	106,990	(S)	(NA)	(NA)
1954 <sup>2</sup> .....	170	173	99	10,879	30,065	9,661	16,773	22,911	45,418	45,641	90,760	664	89	87
1947 <sup>2</sup> .....	( <sup>8</sup> )	208	(NA)	9,433	19,889	8,441	18,895	15,713	34,015	33,373	67,388	(NA)	( <sup>8</sup> )	( <sup>8</sup> )
1939 <sup>2 7</sup> .....	(NA)	139	(NA)	(NA)	(NA)	10,243	(NA)	8,253	16,072	19,235	35,307	(NA)	(NA)	(NA)
INDUSTRIES 3141 AND 3142.—SHOES, EXCEPT RUBBER AND HOUSE SLIPPERS														
1963.....	(NA)	1,193	912	212,767	753,359	192,795	352,223	619,751	<sup>6</sup> 1,279,295	1,094,496	<sup>6</sup> 2,372,727	19,570	100	100
1962 <sup>3</sup> .....	(NA)	(NA)	(NA)	227,791	784,556	206,041	374,917	640,834	1,283,646	1,161,587	2,446,006	18,793	(NA)	(NA)
1961 <sup>3</sup> .....	(NA)	(NA)	(NA)	228,714	758,470	206,032	370,217	614,225	1,245,753	1,114,734	2,364,946	22,438	(NA)	(NA)
1960 <sup>3</sup> .....	(NA)	(NA)	(NA)	227,688	743,338	205,051	369,940	603,982	1,221,132	1,109,961	2,332,041	(NA)	(NA)	(NA)
1959 <sup>3</sup> .....	(NA)	(NA)	(NA)	232,123	757,964	209,883	385,522	619,583	1,250,763	1,163,807	2,407,977	(NA)	(NA)	(NA)
1958.....	(NA)	1,279	984	226,831	699,478	204,482	366,527	570,470	1,145,916	1,016,841	2,161,002	15,034	100	100
1957 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	235,026	718,280	212,215	382,739	598,843	1,145,044	1,031,673	2,167,779	18,164	(NA)	(NA)
1956 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	235,977	704,892	213,757	389,786	591,907	1,133,900	1,031,908	2,139,329	17,937	(NA)	(NA)
1955 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	233,786	664,316	212,017	392,556	551,130	1,046,000	965,435	1,998,808	17,716	(NA)	(NA)
1954 <sup>2</sup> .....	(NA)	1,369	1,030	230,254	619,332	209,568	373,455	513,053	988,379	910,608	1,899,887	12,084	100	100

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spec- ial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
	INDUSTRIES 3141 AND 3142.—SHOES, EXCEPT RUBBER AND HOUSE SLIPPERS—Continued													
1953 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	244,044	670,318	222,583	403,390	556,749	1,026,968	(NA)	(NA)	11,954	(NA)	(NA)
1952 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	231,185	614,358	209,082	378,551	514,516	931,995	(NA)	(NA)	9,515	(NA)	(NA)
1951 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	223,760	559,599	202,511	350,549	463,093	854,744	(NA)	(NA)	9,780	(NA)	(NA)
1950 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	241,197	560,615	219,803	388,333	470,016	855,424	(NA)	(NA)	(S)	(NA)	(NA)
1949 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	240,392	530,467	219,866	380,788	442,413	778,336	(NA)	(NA)	12,567	(NA)	(NA)
1947 <sup>2</sup> .....	(NA)	1,500	(NA)	240,315	516,879	220,654	419,652	438,894	785,543	1,008,454	1,793,997	13,344	(NA)	(NA)
1939 <sup>2</sup> .....	(NA)	1,069	(NA)	(NA)	(NA)	218,010	(NA)	183,637	346,147	388,438	734,585	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	1,080	(NA)	230,330	220,352	215,438	(NA)	191,305	352,022	416,305	768,327	(NA)	(NA)	(NA)
1935 <sup>2</sup> .....	(NA)	1,024	(NA)	216,335	200,241	202,113	(NA)	172,349	310,073	333,799	643,872	(NA)	(NA)	(NA)
1933 <sup>2</sup> .....	(NA)	1,132	(NA)	202,795	159,884	190,914	(NA)	142,054	267,122	286,303	553,425	(NA)	(NA)	(NA)
1931 <sup>2</sup> .....	(NA)	1,156	(NA)	(NA)	(NA)	181,374	(NA)	163,271	316,253	337,627	653,880	(NA)	(NA)	(NA)
1929 <sup>2</sup> .....	(NA)	1,341	(NA)	225,235	266,693	205,640	(NA)	222,408	450,868	515,055	965,923	(NA)	(NA)	(NA)
1927 <sup>2</sup> .....	(NA)	1,357	(NA)	223,436	268,434	203,110	(NA)	225,090	450,161	494,553	944,714	(NA)	(NA)	(NA)
1925 <sup>2</sup> .....	(NA)	1,460	(NA)	227,955	267,994	206,992	(NA)	225,788	443,751	481,632	925,383	(NA)	(NA)	(NA)
1923 <sup>2</sup> .....	(NA)	1,606	(NA)	249,565	299,984	225,216	(NA)	250,346	472,621	527,457	1,000,078	(NA)	(NA)	(NA)
1921 <sup>2</sup> .....	(NA)	1,505	(NA)	205,044	244,543	183,502	(NA)	204,954	389,044	478,432	867,476	(NA)	(NA)	(NA)
1919 <sup>2</sup> .....	(NA)	1,449	(NA)	236,224	268,860	211,049	(NA)	210,735	439,772	715,269	1,155,041	(NA)	(NA)	(NA)
1914 <sup>2</sup> .....	(NA)	1,355	(NA)	209,258	128,623	191,555	(NA)	105,695	191,403	310,357	501,760	(NA)	(NA)	(NA)
1909 <sup>2</sup> .....	(NA)	1,343	(NA)	199,629	109,646	185,116	(NA)	92,359	165,163	277,468	442,631	(NA)	(NA)	(NA)
1904 <sup>2</sup> .....	(NA)	1,316	(NA)	158,735	77,766	149,924	(NA)	69,060	122,744	197,363	320,107	(NA)	(NA)	(NA)
1899 <sup>2</sup> .....	(NA)	1,599	(NA)	149,609	66,111	141,830	(NA)	58,441	90,337	168,633	258,970	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: For 1954-1963 figures represent adjusted value added, which is equal to value of shipments (including resales of finished products) less cost of finished products, materials, supplies, fuel, electric energy and contract work, plus the net change in the value of finished products and work-in-process inventories between the beginning and end of the year, without adjustment for price changes. For 1958, however, value of production rather than value of shipments was collected for industries 3141, Footwear, Except Rubber, and 3142, House Slippers. In computing 1958 adjusted value added for these industries, the net change of only work-in-process inventories is included. For years prior to 1954 figures represent unadjusted value added. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Data for Alaska and Hawaii are included.

<sup>3</sup>For 1957 and earlier years estimates with a standard error.

<sup>4</sup>In this industry which contains a very large number of very small establishments, there is a possibility that some of these small establishments may have been misclassified as to industry. This would not affect the statistics other than the number of establishments.

<sup>5</sup>Figures for 1933 and earlier years were obtained by combining the data for two former industries: "Boot and shoe cut stock, not made in boot and shoe factories," and "Boot and shoe cut findings, not made in boot and shoe factories."

<sup>6</sup>See text regarding comparability of 1963 and prior years.

<sup>7</sup>"Footwear, except rubber" and "House slippers" formerly constituted a single classification. The separate figures for 1939-1963 have been combined in order that statistics can be shown for the entire period 1899-1963.

<sup>8</sup>Comparable data are not available due to significant revisions in the 1947 classifications of plants and products in this industry.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3111.—LEATHER TANNING AND FINISHING													
Total.....	525	256	31,417	163,307	27,282	54,556	129,756	273,092	480,507	758,408	6,480	37,130	275,796
New England.....	195	89	9,978	50,532	8,690	17,092	40,017	81,767	159,639	241,749	2,082	11,057	86,012
New Hampshire....	17	15	1,615	7,821	1,427	2,877	6,488	8,747	17,743	27,444	361	1,758	10,971
Massachusetts....	162	60	5,994	32,075	5,190	9,959	24,915	55,148	120,183	174,972	1,197	7,556	63,847
Middle Atlantic....	188	76	8,211	42,725	7,085	13,897	34,088	70,023	117,533	190,739	1,140	11,348	80,149
New York.....	109	30	3,222	16,342	2,814	5,383	13,333	28,271	52,350	81,346	366	4,164	31,700
New Jersey.....	53	26	2,247	12,718	1,934	4,012	10,043	22,150	30,488	52,864	511	2,854	21,341
Pennsylvania.....	26	20	2,742	13,665	2,337	4,502	10,712	19,602	34,695	56,529	263	4,330	27,102
East North Central.	67	48	7,704	44,976	6,632	13,857	35,322	78,591	118,497	196,683	2,058	8,934	69,689
Illinois.....	20	13	2,038	11,950	1,808	3,882	9,803	19,551	33,352	52,863	493	2,303	18,274
Michigan.....	7	5	886	5,173	747	1,533	4,269	9,396	14,684	23,585	362	927	6,439
Wisconsin.....	27	22	3,967	23,920	3,341	7,018	18,012	44,415	61,277	106,000	1,144	4,349	35,201
West North Central.	9	4	603	3,437	525	1,062	2,742	6,178	10,149	16,012	163	541	4,277
South.....	42	30	4,299	18,141	3,808	7,593	14,829	31,389	67,259	100,147	787	4,505	29,684
Delaware.....	7	7	1,086	5,263	886	1,748	4,068	8,447	13,713	21,933	(D)	1,489	10,482
Tennessee.....	10	7	1,103	4,290	971	1,896	3,321	10,127	25,446	34,844	191	( <sup>2</sup> )	( <sup>2</sup> )
West.....	24	9	622	3,496	542	1,055	2,758	5,144	7,430	13,078	250	745	5,985
California.....	17	8	558	3,209	483	944	2,509	4,433	6,623	11,544	228	674	5,528
INDUSTRY 3121.—INDUSTRIAL LEATHER BELTING													
Total.....	83	23	2,870	15,897	2,099	4,198	9,723	32,915	18,954	51,869	742	3,975	36,300
Northeast.....	38	9	846	4,267	646	1,286	2,693	7,886	6,892	14,764	55	1,011	7,893
New York.....	12	2	110	511	86	175	244	600	537	1,146	11	( <sup>2</sup> )	( <sup>2</sup> )
Pennsylvania.....	6	3	186	934	142	268	666	1,921	1,012	2,941	6	198	1,739
East North Central.	14	6	1,151	5,827	924	1,820	4,172	16,558	5,393	21,853	521	2,087	20,665
Illinois.....	5	2	110	437	83	168	274	706	443	1,159	9		
West North Central.	3	1	41	254	26	52	115	388	229	624	6	877	7,742
South and West.....	28	7	832	5,549	503	1,040	2,743	8,083	6,440	14,628	160		
INDUSTRY 3131.—FOOTWEAR CUT STOCK													
Total.....	446	204	14,339	53,420	12,600	23,694	40,867	90,611	138,225	229,253	1,620	18,031	98,380
New England.....	258	122	7,926	30,614	6,865	12,819	22,215	50,941	71,613	122,530	855	9,687	54,606
Maine.....	30	19	1,260	4,374	1,129	2,044	3,295	7,073	6,627	13,703	153	( <sup>2</sup> )	( <sup>2</sup> )
New Hampshire....	35	15	990	3,418	880	1,600	2,730	5,600	9,193	14,799	90	1,138	5,834
Massachusetts....	186	83	5,421	21,586	4,630	8,677	15,331	36,492	54,646	91,023	560	7,213	42,382
Rhode Island.....	4	3	156	848	134	317	544	1,085	792	1,964	19	326	1,518
Middle Atlantic....	100	31	2,152	7,882	1,905	3,614	6,335	12,396	22,371	34,596	191	3,549	18,363
New York.....	75	23	1,432	5,374	1,267	2,389	4,313	8,539	14,547	23,142	137	2,494	12,480
East North Central.	23	11	883	3,289	792	1,553	2,742	5,151	7,526	12,772	86	774	3,981
Ohio.....	5	3	267	1,017	237	496	853	1,681	1,284	2,862	(D)	218	948
Illinois.....	9	5	309	1,106	286	535	968	1,828	2,928	4,919	23	( <sup>2</sup> )	( <sup>2</sup> )
West North Central.	38	28	2,482	8,560	2,217	4,177	6,964	16,961	28,829	46,116	447	2,996	16,566
South Atlantic.....	6	5	190	612	171	321	503	764	1,945	2,850	11		
East South Central.	6	4	518	1,800	487	907	1,592	3,341	4,881	8,240	22	823	3,796
West South Central.	4	-	36	88	32	63	77	126	174	306	2		
Pacific.....	11	3	152	575	131	240	439	931	886	1,843	6	196	1,050
California.....	7	3	136	518	117	212	392	856	678	1,558	2	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3141.—SHOES, EXCEPT RUBBER													
Total.....	1,040	815	201,728	713,577	182,901	334,969	589,369	<sup>3</sup> 1,214,740	1,035,627	<sup>3</sup> 2,249,167	18,470	215,311	1,086,260
New England.....	316	267	70,996	263,517	63,641	113,365	212,094	386,203	340,379	726,099	4,644	76,158	367,640
Massachusetts....	167	136	31,140	121,275	27,554	47,929	96,006	179,289	147,769	326,623	1,816	38,689	196,133
Connecticut.....	15	14	1,583	5,123	1,478	2,739	4,344	7,974	6,890	14,935	107	1,570	6,670
Middle Atlantic....	292	217	39,108	135,621	35,700	66,580	113,359	209,150	203,573	414,851	3,820	44,503	204,628
New York.....	152	96	14,045	52,327	12,563	23,243	42,351	81,617	81,472	163,158	1,563	20,843	101,104
New Jersey.....	13	9	1,112	3,859	1,036	1,420	3,056	5,557	5,187	10,886	69	822	3,967
Pennsylvania.....	127	112	23,951	79,435	22,101	41,917	67,952	121,976	116,914	240,807	2,188	22,838	99,557

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3141.—SHOES, EXCEPT RUBBER—Continued													
East North Central.	110	96	30,753	117,496	27,479	50,691	95,125	221,750	168,199	390,432	2,813	33,929	194,523
Indiana.....	7	6	2,141	8,121	2,021	4,048	7,468	17,497	13,105	30,474	253	1,950	12,870
Illinois.....	35	29	10,750	37,979	9,906	17,675	32,210	77,967	57,176	135,738	464	12,889	74,045
Wisconsin.....	41	38	8,614	34,905	7,183	13,470	25,475	59,288	53,765	113,414	580	9,914	57,248
West North Central.	91	79	22,797	72,689	20,937	37,629	62,929	159,677	120,213	280,213	2,997	29,387	159,663
Minnesota.....	7	6	1,000	4,706	860	1,669	3,048	8,838	6,533	15,152	84	1,057	6,717
Missouri.....	76	69	21,511	67,058	19,844	35,540	59,182	149,459	112,798	262,661	2,892	27,970	151,373
South Atlantic.....	54	40	10,030	31,860	8,991	16,855	25,348	55,096	47,552	99,942	823	28,369	143,729
North Carolina...	8	6	1,227	3,949	996	1,808	2,642	8,489	6,751	14,666	129		
East South Central.	53	51	17,423	58,175	16,368	31,903	51,935	122,922	107,833	229,711	2,601	300	274
Kentucky.....	7	7	2,287	7,696	2,157	4,149	7,043	15,464	11,754	27,281	(D)		
West South Central.	45	31	7,815	23,301	7,307	13,503	20,101	42,339	33,386	75,753	574	300	274
Arkansas.....	17	17	6,031	18,004	5,701	10,740	16,028	33,059	26,075	59,169	300		
Texas.....	28	14	1,784	5,297	1,606	2,763	4,073	9,280	7,311	16,584	274		
West.....	79	34	2,806	10,918	2,478	4,443	8,478	17,603	14,492	32,166	198	2,965	16,077
Hawaii.....	11	3	100	384	87	150	350	609	561	1,165	27	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3142.—HOUSE SLIPPERS													
Total.....	153	97	11,039	39,782	9,894	17,254	30,382	<sup>3</sup> 64,555	58,869	<sup>3</sup> 123,560	1,100	11,520	59,656
New England.....	32	21	2,740	9,414	2,448	4,033	7,073	14,592	14,477	29,100	192	2,887	15,181
Massachusetts....	23	15	2,284	7,742	2,043	3,255	5,820	12,322	12,254	24,573	147	2,382	12,486
Middle Atlantic....	92	58	6,190	23,291	5,627	9,959	18,340	37,758	35,103	72,969	683	6,165	32,831
New York.....	74	43	4,267	15,140	3,847	6,619	11,982	26,242	23,862	49,931	415	4,476	24,377
New Jersey.....	8	8	952	4,776	875	1,753	3,472	6,376	5,551	11,835	145	888	4,729
Pennsylvania.....	10	7	971	3,375	905	1,587	2,886	5,140	5,690	11,203	123	801	3,725
East North Central.	10	7	783	2,713	688	1,185	1,804	4,764	3,125	7,915	85	783	3,359
Wisconsin.....	4	3	194	571	171	282	447	849	782	1,641	22	( <sup>2</sup> )	( <sup>2</sup> )
West North Central.	7	6	842	2,906	724	1,376	2,157	4,972	4,197	9,163	77	941	4,400
South and West.....	12	5	484	1,458	407	701	1,008	2,469	1,967	4,413	63	744	3,885

(D) Withheld to avoid disclosing figures for individual companies.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3111, Leather Tanning and Finishing: New England—Maine, 13 (2,059); Vermont, 1 (100-249); Connecticut, 2 (20-99); East North Central—Ohio, 11 (500-999); Indiana, 2 (100-249); West North Central—Minnesota, 3 (361); Missouri, 5 (100-249); Nebraska, 1 (20-99); South Atlantic—Maryland, 1 (100-249); Virginia, 4 (592); West Virginia, 5 (508); North Carolina, 2 (100-249); South Carolina, 1 (1-19); East South Central—Kentucky, 2 (100-249); West South Central—Louisiana, 1 (1-19); Texas, 4 (103); Mountain—Colorado, 1 (1-19); Utah, 1 (1-19); Pacific—Washington, 2 (1-19); Oregon, 3 (20-99).

SIC 3121, Industrial Leather Belting: New England—New Hampshire, 1 (100-249); Massachusetts, 12 (20-99); Rhode Island, 2 (1-19); Connecticut, 2 (1-19); Middle Atlantic—New Jersey, 3 (284); East North Central—Ohio, 3 (662); Michigan, 4 (100-249); Wisconsin, 2 (250-499); West North Central—Missouri, 3 (20-99); South Atlantic—Delaware, 1 (20-99); Maryland, 1 (1-19); North Carolina, 9 (20-99); South Carolina, 5 (20-99); Georgia, 3 (20-99); West South Central—Louisiana, 1 (1-19); Texas, 1 (1-19); Pacific—California, 7 (518).

SIC 3131, Footwear Cut Stock: New England—Vermont, 2 (20-99); Connecticut, 1 (1-19); Middle Atlantic—New Jersey, 3 (20-99); Pennsylvania, 22 (500-999); East North Central—Indiana, 1 (20-99); Michigan, 1 (20-99); Wisconsin, 7 (100-249); West North Central—Iowa, 1 (1-19); Missouri, 37 (1,000-2,499); South Atlantic—Maryland, 1 (1-19); Virginia, 3 (114); North Carolina, 1 (20-99); Florida, 1 (20-99); East South Central—Kentucky, 2 (20-99); Tennessee, 4 (250-499); West South Central—Oklahoma, 1 (1-19); Texas, 3 (20-99); Pacific—Oregon, 4 (1-19).

SIC 3141, Shoes, Except Rubber: New England—Maine, 74 (10,000 and over); New Hampshire, 60 (10,000 and over); East North Central—Ohio, 20 (7,087); Michigan, 7 (2,161); West North Central—Iowa, 2 (100-249); Nebraska, 2 (20-99); Kansas, 4 (20-99); South Atlantic—Maryland, 11 (1,000-2,499); Virginia, 10 (3,017); West Virginia, 1 (250-499); Georgia, 10 (2,500-4,999); Florida, 14 (500-999); East South Central—Tennessee, 37 (10,000 and over); Alabama, 4 (500-999); Mississippi, 5 (2,005); Mountain—New Mexico, 3 (104); Arizona, 3 (20-99); Pacific—Washington, 3 (20-99); Oregon, 4 (1-19); California, 55 (2,500-4,999).

SIC 3142, House Slippers: New England—Maine, 4 (20-99); Vermont, 1 (1-19); Rhode Island, 1 (20-99); Connecticut, 3 (307); East North Central—Ohio 3 (347); Indiana, 1 (100-249); Illinois, 2 (20-99); West North Central—Minnesota, 1 (20-99); Missouri, 5 (500-999); Kansas, 1 (0); South Atlantic—Maryland, 1 (100-249); Georgia, 1 (20-99); Florida, 1 (1-19); East South Central—Tennessee, 1 (1-19); West South Central—Arkansas, 1 (100-249); Texas, 4 (111); Pacific—Oregon, 1 (0); California, 1 (1-19); Hawaii, 1 (1-19).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in the size ranges) for such States.<sup>3</sup>See text regarding comparability for 1963 and prior years.

TABLE 3. Detailed Statistics: 1963

Item	Leather tanning and finishing (SIC 3111)				Industrial leather belting (SIC 3121)	Footwear cut stock (SIC 3131)	Shoes, except rubber (SIC 3141)	House slippers (SIC 3142)
	Total (SIC 3111)	Tanneries (SIC 3111-11)	Converters (SIC 3111-22)	Contract tanneries (SIC 3111-33)				
Primary product specialization ratio <sup>1</sup> .....	.99	(NA)	(NA)	(NA)	.89	.93	.99	.90
Coverage ratio <sup>2</sup> .....	1.00	(NA)	(NA)	(NA)	.84	.94	.99	.85
Establishments, total.....number..	525	284	61	180	83	446	1,040	153
With 1 to 19 employees.....do....	269	133	50	86	60	242	225	56
With 20 to 99 employees.....do....	166	81	10	75	18	169	214	60
With 100 employees or more.....do....	90	70	1	19	5	35	601	37
Proprietors and working partners.....do....	328	(NA)	(NA)	(NA)	63	376	460	110
All employees (average for the year).....do....	31,417	22,164	306	8,447	2,870	14,339	201,728	11,039
Payroll (all employees), total for year.....\$1,000..	163,307	117,569	5,781	39,957	15,897	53,420	713,577	39,782
Production workers:								
Average for the year.....number..	27,282	19,329	413	7,540	2,099	12,600	182,901	9,894
March.....do....	26,749	18,913	404	7,432	2,074	12,971	185,978	9,240
May.....do....	26,959	19,064	417	7,478	2,128	12,353	180,544	9,703
August.....do....	27,284	19,288	411	7,585	2,129	12,464	184,527	10,604
November.....do....	28,136	20,051	420	7,665	2,065	12,620	180,555	10,029
Man-hours.....1,000..	54,556	38,854	831	14,871	4,198	23,694	334,969	17,254
January-March.....do....	13,436	9,542	199	3,695	1,033	6,056	85,636	3,654
April-June.....do....	13,871	9,884	214	3,773	1,082	5,914	82,359	4,417
July-September.....do....	13,275	9,507	205	3,563	1,030	5,740	83,211	4,643
October-December.....do....	13,974	9,921	213	3,840	1,053	5,984	83,763	4,540
Wages.....\$1,000..	129,756	94,025	2,150	33,581	9,723	40,867	589,369	30,382
Cost of materials, etc., total.....do....	480,507	332,549	109,360	38,598	18,954	138,225	1,035,627	58,869
Materials, parts, containers, and supplies consumed.....do....	397,655	303,226	60,937	33,492	15,591	129,045	983,404	54,695
Cost of resales.....do....	8,177	6,370	1,711	96	2,697	6,310	24,157	701
Fuels consumed.....do....	8,350	6,114	53	2,183	139	543	2,718	147
Electric energy:								
Purchased:								
Quantity.....million kw.-hrs..	291	220	5	66	16	54	367	20
Cost.....\$1,000..	4,694	3,404	82	1,208	227	1,027	7,172	398
Generated less sold.....million kw.-hrs..	78	66	-	12	-	(D)	2	(D)
Contract work.....\$1,000..	61,631	13,435	46,577	1,619	300	1,300	18,176	2,928
Value of shipments (including resales), total.....do....	758,408	533,109	127,744	97,555	51,869	229,253	2,249,167	123,560
Value of resales.....do....	9,095	6,901	1,989	205	3,783	7,972	29,722	946
Value added by manufacture, adjusted.....do....	273,092	196,842	17,212	59,038	32,915	90,611	1,214,740	64,555
Manufacturers' inventories:								
Beginning of year, total.....do....	149,201	119,631	20,353	9,217	7,667	24,310	273,045	12,203
Finished products.....do....	46,085	36,795	8,713	577	3,489	9,596	105,974	5,518
Work-in-process.....do....	63,404	52,110	6,789	4,505	1,839	3,319	50,988	1,421
Materials, supplies, fuel, etc.....do....	39,712	30,726	4,851	4,135	2,339	11,395	116,083	5,264
End of year, total.....do....	140,301	112,807	18,368	9,126	7,726	22,980	268,527	11,927
Finished products.....do....	43,839	35,419	7,945	475	3,566	8,831	106,619	5,599
Work-in-process.....do....	60,841	49,768	6,385	4,688	1,762	3,667	51,543	1,204
Materials, supplies, fuel, etc.....do....	35,621	27,620	4,038	3,963	2,398	10,482	110,365	5,124
Expenditures for plant and equipment, total.....do....	7,003	5,371	170	1,462	771	1,953	20,868	1,155
New, total.....do....	6,480	5,031	164	1,285	742	1,620	18,470	1,100
New structures and additions to plant.....do....	756	620	26	110	75	184	4,225	161
New machinery and equipment.....do....	5,724	4,411	138	1,175	667	1,436	14,245	939
Used plant and equipment.....do....	523	340	6	177	29	333	2,398	55
Selected operating ratios:								
Payroll/Total employment.....	5,198	5,305	7,172	4,730	5,539	3,726	3,537	3,604
Production workers/Total employment.....	.87	.87	.51	.89	.73	.88	.91	.90
Man-hours/Production workers.....	2,000	2,010	2,012	1,972	1,984	1,880	1,831	1,744
Production worker wages/Man-hours.....	2.38	2.42	2.59	2.26	2.33	1.72	1.76	1.76
Cost of materials and payrolls/Total value of shipments....	.85	.84	.90	.81	.67	.84	.78	.80
Cost of materials/Total value of shipments.....	.63	.62	.86	.40	.37	.60	.46	.43
Adjusted value added/Total employment.....	8,692	8,881	21,355	6,989	11,469	6,319	6,022	5,848
Salaries and wages/Adjusted value added.....	.60	.60	.34	.68	.48	.59	.59	.62

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3111.—LEATHER TANNING AND FINISHING											
Establishments.....number..	525	116	82	71	88	78	63	23	3	1	-
All employees:											
Total.....do....	31,417	209	550	1,020	2,769	5,465	10,132	7,918	3,354	(D)	-
Payroll.....\$1,000..	163,307	1,278	2,799	4,969	13,239	26,859	51,010	44,239	18,914	(D)	-
Value added, adjusted.....do....	273,092	5,415	6,517	10,862	22,335	44,823	79,799	75,331	28,010	(D)	-
Value of shipments.....do....	758,408	29,735	28,236	44,207	58,215	126,702	224,858	174,945	71,510	(D)	-
Capital expenditures, new...do....	6,480	58	98	193	555	827	1,875	2,108	766	(D)	-
Subindustry 3111-11.—Tanneries											
Establishments.....number..	284	60	48	25	39	42	48	19	2	1	-
All employees:											
Total.....do....	22,164	103	333	367	1,225	2,938	7,916	9,282	(D)	(D)	-
Payroll.....\$1,000..	117,569	477	1,498	1,592	5,626	14,395	40,207	53,774	(D)	(D)	-
Value added, adjusted.....do....	196,842	1,130	3,174	2,965	10,514	25,592	62,449	91,018	(D)	(D)	-
Value of shipments.....do....	533,109	2,601	8,180	7,943	25,832	70,201	194,658	223,694	(D)	(D)	-
Capital expenditures, new...do....	5,031	34	58	69	241	512	1,647	2,470	(D)	(D)	-
Subindustry 3111-22.—Converters											
Establishments.....number..	61	24	15	11	7	3	1	-	-	-	-
All employees:											
Total.....do....	806	50	90	139	202	325	(D)	-	-	-	-
Payroll.....\$1,000..	5,781	452	755	1,108	1,351	2,115	(D)	-	-	-	-
Value added, adjusted.....do....	17,212	3,738	2,319	3,804	2,200	5,151	(D)	-	-	-	-
Value of shipments.....do....	127,744	26,334	17,806	29,734	17,603	36,267	(D)	-	-	-	-
Capital expenditures, new...do....	164	11	23	32	34	64	(D)	-	-	-	-
Subindustry 3111-33.—Contract Tanneries											
Establishments.....number..	180	32	19	35	42	33	14	4	1	-	-
All employees:											
Total.....do....	8,447	56	127	514	1,342	4,418	(D)	1,990	(D)	-	-
Payroll.....\$1,000..	39,957	349	546	2,269	6,262	21,152	(D)	9,379	(D)	-	-
Value added, adjusted.....do....	59,038	547	1,024	4,093	9,621	31,430	(D)	12,323	(D)	-	-
Value of shipments.....do....	97,555	800	2,250	6,530	14,780	50,434	(D)	22,761	(D)	-	-
Capital expenditures, new...do....	1,285	13	17	92	280	479	(D)	404	(D)	-	-
INDUSTRY 3121.—INDUSTRIAL LEATHER BELTING											
Establishments.....number..	83	31	16	13	14	4	2	2	1	-	-
All employees:											
Total.....do....	2,870	73	106	193	421	289	1,788	(D)	(D)	-	-
Payroll.....\$1,000..	15,897	362	520	1,044	2,371	1,434	10,166	(D)	(D)	-	-
Value added, adjusted.....do....	32,915	823	939	1,665	3,605	2,228	23,655	(D)	(D)	-	-
Value of shipments.....do....	51,869	1,660	1,935	3,483	8,105	3,690	32,996	(D)	(D)	-	-
Capital expenditures, new...do....	742	25	15	21	681	(D)	(D)	(D)	(D)	-	-
INDUSTRY 3131.—FOOTWEAR CUT STOCK											
Establishments.....number..	446	105	66	71	112	57	34	1	-	-	-
All employees:											
Total.....do....	14,339	192	446	1,030	3,697	3,955	5,019	(D)	-	-	-
Payroll.....\$1,000..	53,420	608	1,618	3,695	14,031	15,513	17,955	(D)	-	-	-
Value added, adjusted.....do....	90,611	1,319	2,557	6,583	22,563	24,834	32,755	(D)	-	-	-
Value of shipments.....do....	229,253	3,511	6,886	17,367	60,894	59,863	80,732	(D)	-	-	-
Capital expenditures, new...do....	1,620	42	68	93	388	395	634	(D)	-	-	-

See footnotes at end of table.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963—Continued

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
	INDUSTRY 3141.—SHOES, EXCEPT RUBBER										
Establishments.....number..	1,040	125	43	57	110	104	247	288	62	3	1
All employees:											
Total.....do....	201,728	200	301	807	3,514	7,975	41,678	101,685	38,456	<u>7,112</u>	(D)
Payroll.....\$1,000..	713,577	717	932	2,779	11,461	27,569	144,430	352,065	141,247	<u>32,377</u>	(D)
Value added, adjusted.....do....	1,214,740	1,234	1,416	4,920	17,448	44,221	225,691	635,816	230,294	<u>53,700</u>	(D)
Value of shipments.....do....	2,249,167	2,826	2,622	9,993	38,264	85,010	422,292	1,154,730	445,585	<u>87,845</u>	(D)
Capital expenditures, new...do....	18,470	1200	48	110	335	722	4,835	9,785	2,157	<u>278</u>	(D)
	INDUSTRY 3142.—HOUSE SLIPPERS										
Establishments.....number..	153	32	8	16	30	30	27	9	1	-	-
All employees:											
Total.....do....	11,039	54	52	225	957	2,050	4,127	<u>3,574</u>	(D)	-	-
Payroll.....\$1,000..	39,782	217	125	697	3,344	6,765	14,177	<u>14,457</u>	(D)	-	-
Value added, adjusted.....do....	64,555	449	202	1,077	5,426	10,441	21,669	<u>25,291</u>	(D)	-	-
Value of shipments.....do....	123,560	1,452	356	1,993	13,243	18,760	41,684	<u>46,072</u>	(D)	-	-
Capital expenditures, new...do....	1,100	9	(D)	12	<u>279</u>	(D)	448	<u>352</u>	(D)	-	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

<sup>1</sup>Includes capital expenditures for plants under construction but not in operation which constitute \$100-\$200 thousand of the total for the size class.

TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B+C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3111	Leather tanning and finishing.....1963..	758,408	633,231	5,086	120,091	99	635,754	633,231	2,523	100
	1958..	743,124	631,488	2,484	109,152	100	634,227	631,488	2,739	100
3121	Industrial leather belting.....1963..	51,869	42,457	5,247	4,165	89	50,563	42,457	8,106	84
	1958..	66,560	55,242	6,070	5,248	90	60,111	55,242	4,869	92
3131	Footwear cut stock.....1963..	229,253	202,419	14,146	12,688	93	215,988	202,419	13,569	94
	1958..	256,652	227,515	11,133	18,004	95	239,043	227,515	11,528	95
3141	Shoes, except rubber.....1963..	2,249,167	2,173,992	26,187	48,988	99	2,196,735	2,173,992	22,743	99
	1958 <sup>1</sup> .	2,048,857	1,993,468	20,006	35,383	99	2,013,126	1,993,468	19,658	99
3142	House slippers.....1963..	123,560	108,323	12,295	2,942	90	127,581	108,323	19,258	85
	1958 <sup>1</sup> .	112,145	98,781	11,293	2,071	90	115,700	98,781	16,919	85

Note: See Introduction for an explanation of terms used.

<sup>1</sup>Represents value of production rather than value of shipments (see text).



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)

miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Leather tanning and finishing (SIC 3111)	Other industries
LEATHER TANNING AND FINISHING INDUSTRY				
	Total value of shipments.....	(X)	758,408	(X)
	Primary products.....	635,754	633,231	2,523
31111	Finished cattle hide and kip side leathers.....	397,401	395,686	1,715
31112	Finished calf and whole kip leathers.....	51,921	51,921	-
31113	Finished sheep and lamb leathers.....	69,661	69,661	-
31114	Other finished leathers.....	69,421	(D)	(D)
31115	Rough, russet, and crust leathers.....	23,449	(D)	(D)
31110	Leather finishing and tanning, n.s.k.....	23,901	23,901	-
	Secondary products.....	(X)	5,086	(X)
	Miscellaneous receipts.....	(X)	120,091	(X)
31119	Contract receipts for tanning and finishing leather.....	(X)	99,067	(X)
93000	Other contract receipts.....	(X)	3,547	(X)
	Resales.....	(X)	9,095	(X)
	Other miscellaneous receipts.....	(X)	8,382	(X)
INDUSTRIAL LEATHER BELTING INDUSTRY				
	Total value of shipments.....	(X)	51,869	(X)
31210	Industrial leather belting and packing.....	50,563	42,457	5,579
	Secondary products.....	(X)	5,247	(X)
30695	Mechanical rubber goods, n.e.c.....	(X)	4,306	(X)
	Other secondary products.....	(X)	941	(X)
	Miscellaneous receipts.....	(X)	4,165	(X)
	Resales.....	(X)	3,783	(X)
	Other miscellaneous receipts.....	(X)	382	(X)
FOOTWEAR CUT STOCK INDUSTRY				
	Total value of shipments.....	(X)	229,253	(X)
31310	Boot and shoe cut stock and findings.....	215,988	202,419	3,304
	Secondary products.....	(X)	14,146	(X)
3111-	Leather, tanned and finished.....	(X)	1,311	(X)
30696	Rubber heels and soles.....	(X)	7,326	(X)
30798	Consumer and commercial plastic products, n.e.c.....	(X)	713	(X)
	Other secondary products.....	(X)	4,796	(X)
	Miscellaneous receipts.....	(X)	12,688	(X)
	Resales.....	(X)	7,972	(X)
	Contract and commission receipts.....	(X)	3,235	(X)
	Other miscellaneous receipts.....	(X)	1,481	(X)

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Shoes, except rubber (SIC 3141)	House slippers industry (SIC 3142)	Other industries
FOOTWEAR, EXCEPT RUBBER INDUSTRY					
	Total value of shipments.....	(X)	2,249,167	(X)	(X)
	Footwear, except rubber, total.....	2,196,735	2,173,992	7,489	15,254
31411	Men's dress shoes, including play shoes.....	531,013	524,286	3,533	3,194
31412	Men's work shoes.....	174,934	173,558	(D)	(D)
31413	Youth's and boy's shoes.....	82,179	81,048	(D)	(D)
31414	Women's dress, work and play shoes.....	1,065,523	1,055,946	2,523	7,054
31415	Misses' and children's shoes.....	189,924	188,793	(D)	(D)
31416	Infants' and babies' shoes.....	73,065	72,950	(D)	(D)
31417	All other footwear.....	54,432	51,828	(D)	(D)
31410	Shoes, except rubber, n.s.k.....	25,665	25,583	(D)	(D)
	Secondary products.....	(X)	26,187	(X)	(X)
31420	House slippers.....	(X)	16,853	(X)	(X)
	Other secondary products.....	(X)	29,334	(X)	(X)
	Miscellaneous receipts.....	(X)	48,988	(X)	(X)
	Resales.....	(X)	29,722	(X)	(X)
	Other miscellaneous receipts.....	(X)	19,266	(X)	(X)
		All industries	House slippers (SIC 3142)	Shoes, except rubber (SIC 3141)	Other industries
HOUSE SLIPPERS INDUSTRY					
	Total value of shipments.....	(X)	123,560	(X)	(X)
31420	House slippers.....	127,581	108,323	16,853	2,405
	Secondary products, total.....	(X)	12,295	(X)	(X)
30210	Rubber footwear.....	(X)	3,893	(X)	(X)
31411	Men's dress shoes, including play shoes.....	(X)	3,533	(X)	(X)
31414	Women's dress, work and play shoes.....	(X)	2,523	(X)	(X)
	Other secondary products.....	(X)	2,346	(X)	(X)
	Miscellaneous receipts, including resales.....	(X)	2,942	(X)	(X)

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(X) Not applicable.

<sup>1</sup>Includes the following product class which totals \$2 million or more but is withheld to avoid disclosing individual company figures: 3021, Rubber footwear.

<sup>2</sup>Includes the following product class which totals \$2 million or more but is withheld to avoid disclosing individual company figures: 39492, Other sporting and athletic goods.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3111- --	TANNED, CURRIED, AND FINISHED LEATHER, TOTAL <sup>1</sup> .....	.....	(X)	635,754	(X)	634,227
31111 --	Finished cattle hide and kip side leathers, total.....	.....	(X)	397,401	(X)	411,344
	Grains, except offal and welting leather (heads, shoulders, bellies, etc.):					
	Sole leather:					
31111 11	Vegetable tanned (backs, bends, and sides).....	1,000 lbs.....	91,919	46,289	109,991	48,424
31111 13	Chrome or retan (backs, bends, and sides).....	1,000 sq. ft..	12,702	6,223	17,010	6,509
31111 24	Belting and mechanical leather.....	1,000 lbs.....	8,975	7,449	6,020	5,190
31111 33	Bag, case, and strap leather (sides).....	1,000 sq. ft..	40,877	19,200	41,563	17,633
31111 35	Upholstery leather - top grains and machine buffs (hides).....	.....do.....	38,812	18,586	35,097	14,957
31111 37	Upper leather, excluding patent (sides).....	.....do.....	509,419	216,283	551,488	205,465
31111 41	Patent leather (sides).....	.....do.....	28,511	18,299	51,359	23,822
31111 45	Garment leather (sides).....	.....do.....	9,407	3,652	20,011	6,478
31111 49	Other grains, including flat and handbag leather, and lining leather (sides).....	.....do.....	40,558	15,578	(NA)	<sup>2</sup> 12,309
	Offal (heads, shoulders, bellies, etc.) except splits and welting leather:					
	Sole leather:					
31111 51	Vegetable tanned.....	1,000 lbs.....	31,733	8,483	50,578	15,133
31111 53	Chrome or retan.....	1,000 sq. ft..	21,750	5,197	3,204	1,108
31111 59	Other offal, including waist belt leather.....	.....do.....	8,165	3,587	(NA)	<sup>2</sup> 7,841
31111 60	Welting leather grains and offal.....	1,000 lbs.....	3,964	1,071	4,203	1,320
	Finished splits, including shoulder splits, deep buffs, buffing and fleshers:					
31111 61	Bottom stock.....	1,000 sq. ft..	4,219	987	22,315	4,997
31111 63	Upper.....	.....do.....	32,522	6,704	49,933	12,790
31111 65	Lining.....	.....do.....	67,824	11,240	76,105	15,048
31111 69	Other including glove and upholstery.....	.....do.....	43,028	6,490	<sup>2</sup> 41,432	<sup>2</sup> 8,921
31111 00	Finished cattle hide and kip side leathers, n.s.k.....	.....	(X)	2,083	(X)	3,399
31112 00	Finished all calf and whole kip leathers.....	1,000 sq. ft..	69,888	51,921	83,612	62,643
31113 --	Finished sheep and lamb leather, total.....	.....do.....	234,218	69,661	228,263	56,726
31113 12	Shoe.....	.....do.....	76,361	19,225	56,915	13,747
31113 31	Garment.....	.....do.....	113,282	35,484	87,242	22,226
31113 39	Other, including glove, fleshers, and skivers.....	.....do.....	41,636	14,078	<sup>2</sup> 70,462	<sup>2</sup> 15,044
31113 51	Shearlings.....	.....do.....	2,936	874	13,644	5,709
31113 00	Finished sheep and lamb leather, n.s.k.....	.....do.....	130,302	69,421	(X)	(X)
31114 --	Other finished leathers, n.e.c., total.....	.....do.....	68,362	38,506	150,465	69,156
	Goat and kid leathers:					
31114 11	Upper.....	.....do.....	10,358	4,300	69,941	35,119
31114 19	Lining and other.....	.....do.....	6,681	3,057	<sup>2</sup> 23,537	<sup>2</sup> 8,320
31114 20	All cabretta leathers.....	.....do.....	8,454	6,265	12,409	5,365
31114 35	Horse, colt, mule, ass, and pony leathers.....	.....do.....	33,184	15,555	<sup>2</sup> 18,160	<sup>2</sup> 9,607
31114 59	Other animal leathers.....	.....do.....	<sup>3</sup> 3,263	1,738	<sup>2</sup> 24,162	<sup>2</sup> 9,708
31114 00	Other finished leathers, n.e.c, n.s.k.....	.....do.....			2,256	1,037
31115 --	Rough, russet and crust leather (not finished in the reporting establishment), total.....	.....	(X)	23,449	(X)	26,726
31115 20	Grains and offal (heads, shoulders, bellies, etc.).....	.....	(X)	10,726	(X)	<sup>2</sup> 11,454
31115 51	Splits, including shoulder splits, deep buffs, buffing, and fleshers.....	.....	(X)	12,723	(X)	15,272
31110 00	All other finished and rough leathers, n.s.k.....	.....	(X)	23,901	(X)	7,632
31119 11	Receipts for contract finishing and tanning done for others on their materials.....	.....	(NA)	<sup>4</sup> 99,067	(X)	<sup>4</sup> 83,855

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Value of shipments including interplant transfers (\$1,000)	
		1963	1958
3121- --	INDUSTRIAL LEATHER BELTING AND PACKING, TOTAL.....	50,563	60,111
31210 13	Industrial leather belting.....	8,521	9,711
	Leather packings, oil and grease retainers.....	33,752	41,565
31210 61	Leather packings.....	7,620	8,022
31210 71	Leather oil and grease retainers, including seals.....	26,132	33,543
31210 98	Other industrial leather products made wholly or partly of leather, including textile leathers but excluding gaskets and washers.....	8,290	8,835

Product code	Product	Unit of measure	1963				1958			
			Total shipments including interplant transfers		Transfers to other plants of the same company		Total shipments including interplant transfers		Transfers to other plants of the same company	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)	Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3131- --	BOOT AND SHOE CUT STOCK AND FINDINGS, TOTAL <sup>6</sup> .....		(X)	215,988	(X)	35,368	(X)	239,043	(X)	(NA)
	Boot and shoe cut stock:									
	Outer soles:									
31310 11	Leather.....	1,000 doz. prs.	6,636	35,053	1,745	11,730	9,484	44,797	3,099	18,650
31310 15	Other, except rubber, elastomer resin, and plastic <sup>6</sup> .....	...do....								
	Innersoles:									
31310 17	Leather.....	...do....	2,873	9,358	4,542	7,087	5,531	15,296	2,441	7,615
31310 18	Other <sup>6</sup> .....	...do....	16,879	14,324						
	Heels:									
31310 21	Leather.....	...do....	8,605	12,622	1,319	2,083	4,383	6,657	622	887
31310 23	Other, except rubber, elastomer resin, and plastic <sup>6</sup> .....	...do....	5,000	7,049						
31310 29	Counters.....	...do....	28,176	14,065	4,020	1,940	23,795	11,763	8,988	8,590
31310 41	Box toes.....	...do....	27,674	8,006						
31310 45	Taps.....	...do....	771	3,265	6,620	1,789	1,192	4,490	43	51
	Other cut stock:									
31310 48	Leather.....	.....	(X)	5,055	(X)	440	(X)	6,129	(X)	623
31310 49	Other <sup>6</sup> .....	.....	(X)	10,845	(X)	171	(X)	14,111	(NA)	(NA)
31310 63	Findings, boot and shoe:									
	Wood heel blocks, made for sale as such.....	1,000 doz. prs.	2,018	3,917	2,415	7,723	4,822	9,998	(D)	(D)
	Finished wood heels:									
31310 65	Manufactured complete in your plant.....	...do....	3,147	9,629	2,415	7,723	2,072	7,763	(D)	(D)
31310 66	Finished from purchased blocks.....	...do....	3,486	14,024						
31310 67	Shanks.....	...do....	22,962	6,441	1,319	2,083	19,515	5,922	(D)	(D)
31310 68	Welting (equivalent 1/2-inch wide).....	1,000 lin. yds.	109,222	9,623						
31310 69	Other findings.....	.....	(X)	38,539	(X)	2,405	(X)	36,247	(NA)	(NA)
31310 00	Footwear cut stock, n.s.k.....	.....	(X)	14,173	(X)	(X)	(X)	24,176	(X)	(X)

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (1,000 pairs)	Value (\$1,000)	Quantity (1,000 pairs)	Value (\$1,000)
3141- --	SHOES, EXCEPT RUBBER, TOTAL.....	524,170	2,196,735	524,276	112,013,126
31411 01	Men's dress shoes, including play shoes.....	83,798	531,013	77,616	114,72,469
31412 10	Men's work shoes.....	26,714	174,934	24,916	114,6,860
31413 07	Youths' and boys' shoes.....	22,172	82,179	23,548	118,1,774
31414 10	Women's dress, work, and play shoes.....	275,704	1,065,523	279,462	119,96,402
31415 10	Misses' and children's shoes.....	65,520	189,924	69,766	119,2,256
31416 01	Infants' and babies' shoes.....	31,660	73,065	36,470	117,6,181
31417 10	Other footwear (except rubber footwear, shoes with skates attached, or slippers).....	12,477	54,432	12,498	114,7,184
31410 00	Footwear, n.s.k.....	36,125	25,665	(X)	(X)
31420 61	HOUSE SLIPPERS, TOTAL.....	79,785	127,581	70,865	111,5,700

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Type of footwear	1963, by type of construction (1,000 pairs) <sup>1 2</sup>										
	Total	Cemented, excluding slip-lasted	Slip-lasted	Welt, including Silhouwelt	McKay, including Littleway	Stitch-down	Soft sole	Turn or turned	Vulcanized, including injection molded <sup>1 3</sup>	Other constructions (prewelt, nailed, etc.)	Construction not specified
SHOES AND SLIPPERS, EXCEPT RUBBER, TOTAL.....	604,328	349,820	28,378	86,839	25,306	23,950	33,667	4,397	15,013	9,108	27,850
Shoes, sandals and playshoes, total.....	509,722	(D)	22,795	84,535	(D)	21,366	5,887	1,025	15,013	7,326	17,290
Men's, total.....	110,703	(D)	1,695	59,931	(D)	(D)	(D)	-	(D)	1,533	4,230
Men's, other than work.....	82,547	28,104	1,695	38,757	5,009	4,238	(D)	-	1,227	(D)	2,644
Men's work:											
Less than 6" high.....	11,061	(D)	-	7,361	(D)	(D)	-	-	(D)	(D)	1,586
6" high and over.....	17,095	(D)	-	13,813	435	843	-	-	1,449	(D)	-
Youths' and boys'.....	24,043	8,536	-	5,499	(D)	3,818	-	-	3,533	(D)	1,855
Women's.....	275,186	224,145	18,997	5,967	13,611	(D)	1,325	(D)	1,240	2,067	7,569
Misses'.....	35,539	23,234	1,150	3,096	1,049	2,564	(D)	-	4,041	(D)	45
Children's.....	30,739	15,079	522	5,611	128	5,663	(D)	-	1,784	(D)	1,434
Infants' and babies'.....	33,512	13,322	431	4,431	(D)	3,873	4,140	(D)	(D)	3,021	2,157
Athletic shoes.....	9,753	(D)	-	470	2,619	535	-	-	-	(D)	5,658
Slippers for housewear, total.....	77,619	32,439	5,583	816	(D)	1,822	27,580	3,310	-	(D)	4,346
Men's, youths', and boys'.....	15,614	7,374	362	536	(D)	1,362	3,977	(D)	-	(D)	369
Women's.....	49,431	21,960	4,408	(D)	-	(D)	16,799	1,358	-	(D)	3,845
Misses', children's, infants', and babies'.....	12,574	3,105	813	(D)	-	(D)	6,804	(D)	-	350	132
All other footwear.....	7,234	(D)	-	1,018	1,077	(D)	(D)	(D)	-	58	556

Product	By type of construction (1,000 pairs) <sup>1 4</sup>		Product	By type of construction (1,000 pairs) <sup>1 4</sup>	
	1963	1958		1963	1958
SHOES AND SLIPPERS, EXCEPT RUBBER, TOTAL.....	604,328	595,141	Misses' shoes, total.....	35,539	1638,631
Men's shoes, other than work, total.....	82,547	77,616	Welt, including Silhouwelt.....	3,096	5,641
Welt, including Silhouwelt.....	38,757	58,321	Cemented, excluding slip-lasted.....	23,234	16,384
McKay, including Littleway.....	5,009	7,538	Stitchdown.....	2,564	14,655
Slip-lasted.....	1,695	328	Other constructions, including construction n.s.k.....	6,645	1,951
Cemented, excluding slip-lasted.....	28,104	4,810	Children's shoes, total.....	30,739	31,135
Other constructions, including construction n.s.k.....	8,982	156,619	Welt, including Silhouwelt.....	5,611	6,569
Men's work shoes, less than 6" high, total.....	11,061	8,871	Cemented, excluding slip-lasted.....	15,079	10,793
Welt, including Silhouwelt.....	7,361	7,615	Stitchdown.....	5,663	11,641
McKay, including Littleway.....	3,700	683	Other constructions, including construction n.s.k.....	4,386	2,132
Other constructions, including construction n.s.k.....		573	Infants' and babies' shoes, total.....	33,512	36,470
Men's work shoes, 6" high and over, total.....	17,095	16,045	Welt, including Silhouwelt.....	4,431	9,732
Welt, including Silhouwelt.....	13,813	13,208	Stitchdown.....	3,873	10,841
McKay, including Littleway.....	435	1,116	Other constructions, including construction n.s.k.....	25,208	15,897
Vulcanized, including injection molded.....	1,449	247	Athletic shoes, total.....	9,753	175,929
Other constructions, including construction n.s.k.....	1,398	1,474	All other footwear, except slippers.....	7,234	176,569
Youths' and boys' shoes, total.....	24,043	23,548	Men's, youths', and boys' slippers, total.....	15,614	15,903
Welt, including Silhouwelt.....	5,499	11,596	Cemented, excluding slip-lasted.....	7,374	6,501
Stitchdown.....	3,818	8,482	Stitchdown.....	1,362	2,625
McKay, including Littleway.....	14,726	2,040	Soft sole.....	3,977	4,135
Other constructions, including construction n.s.k.....		1,430	Turn or turned.....	2,901	824
Women's shoes, total.....	275,186	16279,462	Other construction, including construction n.s.k.....		1,818
Welt, including Silhouwelt.....	5,967	18,730	Women's slippers, total.....	49,431	43,865
McKay, including Littleway.....	13,611	20,459	Turn or turned.....	1,358	780
Slip-lasted.....	18,997	33,879	McKay, including Littleway.....	-	1,269
Cemented, excluding slip-lasted.....	224,145	187,410	Slip-lasted.....	4,408	5,807
Other constructions, including construction n.s.k.....	12,466	18,984	Cemented, excluding slip-lasted.....	21,960	12,596
			Soft sole.....	16,799	16,512
			Other constructions, including construction n.s.k.....	4,906	6,901
			Misses', children's, infants', and babies' slippers, total.....	12,574	1711,097

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

Footnotes continued on next page.

Footnotes for table 6A-31A—Continued

<sup>1</sup>Represents the quantity and value of shipments of products made by or for companies from their own materials. See text for more detailed explanation.

<sup>2</sup>For this product, more detailed data were collected for 1958. This information is shown in the 1958 Census of Manufactures Volume.

<sup>3</sup>Quantity estimated based on the quantity-value relationship reported for other products of the product class.

<sup>4</sup>Contract receipts are not included in the total shown for tanned, curried, and finished leather. For 1963, contract receipts include all receipts for tanning and finishing done for others on their materials regardless of the industry classification of the establishments. For 1958, contract receipts include all receipts for contract work done for others on their materials by establishments classified in industry 3111, Leather Tanning and Finishing.

<sup>5</sup>For 1958, product code 3121013 includes the following: Flat leather belting, \$5,136 thousand; Other leather belting, \$2,879 thousand; and Industrial leather belting, not specified by kind, \$1,696 thousand. Data for these products were not collected separately for 1963.

<sup>6</sup>Figures exclude footwear and cut stock and findings made from rubber and elastomer resins and plastics which are not primary to industry 3131. Data on the shipments of rubber and elastomer resin footwear cut stock are included with the figures for industry 3069, Fabricated Rubber Products, n.e.c.; footwear cut stock and findings made from plastics are included with figures for industry 3079, Miscellaneous Plastic Products.

<sup>7</sup>For 1958, includes 1,320 thousand dozen pairs of leather counters valued at \$1,791 thousand, and 22,475 thousand dozen pairs of other counters valued at \$9,972 thousand. Data for these products were not collected separately for 1963.

<sup>8</sup>For 1958, includes 335 thousand dozen pairs of leather counters valued at \$488 thousand, and 3,653 thousand dozen pairs of counters of other materials valued at \$1,102 thousand. Data for these products were not collected separately for 1963.

<sup>9</sup>For 1958, includes 859 thousand dozen pairs of midsoles valued at \$2,246 thousand; 6,549 thousand dozen pairs of heel lifts and top lifts valued at \$2,458 thousand; and upper (vamps, quarters, tips, and tongues, etc.) valued at \$3,305 thousand. Data for these products were not collected separately for 1963.

<sup>10</sup>For 1958, includes 1,660 thousand dozen pairs of platforms, valued at \$2,017 thousand, for which data were not collected separately for 1963.

<sup>11</sup>For 1958, represents value of production (see text).

<sup>12</sup>The constructions shown in this table relate to the method of outersole attachment. In addition to those specified, companies were asked to report two additional categories: Moccasins with outersole attached, and moccasins having no line of demarcation between the sole and upper. An investigation showed that a substantial number of companies producing moccasins with outersole attached had included them with cemented, welt, etc., depending on the method of attachment of the outersole. It was also apparent that moccasins having no line of demarcation between the sole and upper were not completely reported. Figures reported for these two categories, therefore, have been included in the "construction not specified" column, by type of footwear.

<sup>13</sup>Production data on footwear with sole vulcanized to fabric upper, including sneakers, are presented in the 1963 Census of Manufactures report on rubber footwear, SIC Code 3021.

<sup>14</sup>The constructions listed are those for which separate data are available for 1958. More detailed information for 1963 for the "other constructions" category is shown above.

<sup>15</sup>For 1958, includes 1,657 thousand pairs of men's play shoes for which separate data were not collected by type of construction.

<sup>16</sup>For 1958, figures for misses' play shoes are included with those for women's shoes. For 1963, they are included with misses'.

<sup>17</sup>Data by method of construction are not available for 1958.

TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

Product code	Product and year	Indexes (1954 = 100)		Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value			Production	Unit value
3111	Tanned, curried, and finished leather <sup>1</sup> .....1963..	90	113	3141	Shoes, except rubber <sup>2</sup> .....1963..	112	111
	1958..	99	103		1958..	110	103
31111	Finished cattle hide and kip side leathers.....1963..	94	110	31411	Men's dress shoes, including play shoes.....1963..	112	108
	1958..	106	101		1958..	104	103
31112	Finished all calf and whole kip leathers.....1963..	75	108	31412	Men's work shoes.....1963..	125	127
	1958..	90	109		1958..	117	114
31113	Finished sheep and lamb leather....1963..	98	115	31413	Youths' and boys' shoes.....1963..	111	111
	1958..	95	96		1958..	121	104
3114	Other finished leathers, n.e.c.....1963..	62	130	31414	Women's dress, work and play shoes.....1963..	110	111
	1958..	72	113		1958..	112	102
3131	Boot and shoe cut stock and findings.....1963..	79	113	31415	Misses' and childrens' shoes.....1963..	95	104
	1958..	89	111		1958..	103	99
314	Shoes, except rubber, and house slippers <sup>2</sup> .....1963..	113	110	31416	Infants' and babies' shoes.....1963..	89	115
	1958..	111	102		1958..	103	104
				31417	Other footwear (except rubber, shoes with skates attached, or slippers).....1963..	145	116
					1958..	158	94
				3142	House slippers.....1963..	146	94
					1958..	131	95

n.e.c. Not elsewhere classified.

<sup>1</sup>Adjusted to include rough, russet and crush leather (product class 31115), also all other leathers not specified by kind.

<sup>2</sup>Adjusted to include footwear not specified by kind.



TABLE 6C. Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3111-	Leather tanning and finishing.....\$1,000..	635,754	656,253	650,233	682,499	765,911	634,227	618,177	1,004,970
31111	Finished cattle hide and kip side leathers.....do....	397,401	449,748	440,874	450,989	497,676	411,344	383,080	646,105
31112	Finished calf and whole kip leathers:								
	Quantity.....1,000 sq. ft..	69,888	(NA)	(NA)	(NA)	(NA)	83,612	92,604	127,238
	Value.....\$1,000..	51,921	56,600	60,845	56,515	63,421	62,643	63,599	107,747
31113	Finished sheep and lamb leathers:								
	Quantity.....1,000 sq. ft..	234,218	(NA)	(NA)	(NA)	(NA)	228,263	236,448	314,787
	Value.....\$1,000..	69,661	59,017	58,533	(S)	(S)	56,726	62,156	91,674
31114	Other finished leathers:								
	Quantity.....1,000 sq. ft..	130,302	(NA)	(NA)	(NA)	(NA)	150,465	(NA)	(NA)
	Value.....\$1,000..	69,421	59,069	60,647	(S)	(S)	69,156	85,408	146,920
31115	Rough, russet, and crust leathers....do....	23,449	(S)	(S)	(S)	(S)	26,726	23,934	12,524
31110	Leather finishing and tanning,n.s.k.do....	23,901	(S)	(S)	(S)	(S)	7,632	-	-
31119	Receipts for contract finishing and tanning <sup>2</sup> .....do....	99,067	(NA)	(NA)	(NA)	(NA)	83,855	70,282	53,613
31210	Industrial leather belting and packing.....do....	50,563	78,400	67,756	74,507	83,583	60,111	(NA)	(NA)
31310	Footwear cut stock and findings.....do....	215,988	256,736	264,827	263,402	275,462	239,043	(NA)	(NA)
3141-	Footwear, except rubber:								
	Quantity.....1,000 pairs..	524,170	(X)	(X)	(X)	(X)	<sup>3</sup> 524,276	473,355	437,928
	Value.....\$1,000..	2,196,735	2,195,987	2,104,976	2,097,259	2,229,269	2,013,126	1,779,134	1,712,761
31411	Men's dress shoes, including play shoes:								
	Quantity.....1,000 pairs..	83,798	(X)	(X)	(X)	(X)	<sup>3</sup> 77,616	72,972	<sup>4</sup> 85,015
	Value.....\$1,000..	531,013	507,110	473,877	462,110	533,322	472,469	438,608	466,972
31412	Men's work shoes:								
	Quantity.....1,000 pairs..	26,714	(X)	(X)	(X)	(X)	<sup>3</sup> 24,916	21,257	<sup>4</sup> 21,786
	Value.....\$1,000..	174,934	191,462	170,701	156,743	174,939	146,860	109,993	97,523
31413	Youth's and boy's shoes:								
	Quantity.....1,000 pairs..	22,172	(X)	(X)	(X)	(X)	<sup>3</sup> 23,548	19,563	<sup>4</sup> 19,822
	Value.....\$1,000..	82,179	96,468	90,150	88,397	94,869	81,774	65,088	55,938
31414	Women's dress, work, and play shoes:								
	Quantity.....1,000 pairs..	275,704	(X)	(X)	(X)	(X)	<sup>3</sup> 279,462	246,803	<sup>4</sup> 183,811
	Value.....\$1,000..	1,065,523	1,101,000	1,059,536	1,070,366	1,088,229	996,402	874,280	784,490
31415	Misses' and children's shoes:								
	Quantity.....1,000 pairs..	65,520	(X)	(X)	(X)	(X)	<sup>3</sup> 69,766	68,304	<sup>4</sup> 53,083
	Value.....\$1,000..	189,924	178,861	179,870	185,910	198,887	192,256	188,276	139,811
31416	Infants' and babies' shoes:								
	Quantity.....1,000 pairs..	31,660	(X)	(X)	(X)	(X)	<sup>3</sup> 36,470	36,394	<sup>4</sup> 35,038
	Value.....\$1,000..	73,065	60,589	72,016	78,675	83,408	76,181	71,035	57,176
31417	All other footwear:								
	Quantity.....1,000 pairs..	12,477	(X)	(X)	(X)	(X)	<sup>3</sup> 12,498	8,062	<sup>4</sup> 7,594
	Value.....\$1,000..	54,432	60,497	58,826	55,328	55,615	47,184	31,854	32,878
31410	Footwear, n.s.k.:								
	Quantity.....1,000 pairs..	56,125	(X)	(X)	(X)	(X)	(X)	(X)	(X)
	Value.....\$1,000..	25,665	(X)	(X)	(X)	(X)	(X)	(X)	(X)
31420	Houseslippers:								
	Quantity.....1,000 pairs..	79,785	(X)	(X)	(X)	(X)	<sup>3</sup> 70,865	56,000	43,426
	Value.....\$1,000..	127,581	131,527	126,928	115,922	129,679	115,700	92,241	75,390

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>2</sup>Contract receipts are not included in the total shown for Leather tanning and finishing. For 1963, contract receipts include all receipts for tanning and finishing done for others on their materials regardless of the industry classification of the establishments. Prior to 1963, contract receipts include all receipts for contract work done for others on their materials by establishments classified in industry 3111, Leather Tanning and Finishing.

<sup>3</sup>1958 represents value of production rather than value of shipments (see text).

<sup>4</sup>The figures shown for 1947 are not completely comparable due to differences in reporting by manufacturers of sandal-type shoes. The 1947 data for play shoes, which are not included in the product class detail, are as follows: Men's, youths', and boys', 740 thousand pairs, \$2,429 thousand; Women's and misses', 29,510 thousand pairs, \$73,294 thousand; Children's, 773 thousand pairs, \$1,236 thousand; Infants' and babies', 756 thousand pairs, \$1,014 thousand.

<sup>5</sup>Quantity estimated using the average unit value reported by other shoe producing companies reporting both quantity and value of shipments.

**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments 1963 <sup>1</sup>	Value of production 1958	Product class and geographic area	Value of shipments 1963 <sup>1</sup>	Value of production 1958
	1963 <sup>1</sup>	1958						
<b>FINISHED CATTLE HIDE AND KIP SIDE LEATHERS (31111)</b>			<b>MEN'S WORK SHOES (31412)</b>			<b>MISSES' AND CHILDREN'S SHOES (31415)</b>		
U.S. total.....	397,401	411,344	U.S. total.....	<sup>3</sup> 174,934	<sup>3</sup> 146,860	U.S. total.....	<sup>3</sup> 189,924	<sup>3</sup> 192,256
New England.....	95,626	121,244	New England.....	39,916	39,577	New England.....	36,560	37,279
New Hampshire.....	9,355	12,096	Maine.....	16,047	12,275	Maine.....	5,429	6,098
Massachusetts.....	69,118	97,868	New Hampshire.....	9,070	3,421	New Hampshire.....	6,966	11,066
Middle Atlantic.....	84,441	103,974	Massachusetts.....	14,799	23,881	Massachusetts.....	20,682	16,820
New York.....	32,357	44,773	Middle Atlantic.....	19,313	22,509	Connecticut.....	3,483	3,295
New Jersey.....	23,435	25,180	East North Central.....	23,188	23,219	Middle Atlantic.....	55,749	68,936
Pennsylvania.....	28,649	34,021	Wisconsin.....	17,569	14,783	Pennsylvania.....	41,661	45,759
East North Central.....	131,053	119,583	West North Central.....	33,982	( <sup>2</sup> )	East North Central.....	16,672	19,050
Illinois.....	36,539	34,226	South.....	55,748	( <sup>2</sup> )	Wisconsin.....	11,379	11,416
Michigan.....	15,187	13,784	Tennessee.....	21,304	( <sup>2</sup> )	West North Central.....	27,373	23,218
Wisconsin.....	76,179	59,543	Pacific.....	2,787	2,519	South and West.....	53,570	( <sup>2</sup> )
West North Central.....	12,250	9,241	<b>YOUTH'S AND BOYS' SHOES (31413)</b>			Maryland.....	2,325	( <sup>2</sup> )
South.....	63,279	( <sup>2</sup> )	U.S. total.....	<sup>3</sup> 82,179	<sup>3</sup> 81,774	Virginia.....	2,472	2,611
West Virginia.....	10,984	9,843	New England.....	14,866	15,970	Tennessee.....	24,404	16,313
Tennessee.....	27,291	( <sup>2</sup> )	Maine.....	3,494	1,833	Arkansas.....	18,105	14,460
West.....	10,752	( <sup>2</sup> )	Massachusetts.....	9,808	11,299	Texas.....	1,267	( <sup>2</sup> )
<b>FINISHED SHEEP AND LAMB LEATHERS (31113)</b>			Middle Atlantic.....	18,456	24,474	<b>INFANTS' AND BABIES' SHOES (31416)</b>		
U.S. total.....	69,661	56,726	Pennsylvania.....	12,782	13,586	U.S. total.....	73,065	76,187
New England.....	47,163	34,707	North Central.....	25,431	( <sup>2</sup> )	New England.....	13,074	15,847
Middle Atlantic.....	15,367	16,831	Wisconsin.....	2,481	2,980	Massachusetts.....	10,901	12,056
North Central, South, and West.....	7,131	( <sup>2</sup> )	South and West.....	23,426	( <sup>2</sup> )	Middle Atlantic.....	19,074	21,047
<b>OTHER FINISHED LEATHERS, N.E.C. (31114)</b>			Maryland.....	2,374	( <sup>2</sup> )	Pennsylvania.....	13,039	13,884
U.S. total.....	69,421	69,156	Georgia.....	3,628	5,594	East North Central.....	15,176	18,580
New England.....	17,721	12,863	Tennessee.....	10,265	( <sup>2</sup> )	Illinois.....	10,328	12,715
Middle Atlantic.....	25,050	31,025	Arkansas.....	1,332	( <sup>2</sup> )	West North Central.....	10,760	9,865
New York.....	9,851	11,700	<b>WOMEN'S DRESS, WORK, AND PLAY SHOES (31414)</b>			Missouri.....	10,760	( <sup>2</sup> )
North Central.....	10,828	( <sup>2</sup> )	U.S. total.....	<sup>2</sup> 1,065,523	<sup>3</sup> 996,402	South and West.....	14,981	( <sup>2</sup> )
South and West.....	15,822	( <sup>2</sup> )	New England.....	396,386	378,157	Tennessee.....	5,714	( <sup>2</sup> )
<b>MEN'S DRESS SHOES, INCLUDING PLAY SHOES (31411)</b>			Maine.....	123,911	111,035	Arkansas.....	5,971	( <sup>2</sup> )
U.S. total.....	<sup>3</sup> 531,013	<sup>3</sup> 472,469	New Hampshire.....	111,301	89,398	<b>ALL OTHER FOOTWEAR, EXCEPT RUBBER AND SLIPPERS (31417)</b>		
New England.....	185,770	185,721	Massachusetts.....	156,347	172,281	U.S. total.....	<sup>3</sup> 54,432	<sup>3</sup> 47,184
Maine.....	48,867	33,625	Connecticut.....	4,827	( <sup>2</sup> )	New England.....	23,720	20,056
Massachusetts.....	97,444	107,407	Middle Atlantic.....	195,191	186,795	Maine.....	10,497	( <sup>2</sup> )
Middle Atlantic.....	60,215	57,800	New York.....	75,871	91,998	Massachusetts.....	9,236	16,334
Pennsylvania.....	29,702	( <sup>2</sup> )	New Jersey.....	5,900	5,477	Middle Atlantic.....	11,754	12,994
East North Central.....	150,944	115,966	Pennsylvania.....	113,420	89,320	Pennsylvania.....	7,132	( <sup>2</sup> )
Wisconsin.....	60,934	57,338	East North Central.....	161,350	149,818	East North Central.....	4,595	8,089
South Atlantic.....	23,955	15,156	Ohio.....	68,729	70,055	West North Central.....	2,658	1,629
Maryland.....	2,951	2,363	Illinois.....	56,612	58,412	Minnesota.....	1,432	( <sup>2</sup> )
East South Central.....	68,758	( <sup>2</sup> )	West North Central.....	148,330	157,573	South.....	10,171	( <sup>2</sup> )
All other divisions.....	41,371	( <sup>2</sup> )	Missouri.....	145,955	155,245	Texas.....	7,326	( <sup>2</sup> )
			South Atlantic.....	30,846	24,785	West.....	1,534	( <sup>2</sup> )
			Maryland.....	6,318	7,619			
			East South Central.....	80,735	52,257			
			Mississippi.....	24,849	( <sup>2</sup> )			
			West South Central.....	28,320	23,357			
			Arkansas.....	23,558	15,730			
			Texas.....	4,762	7,627			
			West.....	24,365	( <sup>2</sup> )			

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million reported. n.e.c. Not elsewhere classified.

<sup>1</sup>For the specified product classes, shipments of \$1 million or more were reported for the States listed, but the exact figures are withheld to avoid disclosure of individual company figures: 31111, Maine, Vermont, Ohio, Indiana, Minnesota, Missouri, Maryland, Virginia, North Carolina, Georgia, Kentucky, and California; 31113, New Hampshire, Massachusetts, New York, Wisconsin, North Carolina, and Tennessee; 31114, Massachusetts, Connecticut, New Jersey, Pennsylvania, Illinois, Michigan, and Delaware; 31411, New Hampshire, Connecticut, New York, New Jersey, Indiana, Illinois, Michigan, Minnesota, Missouri, Virginia, West Virginia, North Carolina, Georgia, Kentucky, Tennessee, Arkansas, and Texas; 31412, New York, Pennsylvania, Michigan, Minnesota, Missouri, Maryland, North Carolina, Georgia, Alabama, Arkansas, and California; 31413, New York, Ohio, Michigan, Missouri, Virginia, North Carolina, and Kentucky; 31414, Indiana, Michigan, Wisconsin, Minnesota, Virginia, Georgia, Florida, Kentucky, and Tennessee; 31415, New York, Indiana, Illinois, Michigan, Missouri, Georgia, and Mississippi; 31416, New York, Wisconsin, and Kentucky; 31417, New Hampshire, New York, Illinois, and Wisconsin.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

<sup>3</sup>See text regarding comparability of 1963 and 1958 data.



TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Delivered cost (\$1,000)	
		1963	1958
	Materials, parts, supplies, total.....	397,655	(NA)
201191	Hides, skins, and pelts.....	274,282	(NA)
280021	Tanning materials, dressings, dyes, and other finishing agents.....	87,440	(NA)
970099	All other materials, containers, and supplies.....	19,055	(NA)
976000	Materials, parts, supplies, n.s.k. <sup>1</sup> .....	16,878	(NA)

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
	Materials, parts, supplies, total.....		(X)	15,591	(X)	26,211
311108	Finished leather.....	1,000 lbs.....	5,226	5,921	9,675	11,966
970099	All other materials, parts, and supplies.....		(X)	7,661	(X)	11,666
976000	Materials, parts, supplies, n.s.k. <sup>1</sup> .....		(X)	2,009	(X)	2,579
	Materials, parts, supplies, total.....		(X)	129,045	(X)	143,409
311102	Finished leather: Upper leather.....	1,000 sq. ft....	9,488	3,158	(NA)	4,919
	Soling leather, total.....	..do.....	80,979	36,243	132,156	53,180
311105	Innersole leather.....	1,000 lbs.....	16,704	5,492	37,657	11,616
311106	All other soling leather.....	..do.....	64,275	30,751	94,449	41,564
311108	All other finished leather.....	..do.....	13,924	6,920	(X)	6,308
240011	Plywood and other wood products, except boxes and containers.....		(X)	9,029	(X)	( <sup>2</sup> )
970099	All other materials, containers, and supplies consumed.....		(X)	53,665	(X)	60,617
976000	Materials, containers, supplies, n.s.k. <sup>1</sup> .....		(X)	20,030	(X)	18,385

Code	Material	Unit of measure	1963		1958		1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
	Materials, parts, supplies, total.....		(X)	983,404	(X)	927,138	(X)	54,695	(X)	50,216
	Finished leather: Upper leather, total.....	1,000 sq. ft.	945,802	398,450	900,341	376,932	24,914	9,600	32,715	11,866
311103	Lining leather.....	..do.....	255,588	56,495	390,263	149,864	5,667	1,947	20,416	7,595
311104	All other upper leather....	..do.....	690,214	341,955	510,078	227,068	19,247	7,653	12,299	4,271
	Soling leather, total.....	1,000 lbs....	127,808	52,371	120,972	58,135	4,221	2,943	(NA)	2,007
311105	Innersole leather.....	..do.....	45,752	13,268	78,844	35,117	323	248	(NA)	2,007
311106	All other soling leather....	..do.....	82,056	39,103	42,128	23,018	3,898	2,695	(NA)	
311107	All other finished leather...		(X)	5,876	(X)	6,256	(X)	1,397	(X)	331
	Cut stock and findings.....		(X)	126,222	(X)	385,963	(X)	3,680	(X)	43,848
307984	Composition and nuclear.....	1,000 lbs....	75,592	26,026	(X)	(X)	1,854	1,277	(X)	(X)
300115	Plastic, natural and synthetic rubber.....		(X)	40,599	(X)	(X)	(X)	1,577	(X)	(X)
313108	Leather and other.....		(X)	59,597	(X)	(X)	(X)	826	(X)	(X)
229503	Coated impregnated or laminated plastics on cloth backing, including artificial leather....	1,000 lin. yds.....	13,175	15,598	10,150	11,571	(D)	(D)	2,143	2,966
307913	Unsupported plastic film and sheeting, not backed.....	1,000 sq. yds.....	(NA)	2,141	(X)	(X)	(D)	(D)	(X)	(X)
220129	Broad-woven fabrics (over 12" wide).....	1,000 lin. yds.....	47,281	23,918	49,409	26,937	5,628	6,544	12,985	9,877

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958		1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
	Materials, parts, supplies—Continued		INDUSTRY 3141.—SHOES, EXCEPT RUBBER—Continued				INDUSTRY 3142.—HOUSE SLIPPERS—Continued			
970011	Containers and other packaging supplies.....	.....	(X)	35,891	(X)	34,371	(X)	2,378	(X)	2,732
970099	All other materials, parts, supplies.....	.....	(X)	213,478	(X)	268,629	(X)	15,756	(X)	10,196
976000	Materials, parts, supplies, n.s.k. <sup>1</sup> .....	.....	(X)	109,459	(X)	58,344	(X)	12,397	(X)	6,393

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.  
(X) Not applicable.  
n.s.k. Not specified by kind.  
<sup>1</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."  
<sup>2</sup>In 1958, data for plywood and other wood products, except boxes and containers, were not collected separately, but were included in the value reported for code 970099, All other materials, containers, and supplies consumed.  
<sup>3</sup>Includes the following: Purchased leather cut stock, \$30,024 thousand; and composition and nuclear types of soling materials, \$55,939 thousand.  
<sup>4</sup>Includes the following: Purchased leather cut stock, \$539 thousand; and composition and nuclear types of soling materials, \$3,309 thousand.



TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

Item	Leather tanning and finishing (SIC 3111)	Industrial leather belting (SIC 3121)	Footwear cut stock (SIC 3131)	Shoes, except rubber (SIC 3141)	House slippers (SIC 3142)
Total cost of purchased fuels and electric energy.....\$1,000..	12,686	1,732	1,349	10,478	594
Total cost of purchased fuels.....do....	8,183	1,348	568	3,251	173
Bituminous coal, lignite, and anthracite:					
Quantity.....1,000 short tons..	324	-	6	70	(S)
Cost.....\$1,000..	2,793	-	73	670	(S)
Coke and breeze:					
Quantity.....1,000 short tons..	-	-	-	(S)	-
Cost.....\$1,000..	-	-	-	(S)	-
Fuel oil (distillate and residual):					
Quantity.....1,000 barrels of 42 gallons..	988	34	(S)	302	20
Cost.....\$1,000..	2,775	87	(S)	1,121	77
Gas (natural, manufactured, still, blast furnace, and coke oven):					
Quantity.....million cu.ft..	2,327	2,573	201	802	(S)
Cost.....\$1,000..	1,119	1,258	86	511	(S)
Other fuels.....do....	1,496	(S)	220	945	60
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	314	27	38	357	21
Cost.....\$1,000..	4,503	384	781	7,227	421
Generated less sold.....million kw.-hrs..	68	-	-	(S)	(S)
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	280	12	29	185	11
Prime movers, total.....do....	71	3	(Z)	7	1
Driving generators.....do....	59	-	(Z)	7	1
Not driving generators.....do....	12	3	(Z)	(Z)	-
Electric motors, total.....do....	240	10	29	179	11
Driven by purchased energy.....do....	209	10	29	178	11
Driven by energy generated at establishment.....do....	32	-	-	1	-
Aggregate horsepower per 100 production workers.....	1,026	480	190	95	104

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3111-	LEATHER TANNING AND FINISHING										
	Entire industry.....	525	31,417	163,307	27,282	54,556	129,756	273,092	480,507	758,408	6,480
	Establishments with—										
	90% or more specialization..	478	30,463	158,966	26,440	52,966	126,307	267,336	470,477	742,536	6,296
31111	Finished cattle hide and kip side leathers, all establishments (primary product class of estab.)	141	15,291	84,648	13,288	27,229	67,174	146,993	303,537	455,339	3,870
	Establishments with—										
	90% or more specialization....	113	10,439	57,540	9,136	18,763	45,337	101,132	218,886	324,525	2,792
	75-89% specialization.....	14	1,962	10,494	1,657	3,402	8,381	18,301	30,929	49,571	407
31112	Finished calf and whole kip leathers, all establishments (primary product class of estab.).....	13	1,624	8,792	1,392	2,719	6,675	14,373	25,152	38,814	259
31113	Finished sheep and lamb leathers, all establishments. (primary product class of estab.).....	50	1,740	8,423	1,463	2,793	5,840	16,132	48,747	64,963	275
	Establishments with—										
	90% or more specialization....	44	1,315	6,582	1,094	2,114	4,513	13,130	42,587	55,776	189
31114	Other finished leathers, n.e.c., all establishments (primary product class of estab.).....	32	2,560	13,766	2,084	4,048	10,140	20,930	39,511	60,963	367
	Establishments with—										
	90% or more specialization....	25	1,712	9,241	1,395	2,676	6,750	12,926	28,256	41,825	336
31115	Rough, russet, and crust leather (primary product class of estab.)	13	760	3,609	642	1,230	2,806	6,020	14,025	20,332	118
	Establishments with—										
	90% or more specialization....	8	307	1,434	264	477	1,101	1,864	6,830	8,892	40
31119	Receipts for tanning or finishing leather owned by others (primary product class of estab.).....	131	8,081	38,324	7,225	14,268	32,411	55,740	36,661	92,164	1,195
	Establishments with—										
	90% or more specialization....	125	7,707	36,287	6,883	13,486	30,630	52,387	34,953	87,196	(D)
3111-11	Leather tanning and finishing, tanneries (entire subindustry).	283	22,148	117,540	19,316	38,832	94,003	196,793	332,488	532,998	5,030
	Establishments with—										
	90% or more specialization....	275	21,441	114,293	18,695	37,669	91,512	192,744	323,100	519,453	4,913
31111-11	Finished cattle hide and kip side leathers, tanneries (entire subindustry).....	112	14,778	80,959	13,005	26,658	65,562	135,870	235,383	375,723	3,755
	Establishments with—										
	90% or more specialization..	90	10,073	54,784	8,902	18,290	44,016	91,482	167,321	263,044	2,709
	75-89% specialization.....	12	1,917	10,253	1,620	3,327	8,208	17,672	29,652	47,672	390
31113-11	Finished sheep and lamb leathers, tanneries (entire subindustry).....	29	1,404	6,257	1,233	2,353	4,745	10,619	21,993	32,537	219
31114-11	Other finished leather, n.e.c., tanneries (entire subindustry)	24	2,439	13,032	2,027	3,939	9,916	19,723	30,416	50,049	356
	Establishments with—										
	90% or more specialization..	19	1,621	8,674	1,355	2,596	6,585	12,132	21,562	33,727	326
31115-11	Rough russet, and crust leathers, tanneries (entire subindustry).....	9	678	3,146	566	1,052	2,510	5,031	12,364	17,624	116

See footnotes at end of table.



TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3111-	LEATHER TANNING AND FINISHING—Continued										
3111-22	Leather tanning and finishing converters (entire subindustry)	61	806	5,781	413	831	2,150	17,212	109,360	127,744	164
	Establishments with—										
	90% or more specialization....	61	806	5,781	413	831	2,150	17,212	109,360	127,744	164
31111-22	Finished cattle hide and kip side leathers, converters (entire subindustry).....	26	410	3,083	190	391	1,100	10,232	66,998	77,562	91
3111-33	Leather tanning and finishing, contract tanneries (entire subindustry).....	180	8,447	39,957	7,540	14,871	33,581	59,038	38,598	97,555	1,285
	Establishments with—										
	90% or more specialization....	141	8,200	38,863	7,319	14,444	32,623	57,331	37,956	95,228	1,218
31111-33	Finished cattle hide and kip side leathers, contract tanneries (entire subindustry)...	3	103	606	93	180	512	891	1,156	2,054	24
3141-	SHOES, EXCEPT RUBBER										
	Entire industry.....	1,040	201,728	713,577	182,901	334,969	589,369	1,214,740	1,035,627	2,249,167	18,470
	Establishments with—										
	90% or more specialization..	963	191,115	679,805	173,189	317,081	561,460	1,161,538	1,001,455	2,163,871	17,589
	75-89% specialization.....	13	2,053	6,937	1,852	3,271	5,408	10,984	9,812	20,394	113
31411	Men's dress shoes, including play shoes (primary product class of estab.).....	146	46,016	170,011	41,538	76,927	141,554	304,543	275,573	580,081	3,946
	Establishments with—										
	90% or more specialization....	92	29,744	115,805	26,670	49,464	94,816	212,988	182,461	395,015	1,729
	75-89% specialization.....	22	7,046	23,255	6,396	11,778	20,351	35,969	42,267	78,571	478
31412	Men's work shoes (primary product class of estab.).....	51	11,672	43,145	10,454	19,649	33,339	75,226	91,919	165,738	1,176
	Establishments with—										
	90% or more specialization....	38	7,982	29,295	7,333	13,633	23,810	51,586	66,934	118,194	503
	75-89% specialization.....	5	2,107	8,458	1,668	3,241	5,286	13,874	14,624	27,997	413
31413	Youth's and boy's shoes (primary product class of estab.).....	21	5,193	16,347	4,873	9,032	14,585	31,647	23,186	55,004	434
	Establishments with—										
	90% or more specialization....	4	792	2,333	711	1,348	1,898	4,029	3,409	7,678	40
31414	Women's dress, work and play shoes (primary product class of estab.)	399	99,326	348,837	90,378	163,086	289,050	582,020	490,975	1,071,967	9,180
	Establishments with—										
	90% or more specialization....	347	88,112	311,435	80,097	144,439	257,952	517,382	437,622	955,941	8,280
	75-89% specialization.....	21	4,905	16,137	4,507	8,240	13,790	27,117	25,371	52,405	566
31415	Misses' and children's shoes (primary product class of estab.)	105	22,500	80,482	20,503	38,395	66,519	134,708	95,494	231,083	2,086
	Establishments with—										
	90% or more specialization....	32	5,430	18,159	5,069	9,835	15,676	29,096	22,440	51,543	899
	75-89% specialization.....	15	3,637	11,599	3,383	6,289	10,214	21,578	15,957	37,898	182
31416	Infants' and babies' shoes (primary product class of estab.)....	41	5,212	16,184	4,662	8,255	13,275	27,572	18,633	46,408	434
	Establishments with—										
	90% or more specialization....	30	2,995	9,304	2,623	4,586	7,255	15,053	10,451	25,468	279
31417	All other footwear (primary product class of estab.).....	69	5,252	19,349	4,574	8,457	14,366	31,445	28,856	60,156	437
	Establishments with—										
	90% or more specialization....	52	2,691	9,498	2,329	4,197	7,065	16,397	13,376	29,713	299
	75-89% specialization.....	6	859	3,123	792	1,402	2,563	4,803	4,783	9,378	29

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.  
n.e.c. Not elsewhere classified.

## LEATHER GLOVES; LUGGAGE; AND MISCELLANEOUS LEATHER GOODS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

3151—Leather Dress, Semidress, and Work Gloves

3161—Luggage

3171—Women's Handbags and Purses

3172—Personal Leather Goods, Except Handbags and Purses

3199—Leather Goods, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

With the exception of the Leather Gloves Industry (SIC 3151), the products of these industries are made from both leather and nonleather materials. For example, plants primarily engaged in making luggage (whether from plastics, leather, or other materials) are classified in the luggage industry; the basis for classification is the type of product rather than the kind of raw material used.

### 3151—LEATHER DRESS, SEMIDRESS, AND WORK GLOVES

This industry comprises establishments primarily engaged in manufacturing dress, semidress, and work gloves exclusively of leather. Establishments primarily engaged in manufacturing sporting and athletic gloves are classified in industry 3949; and dress, semidress, and work gloves and mittens of cloth, or cloth and leather combined, in industry 2381. For a detailed list of products of industry 3151, refer to table 6A, product codes 3151012 to 3151079.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Leather Gloves Industry in 1963 totaled \$81 million. This amount included shipments of leather dress, semidress, and work gloves (primary products) valued at \$55 million, shipments of other products (secondary products) valued at \$13 million, and miscellaneous receipts (mainly contract work on materials owned by others), at \$12 million.



This industry's shipments of leather gloves in 1963 represented 81 percent of its total product shipments. The industry specialization ratio in 1958 was 85 percent. Secondary products shipped by this industry in 1963 consisted mainly of fabric dress gloves and mittens (\$9 million), and fabric work gloves and mittens (\$3 million).

Shipments of leather dress, semidress, and work gloves by this industry in 1963 represented 89 percent of all shipments of these products (\$62 million) by all industries. In 1958 the coverage ratio was 86 percent.

Establishments in this industry were requested to report value of shipments in 1963 and value of production in prior years. This change was made as a result of a review of the reporting which indicated that the value of shipments data were more generally available from company records and were usually reported in place of value of production. This change does not significantly affect the comparability between 1963 and prior years for the product statistics shown in tables 6A or in the industry's value of shipments shown in tables 1 to 4.

The production index for the primary products of the industry increased to 123 in 1963 from the 1958 level of 103. The unit value index for 1963 was 115 compared to 109 in 1958. Both indexes were computed on a basis of 1954 = 100.

### 3161—LUGGAGE

This industry comprises establishments primarily engaged in manufacturing luggage of leather or other materials. For a detailed list of products of industry 3161, refer to table 6A, product codes 3161015 to 3161098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Luggage Industry in 1963 totaled \$210 million. This amount included shipments of luggage (primary products) valued at \$192 million, shipments of other products (secondary products) valued at \$10 million, and miscellaneous receipts (mainly contract work on materials owned by others), at \$8 million.

This industry's shipments of luggage in 1963 represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was also 95 percent.

Shipments of luggage by this industry in 1963 represented 94 percent of all shipments of these products (\$205 million) by all industries. In 1958 the coverage ratio was 95 percent. Other industries shipping luggage consisted mainly of industry 3172, Small Leather Goods, \$2,048 million.

As a result of revisions to the 1957 Standard Industrial Classification, data for this industry for 1957 and earlier years are not directly comparable to those for 1958 to 1963. The extent of noncomparability is described in the text for industry 3161 which appears in the 1958 Census of Manufactures, volume II, part 2.

The production index for the primary products of the industry increased to 120 in 1963 from the 1958 level of 106. The unit value index for 1963 was 115 compared to 104 in 1958. Both indexes were computed on a basis of 1954 = 100.

Establishments shipping luggage, travel kits, billfolds, wallets, and French purses also report monthly on Census Form M31E, Luggage, Briefcases, and Personal Leather Goods. The 1963 data compiled from this survey are shown in table 6A together with the com-

parable totals reported in the census of manufactures. The M31E survey was initiated in 1960.

The two sets of 1963 data differ primarily because of the different procedures used in deriving the totals. All manufacturing plants are included in the census of manufactures. The monthly M31E data, on the other hand, are estimates based on reports received from a sample of all producers benchmarked to their 1958 Census of Manufactures reports. Over a period of time, most samples, including this one, are subject to increasing errors pending rebenchmarking to a complete universe. It appears that the sample for the luggage and personal leather goods survey did not completely reflect the changes in business activity of the nonsample companies and consequently the estimates differed from the results of the complete census.

In addition, the data available for the benchmark year (1958) were in less detail than that collected in the M31E survey. Therefore, "average" estimating factors were used for some of the detail items. This fact significantly affected the level of some of these estimates.

#### 3171—WOMEN'S HANDBAGS AND PURSES

This industry comprises establishments primarily engaged in manufacturing women's handbags and purses of leather or other materials, except precious metal (industry 3911). For a detailed list of products of industry 3171, refer to table 6A, product codes 3171011 to 3171071.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Handbags and Purses Industry in 1963 totaled \$280 million. This amount included shipments of ladies' and children's handbags and purses (primary products) valued at \$261 million, shipments of other products (secondary products) valued at \$7 million, and miscellaneous receipts (mainly contract work on materials owned by others), at \$12 million.

This industry's shipments of handbags and purses in 1963 represented 98 percent of its total product shipments. The industry specialization ratio in 1958 was 96 percent.

Shipments of handbags and purses by this industry in 1963 represented 98 percent of all shipments of these products (\$266 million) by all industries. In 1958 the coverage ratio was 98 percent. Another industry shipping handbags and purses was industry 3172, Small Leather Goods, \$2 million.

The production index for the primary products of the industry increased to 117 in 1963 from the 1958 level of 107. The unit value index for 1963 was 127 compared to 111 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3172—PERSONAL LEATHER GOODS, EXCEPT HANDBAGS AND PURSES

This industry comprises establishments primarily engaged in manufacturing small articles, such as billfolds, key cases and coin purses of leather or other materials, except precious metal (industry 3911). For a detailed list of products in industry 3172, refer to table 6A, product codes 3172011 to 3172055.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Small Leather Goods Industry in 1963 totaled \$159 million. This amount included shipments of personal leather goods, except



handbags and purses, (primary products) valued at \$141 million, shipments of other products (secondary products) valued at \$6 million, and miscellaneous receipts (mainly contract work on materials owned by others), at \$12 million.

This industry's shipments of small leather goods in 1963 represented 96 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 consisted mainly of luggage (\$2 million), and handbags and purses (\$2 million).

Shipments of personal leather goods, except handbags and purses, by this industry in 1963 represented 92 percent of all shipments of these products (\$154 million) by all industries. In 1958 the coverage ratio was 87 percent.

As a result of revisions to the 1957 Standard Industrial Classification, data for this industry for 1957 and earlier years are not directly comparable to those for 1958 to 1963. The extent of noncomparability is described in the text for industry 3172 which appears in the 1958 Census of Manufactures, volume II, part 2.

The production index for the primary products of the industry increased to 130 in 1963 from the 1958 level of 112. The unit value index for 1963 was 99 compared to 102 in 1958. Both indexes were computed on a basis of 1954 = 100.

Establishments shipping luggage, travel kits, billfolds, wallets, and French purses also report monthly on Census Form M31E, Luggage, Briefcases, and Personal Leather Goods. The 1963 data compiled from this survey are shown in table 6A, together with the comparable totals reported in the census of manufactures. The M31E survey was initiated in 1960.

The two sets of 1963 data differ primarily because of the different procedures used in deriving the totals. All manufacturing plants reported in the census of manufactures. The monthly M31E data, on the other hand, are estimates based on reports received from a sample of all producers benchmarked to their 1958 Census of Manufactures reports. Over a period of time, most samples, including this one, are subject to increasing errors pending rebenchmarking to a complete universe. It appears that the sample for the luggage and personal leather goods survey did not completely reflect the changes in business activity of the nonsample companies and consequently the estimates differed from the results of the complete census.

In addition, the data available for the benchmark year (1958) were in less detail than that collected in the M31E survey. Therefore, "average" estimating factors were used for some of the detail items. This fact significantly affected the level of some of these estimates.

#### 3199—LEATHER GOODS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing leather goods, n.e.c., such as saddlery, harness, and whips; embossed leather goods; leather desk sets; and razor straps. For a detailed list of products of industry 3199, refer to table 6A, product codes 3199011 to 3199098.

Establishments primarily engaged in manufacturing leather garments are classified in industry 2386, Leather and Sheeplined Clothing; leather belts in industry 2387, Apparel Belts; leather gaskets in industry 3293, Gaskets and Insulations; leather buffing wheels in industry 3291, Abrasive Products; and leather costume jewelry in industry 3961, Costume Jewelry.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

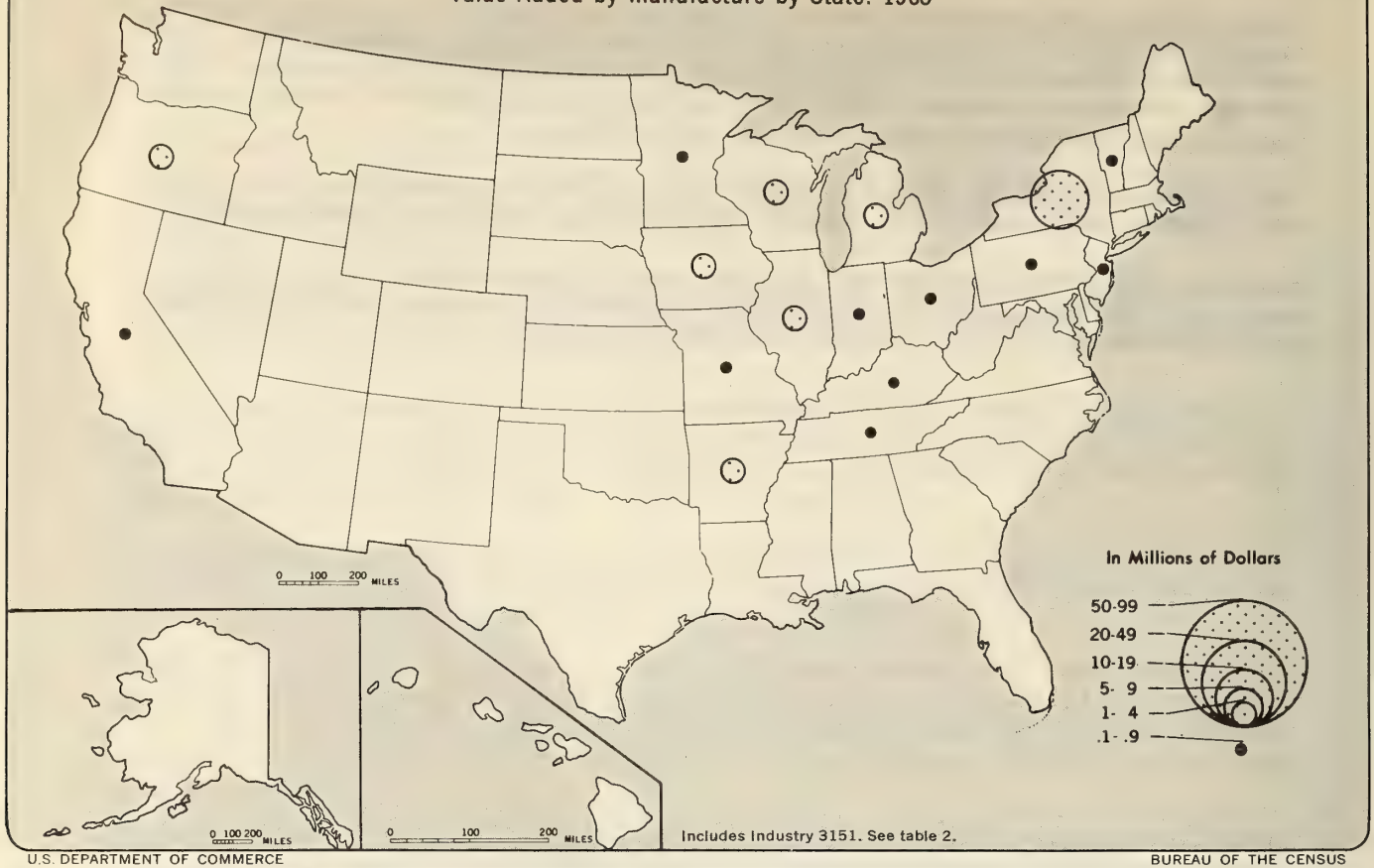
Value of shipments and other receipts of the Leather Goods, N.E.C., Industry in 1963 totaled \$67 million. This amount included shipments of saddlery, harness and whip and other leather products, n.e.c. (primary products) valued at \$55 million, shipments of other products (secondary products) valued at \$4 million, and miscellaneous receipts (mainly contract work on materials owned by others), at \$8 million.

This industry's shipments of leather goods, n.e.c., in 1963 represented 94 percent of its total product shipments. The industry specialization ratio in 1958 was 96 percent.

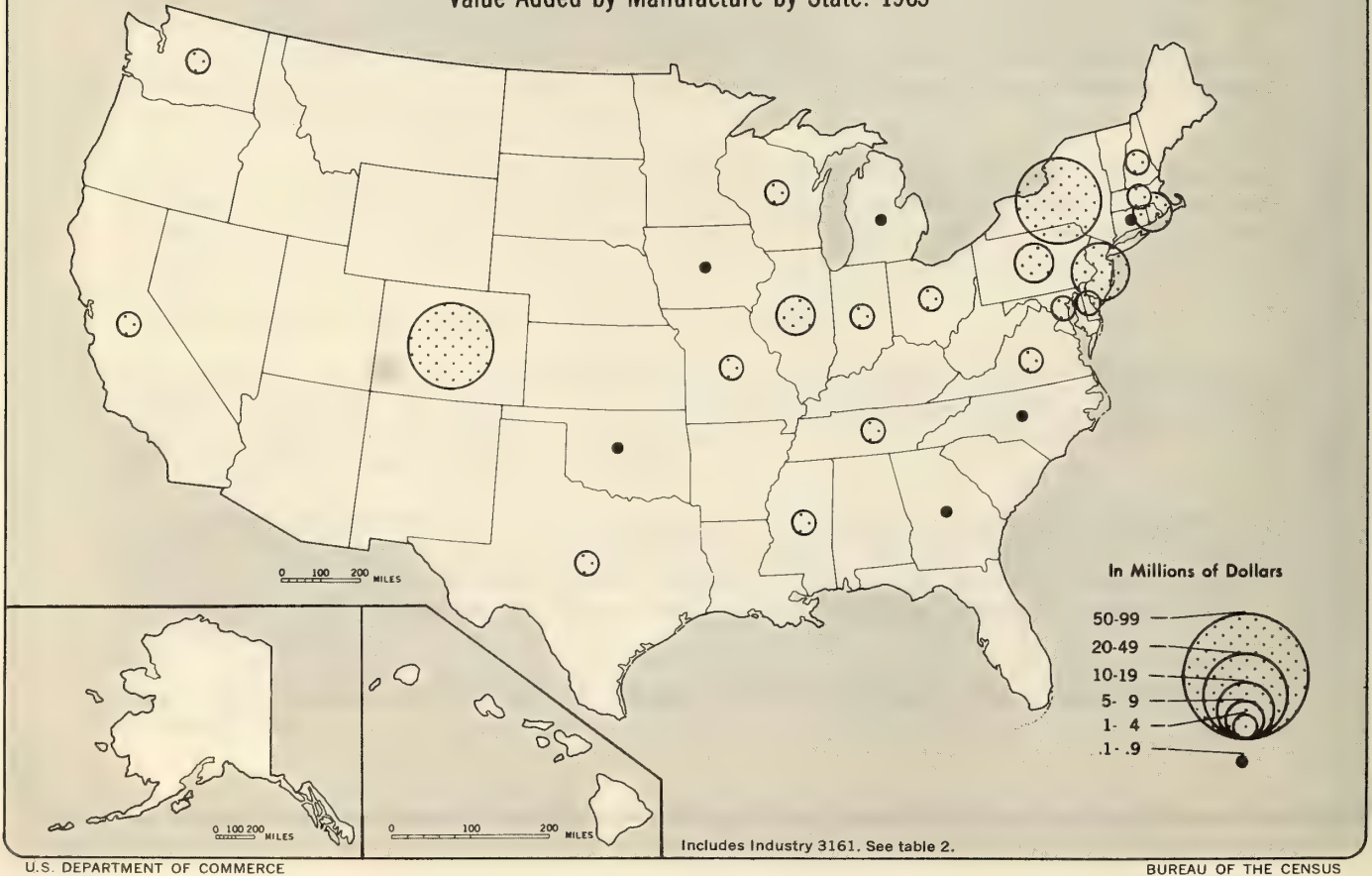
Shipments of saddlery, harness and whip and other leather products, n.e.c., by this industry in 1963 represented 82 percent of all shipments of these products (\$67 million) by all industries. In 1958 the coverage ratio was 84 percent.



# LEATHER GLOVES: SIC 315 Value Added by Manufacture by State: 1963

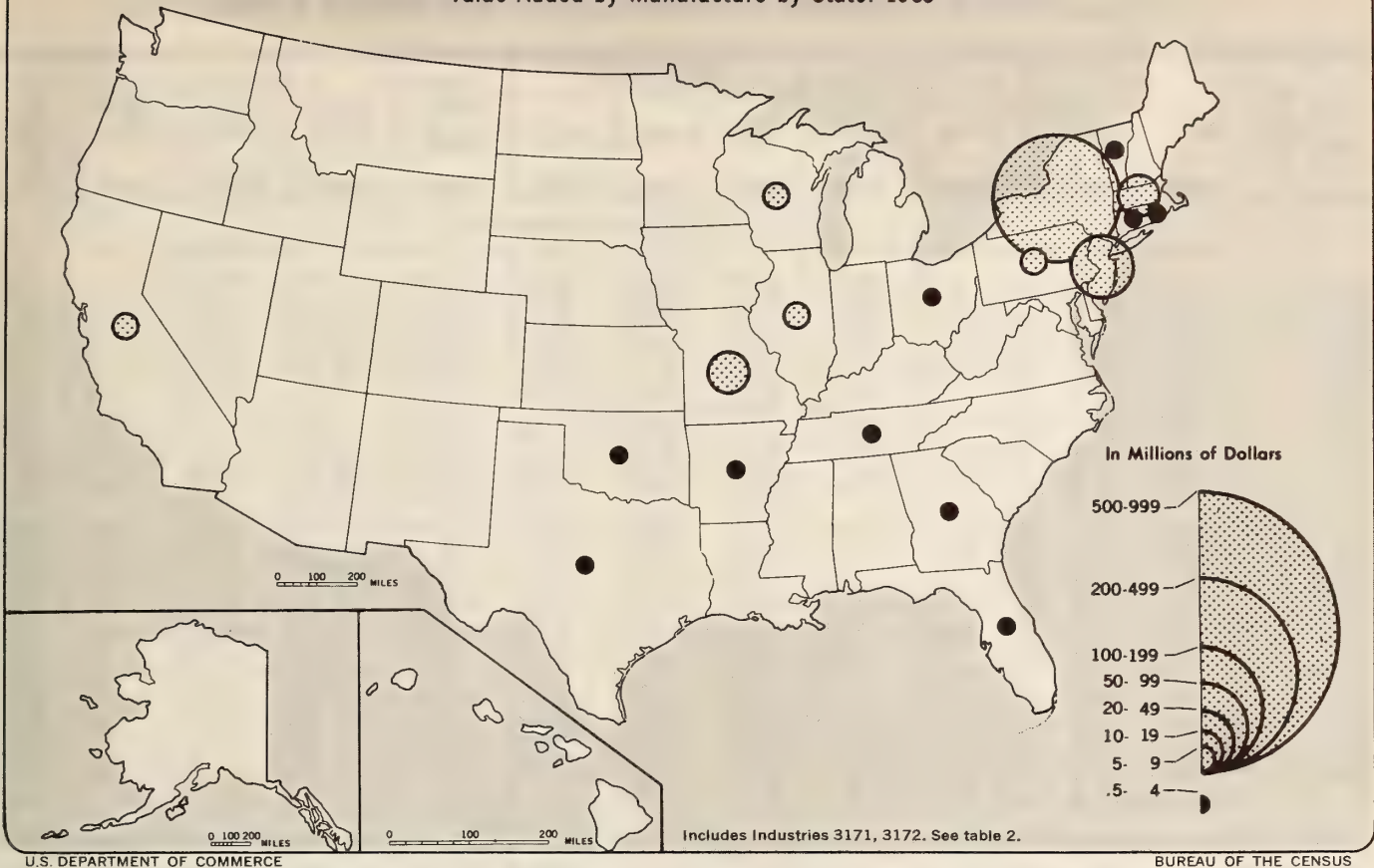


# LUGGAGE: SIC 316 Value Added by Manufacture by State: 1963



# PURSES AND SMALL LEATHER GOODS: SIC 317

Value Added by Manufacture by State: 1963



# LEATHER GOODS, N.E.C.: SIC 319

Value Added by Manufacture by State: 1963

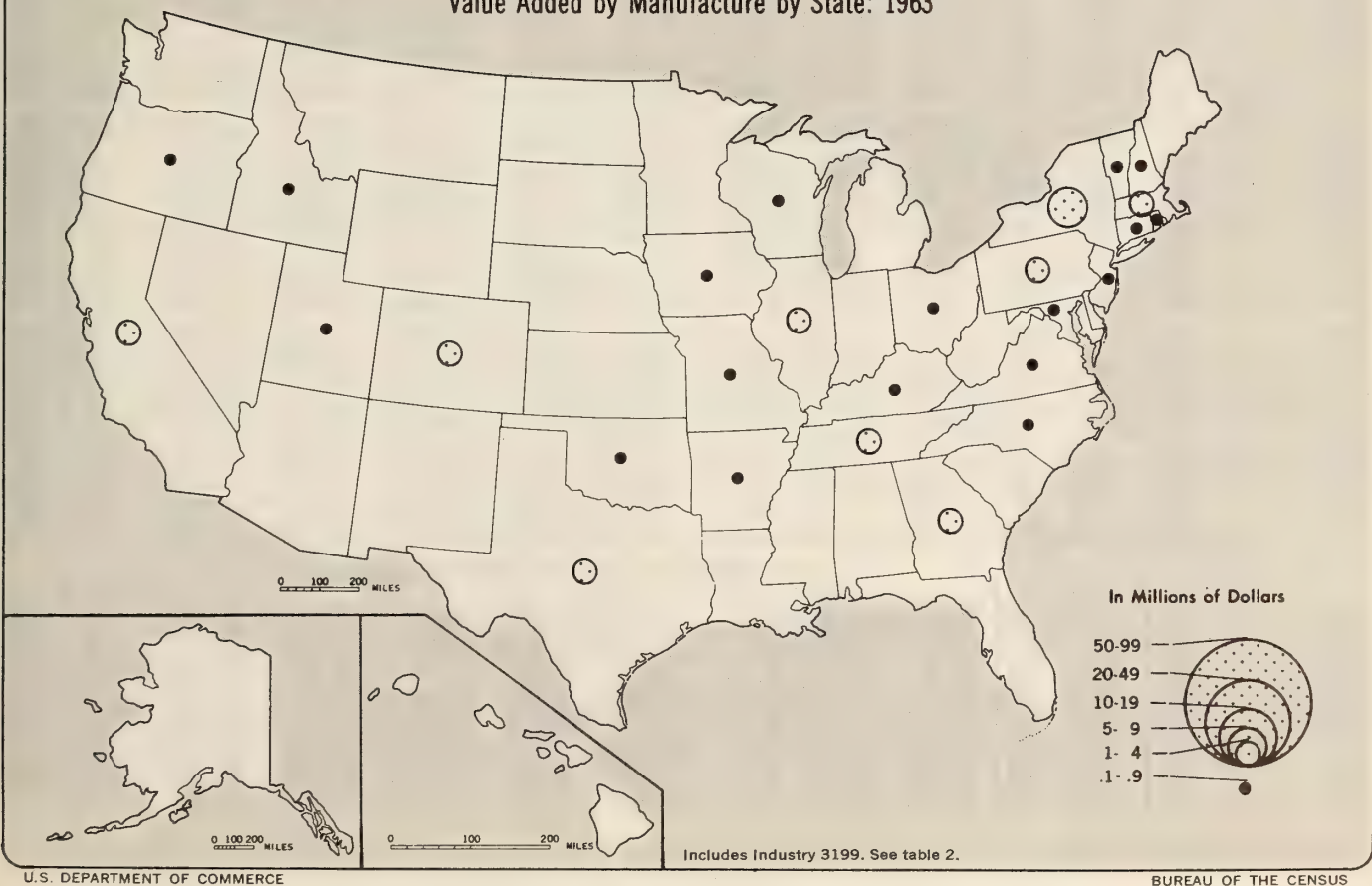




TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spec- ial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3151.—LEATHER GLOVES														
1963.....	160	166	87	7,718	24,439	6,899	12,244	19,481	<sup>1</sup> 32,194	46,694	<sup>1</sup> 80,640	328	81	89
1962 <sup>2</sup> .....	(NA)	(NA)	(NA)	6,152	18,515	5,407	9,864	14,628	25,461	31,178	56,427	(Z)	(NA)	(NA)
1961 <sup>2</sup> .....	(NA)	(NA)	(NA)	6,802	20,125	6,053	10,724	16,164	30,070	35,098	64,499	(Z)	(NA)	(NA)
1960 <sup>2</sup> .....	(NA)	(NA)	(NA)	6,917	19,034	6,094	10,403	15,411	28,123	33,091	61,188	(S)	(NA)	(NA)
1959 <sup>2</sup> .....	(NA)	(NA)	(NA)	6,595	18,319	5,868	10,249	14,920	27,763	33,680	60,959	(S)	(NA)	(NA)
1958 <sup>3</sup> .....	171	179	76	6,212	15,999	5,503	9,214	12,705	25,999	28,309	54,155	263	85	86
1954 <sup>4</sup> .....	(NA)	<sup>5</sup> 239	90	6,917	15,573	6,181	10,433	12,344	22,718	26,201	49,989	122	88	90
1952 <sup>2</sup> .....	(NA)	(NA)	(NA)	6,414	16,555	5,649	10,529	13,197	26,724	(NA)	(NA)	(NA)	(NA)	(NA)
1951 <sup>2</sup> .....	(NA)	(NA)	(NA)	7,339	17,166	6,744	11,327	14,195	23,130	(NA)	(NA)	(NA)	(NA)	(NA)
1949 <sup>2</sup> .....	(NA)	(NA)	(NA)	8,713	17,269	7,690	13,107	13,611	24,515	26,708	51,069	(NA)	(NA)	(NA)
1947.....	(NA)	341	131	11,577	20,798	10,491	18,132	17,091	32,088	30,881	63,438	528	(NA)	(NA)
1939.....	(NA)	231	(NA)	(NA)	(NA)	9,539	(NA)	7,061	12,467	13,269	25,736	(NA)	(NA)	(NA)
1937.....	(NA)	221	(NA)	12,568	10,694	11,637	(NA)	9,039	14,998	15,720	30,718	(NA)	(NA)	(NA)
1935.....	(NA)	224	(NA)	10,573	10,011	9,810	(NA)	8,500	14,257	13,874	28,131	(NA)	(NA)	(NA)
1933.....	(NA)	194	(NA)	8,759	7,371	8,129	(NA)	6,434	12,093	11,377	23,470	(NA)	(NA)	(NA)
1931.....	(NA)	227	(NA)	(NA)	(NA)	7,884	(NA)	7,554	14,888	13,136	28,024	(NA)	(NA)	(NA)
1929.....	(NA)	257	(NA)	10,101	11,476	9,203	(NA)	9,204	18,917	20,206	39,123	(NA)	(NA)	(NA)
1927.....	(NA)	232	(NA)	10,146	10,852	9,106	(NA)	8,814	17,386	19,276	36,662	(NA)	(NA)	(NA)
1925 <sup>6</sup> .....	(NA)	226	(NA)	(NA)	(NA)	7,115	(NA)	6,915	15,514	17,779	33,293	(NA)	(NA)	(NA)
1923.....	(NA)	260	(NA)	11,115	10,705	10,010	(NA)	8,545	17,857	20,224	38,081	(NA)	(NA)	(NA)
1921.....	(NA)	272	(NA)	8,853	7,714	7,907	(NA)	5,843	11,011	13,844	24,855	(NA)	(NA)	(NA)
1919.....	(NA)	355	(NA)	12,189	11,249	10,685	(NA)	8,151	20,655	26,286	46,941	(NA)	(NA)	(NA)
1914.....	(NA)	352	(NA)	11,928	5,959	10,668	(NA)	4,558	9,443	12,171	21,614	(NA)	(NA)	(NA)
1909.....	(NA)	377	(NA)	12,492	6,020	11,354	(NA)	4,764	10,423	13,208	23,631	(NA)	(NA)	(NA)
1904.....	(NA)	339	(NA)	11,285	4,425	10,645	(NA)	3,840	7,739	10,001	17,740	(NA)	(NA)	(NA)
1899 <sup>7</sup> .....	(NA)	394	(NA)	15,004	4,730	14,345	(NA)	4,183	7,443	9,483	16,926	(NA)	(NA)	(NA)
INDUSTRY 3161.—LUGGAGE														
1963.....	377	379	145	16,409	62,853	14,134	26,340	46,715	112,796	100,363	210,303	1,908	95	94
1962 <sup>2</sup> .....	(NA)	(NA)	(NA)	16,068	61,568	13,588	25,788	45,379	110,051	97,106	207,899	(1,747)	(NA)	(NA)
1961 <sup>2</sup> .....	(NA)	(NA)	(NA)	15,915	56,955	13,637	25,609	43,238	97,855	89,096	186,152	(1,705)	(NA)	(NA)
1960 <sup>2</sup> .....	(NA)	(NA)	(NA)	18,030	60,968	15,494	28,560	45,056	107,529	94,781	200,969	(S)	(NA)	(NA)
1959 <sup>2</sup> .....	(NA)	(NA)	(NA)	16,817	57,934	14,604	27,366	43,370	101,564	96,173	193,519	(S)	(NA)	(NA)
1958 <sup>8</sup> .....	428	428	159	15,856	54,717	13,725	25,138	40,282	96,560	88,194	184,722	1,504	95	95
1957 <sup>2</sup> <sup>4</sup> .....	(NA)	(NA)	(NA)	17,637	57,867	14,936	27,278	43,160	105,148	91,238	197,508	1,240	(NA)	(NA)
1956 <sup>2</sup> .....	(NA)	(NA)	(NA)	19,565	63,122	17,082	31,033	47,857	107,255	96,188	202,320	(S)	(NA)	(NA)
1955 <sup>2</sup> .....	(NA)	(NA)	(NA)	18,917	60,602	16,833	31,771	47,318	108,046	86,987	193,289	(S)	(NA)	(NA)
1954.....	495	497	159	15,856	51,679	13,960	27,417	39,753	91,313	82,538	172,691	1,868	94	97
1953 <sup>2</sup> .....	(NA)	(NA)	(NA)	15,786	51,886	13,758	26,857	40,959	84,235	76,558	160,793	1,164	(NA)	(NA)
1952 <sup>2</sup> .....	(NA)	(NA)	(NA)	17,004	51,265	15,380	30,925	42,881	82,848	90,217	173,065	(S)	(NA)	(NA)
1951 <sup>2</sup> .....	(NA)	(NA)	(NA)	15,502	43,594	14,014	27,489	36,849	66,944	76,385	143,329	(S)	(NA)	(NA)
1950 <sup>2</sup> .....	(NA)	(NA)	(NA)	15,101	41,806	13,255	26,509	33,782	60,466	68,981	129,447	(S)	(NA)	(NA)
1949 <sup>2</sup> .....	(NA)	(NA)	(NA)	15,007	38,942	12,395	24,131	28,301	61,674	61,369	123,043	1,235	(NA)	(NA)
1947.....	590	591	(NA)	16,002	41,055	13,852	27,814	30,981	67,662	65,206	132,868	1,842	94	97
1939.....	(NA)	329	(NA)	9,924	11,556	8,326	(NA)	7,919	17,377	19,214	36,591	(NA)	(NA)	(NA)
1937.....	(NA)	277	(NA)	9,708	10,624	8,708	(NA)	8,458	18,186	20,534	38,720	(NA)	(NA)	(NA)
1935.....	(NA)	307	(NA)	7,644	8,278	6,654	(NA)	6,336	13,316	14,932	28,248	(NA)	(NA)	(NA)
1933.....	(NA)	270	(NA)	5,831	4,791	5,117	(NA)	3,749	8,040	9,328	17,368	(NA)	(NA)	(NA)
1931.....	(NA)	371	(NA)	(NA)	(NA)	6,198	(NA)	6,343	13,483	13,232	26,715	(NA)	(NA)	(NA)
1929.....	(NA)	467	(NA)	13,069	18,682	11,359	(NA)	13,757	32,275	31,694	63,969	(NA)	(NA)	(NA)
1927.....	(NA)	495	(NA)	12,097	17,591	10,345	(NA)	13,084	30,831	29,128	59,969	(NA)	(NA)	(NA)
1925.....	(NA)	475	(NA)	11,964	17,282	10,348	(NA)	13,226	29,842	31,382	61,224	(NA)	(NA)	(NA)
1923.....	(NA)	505	(NA)	13,217	17,685	11,441	(NA)	13,520	30,186	32,837	63,023	(NA)	(NA)	(NA)
1921.....	(NA)	504	(NA)	10,045	13,240	8,712	(NA)	10,260	22,666	23,883	46,549	(NA)	(NA)	(NA)
1919.....	(NA)	597	(NA)	13,615	17,736	11,470	(NA)	12,464	30,710	33,222	63,932	(NA)	(NA)	(NA)
1914.....	(NA)	561	(NA)	11,605	7,706	9,911	(NA)	5,540	12,847	13,625	26,472	(NA)	(NA)	(NA)
1909.....	(NA)	524	(NA)	12,870	7,653	11,122	(NA)	5,537	13,399	14,629	28,028	(NA)	(NA)	(NA)
1904.....	(NA)	373	(NA)	10,052	5,150	9,091	(NA)	4,139	9,536	9,108	18,644	(NA)	(NA)	(NA)
1899.....	(NA)	312	(NA)	7,672	3,469	6,964	(NA)	2,777	6,474	5,955	12,429	(NA)	(NA)	(NA)
INDUSTRY 3171.—HANDBAGS AND PURSES														
1963.....	539	545	262	24,548	88,455	22,001	41,752	70,058	142,554	137,107	280,343	1,890	98	98
1962 <sup>2</sup> .....	(NA)	(NA)	(NA)	24,020	81,237	21,678	41,282	66,555	134,100	128,580	263,444	1,310	(NA)	(NA)
1961 <sup>2</sup> .....	(NA)	(NA)	(NA)	23,597	76,636	21,152	39,537	61,580	127,317	130,475	259,359	1,094	(NA)	(NA)
1960 <sup>2</sup> .....	(NA)	(NA)	(NA)	23,224	74,023	20,702	39,025	58,607	127,687	129,980	258,436	1,064	(NA)	(NA)
1959 <sup>2</sup> .....	(NA)	(NA)	(NA)	23,914	73,244	21,164	40,050	57,447	122,469	134,295	257,796	(S)	(NA)	(NA)
1958.....	611	624	262	21,971	68,654	19,459	37,259	54,275	111,545	119,430	231,110	1,575	96	98
1957 <sup>2</sup> <sup>4</sup> .....	(NA)	(NA)	(NA)	23,261	66,602	20,892	38,100	52,423	106,590	104,339	211,972	(S)	(NA)	(NA)
1956 <sup>2</sup> .....	(NA)	(NA)	(NA)	24,418	68,059	22,164	41,681	53,756	110,749	105,347	214,932	(S)	(NA)	(NA)
1955 <sup>2</sup> .....	(NA)	(NA)	(NA)	24,537	65,335	22,377	41,028	51,821	102,074	100,326	201,923	(S)	(NA)	(NA)
1954.....	710	714	247	22,881	61,405	20,911	39,942	49,620	93,865	100,486	194,262	972	97	98

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
	INDUSTRY 3171.—HANDBAGS AND PURSES—Continued													
1953 <sup>2</sup> .....	(NA)	(NA)	(NA)	20,768	56,451	18,407	35,193	44,069	86,676	84,175	170,851	(S)	(NA)	(NA)
1950 <sup>2</sup> .....	(NA)	(NA)	(NA)	20,780	48,652	18,643	40,593	38,557	64,740	86,280	151,020	(S)	(NA)	(NA)
1947.....	725	736	279	20,378	45,664	18,468	38,725	36,168	77,042	86,264	163,306	799	99	97
1939.....	(NA)	286	(NA)	15,700	14,777	14,048	(NA)	11,239	22,929	32,878	55,807	(NA)	(NA)	(NA)
1937 <sup>9</sup> .....	(NA)	203	(NA)	12,236	11,264	11,306	(NA)	9,054	18,690	24,756	43,446	(NA)	(NA)	(NA)
	INDUSTRY 3172.—SMALL LEATHER GOODS													
1963.....	325	340	117	12,432	47,352	10,320	19,580	32,077	82,385	76,603	159,013	1,262	96	92
1962 <sup>2</sup> .....	(NA)	(NA)	(NA)	13,734	51,250	11,539	21,371	34,931	86,322	69,786	154,863	(1,772)	(NA)	(NA)
1961 <sup>2</sup> .....	(NA)	(NA)	(NA)	13,400	47,977	11,362	21,159	32,502	80,972	64,575	144,631	(1,330)	(NA)	(NA)
1960 <sup>2</sup> .....	(NA)	(NA)	(NA)	15,297	52,573	12,939	23,693	35,178	81,054	72,640	154,309	(5,650)	(NA)	(NA)
1959 <sup>2</sup> .....	(NA)	(NA)	(NA)	15,140	52,009	12,703	23,741	35,330	82,256	72,675	153,437	(2,843)	(NA)	(NA)
1958 <sup>10</sup> .....	399	400	123	13,657	46,483	11,521	21,380	31,865	75,791	62,550	138,052	1,378	91	87
1954 <sup>4</sup> .....	(NA)	425	129	14,666	44,079	12,219	23,473	30,305	69,882	53,516	124,164	1,303	(NA)	(NA)
1947.....	(NA)	411	122	12,818	27,447	11,367	22,385	20,867	45,825	34,829	80,654	1,098	(NA)	(NA)
1939 <sup>9</sup> .....	(NA)	242	(NA)	(NA)	(NA)	7,714	(NA)	6,561	15,280	12,741	28,021	(NA)	(NA)	(NA)
	INDUSTRY 3199.—LEATHER GOODS, N.E.C.													
1963.....	365	370	67	4,989	18,742	4,209	8,507	13,668	32,730	34,827	67,058	766	94	82
1962 <sup>2</sup> .....	(NA)	(NA)	(NA)	5,104	20,362	4,219	8,628	14,342	36,922	35,054	72,003	(615)	(NA)	(NA)
1961 <sup>2</sup> .....	(NA)	(NA)	(NA)	4,560	18,654	3,835	7,881	12,884	35,546	31,772	66,511	(705)	(NA)	(NA)
1960 <sup>2</sup> .....	(NA)	(NA)	(NA)	5,217	18,549	4,340	9,653	13,572	34,344	32,099	66,364	(S)	(NA)	(NA)
1959 <sup>2</sup> .....	(NA)	(NA)	(NA)	5,736	19,193	4,905	9,330	14,038	34,034	31,149	64,478	(S)	(NA)	(NA)
1958.....	429	433	74	5,405	17,651	4,623	8,778	13,185	31,227	28,740	60,178	842	96	84
1954 <sup>4</sup> .....	(NA)	489	83	5,900	16,471	5,109	9,835	12,392	29,208	29,709	58,659	340	92	85
1952 <sup>2</sup> .....	(NA)	(NA)	(NA)	7,617	21,847	6,826	12,883	16,755	37,114	(NA)	(NA)	(NA)	(NA)	(NA)
1951 <sup>2</sup> .....	(NA)	(NA)	(NA)	7,683	19,616	6,877	12,618	14,594	33,457	(NA)	(NA)	(NA)	(NA)	(NA)
1950 <sup>2</sup> .....	(NA)	(NA)	(NA)	9,387	22,441	7,176	13,307	14,583	39,812	(NA)	(NA)	(NA)	(NA)	(NA)
1949 <sup>2</sup> .....	(NA)	(NA)	(NA)	7,574	(NA)	6,235	11,827	(NA)	27,196	(NA)	(NA)	(NA)	(NA)	(NA)
1947.....	(NA)	544	113	9,016	19,882	7,901	15,924	15,209	31,696	29,698	61,394	668	(NA)	(NA)
1939.....	(NA)	316	(NA)	6,214	6,355	5,217	(NA)	4,475	9,913	11,116	21,029	(NA)	(NA)	(NA)
1937 <sup>11</sup> .....	(NA)	346	(NA)	(NA)	(NA)	6,748	(NA)	5,832	12,449	15,549	27,998	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$500 thousand. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>See text regarding comparability of 1963 data with earlier years.

<sup>2</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>3</sup>The 1957 Standard Industrial Classification combined in this industry two industries which were separate in the 1945 Standard Industrial Classification. These were: Leather dress gloves and leather work gloves. The data for 1947-1954 for these two industries have been combined. Prior to 1947, leather work gloves and leather dress gloves constituted a single industry.

<sup>4</sup>Data for Alaska and Hawaii are not included for 1957 and prior years.

<sup>5</sup>This industry contains a number of very small establishments, some of which may have been misclassified as to industry in 1954. This would not affect the statistics other than the number of establishments.

<sup>6</sup>The figures for 1925-1963 do not include data for gloves and mittens of cloth and leather combined, whereas the figures for earlier years include data for these products.

<sup>7</sup>The figures for 1899 include data for a few establishments making gloves and mittens from materials other than leather.

<sup>8</sup>A revision in the definition of the Luggage Industry was introduced in the 1957 Standard Industrial Classification so that the industry is not exactly comparable to years prior to 1958. The 1957 and earlier figures are on the old SIC definition of the industry. The details of the revision are described in the text.

<sup>9</sup>"Handbags and Purses" and "Small Leather Goods" formerly constituted one industry. Separate figures for prior years are not available.

<sup>10</sup>The 1957 Standard Industrial Classification combined in this industry two industries with several product revisions which were separate in the 1945 Standard Industrial Classification. These were Small Leather Goods (old SIC Industry 3172) and Jewelry and Instrument Cases (old SIC Industry 3986). The data for 1954 and earlier years for these two industries have been combined. The details of the revisions are described in the text.

<sup>11</sup>Comparable figures for earlier years are not available.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3151.—LEATHER GLOVES													
Total.....	166	87	7,718	24,439	6,899	12,244	19,481	232,194	46,694	280,640	328	6,212	225,999
Northeast.....	93	44	4,127	12,887	3,668	6,173	10,286	16,344	27,432	44,967	175	3,166	13,211
New York.....	85	41	3,910	12,232	3,465	5,805	9,740	15,520	26,559	43,250	160	2,838	11,805
East North Central.....	37	25	2,213	7,072	2,015	3,862	5,785	8,936	11,430	20,886	65	2,037	8,675
Illinois.....	7	5	584	1,763	538	1,119	1,491	1,867	3,352	5,655	43	579	2,830
Wisconsin.....	20	14	1,155	3,780	1,048	1,968	3,059	4,556	5,687	10,376	14	882	3,547
West North Central.....	9	7	537	1,760	444	770	1,234	2,557	2,913	5,601	24	312	1,186
Iowa.....	4	4	383	1,263	300	493	785	1,799	1,963	3,762	14	(3)	(3)
South.....	5	5	475	1,361	456	858	1,242	2,285	2,581	4,863	41	459	1,691
West.....	22	6	366	1,359	316	581	934	2,072	2,338	4,323	23	238	1,236
Oregon.....	8	2	147	635	134	279	407	1,057	1,314	2,278	14	(3)	(3)
California.....	9	4	181	612	149	250	439	860	900	1,761	5	149	941
INDUSTRY 3161.—LUGGAGE													
Total.....	379	145	16,409	62,853	14,134	26,340	46,715	112,796	100,363	210,303	1,908	15,856	96,560
New England.....	30	10	1,386	5,259	1,184	2,097	3,518	11,716	11,904	23,403	133	1,390	8,536
Massachusetts.....	21	7	505	1,664	428	755	1,304	2,289	3,508	5,851	65	657	3,086
Middle Atlantic.....	185	84	6,688	23,991	5,884	10,738	18,971	40,645	40,703	80,967	457	7,342	41,720
New York.....	133	53	3,904	13,745	3,457	6,608	10,831	24,199	22,767	47,140	336	4,485	26,211
New Jersey.....	31	20	1,923	7,486	1,690	2,882	5,854	11,125	11,342	22,028	65	2,091	11,524
Pennsylvania.....	21	11	861	2,760	737	1,248	2,286	5,321	6,594	11,808	56	766	3,985
East North Central.....	85	23	1,850	6,888	1,611	3,185	5,066	10,505	10,424	20,964	142	1,907	11,124
Ohio.....	12	2	181	744	159	306	559	1,069	935	2,026	6	166	965
Indiana.....	6	4	262	973	236	475	813	1,206	1,787	2,958	5	(3)	(3)
Illinois.....	47	11	1,059	4,025	909	1,789	2,766	6,360	6,375	12,784	105	1,006	5,984
Michigan.....	6	1	109	382	93	184	286	650	300	921	2	150	976
Wisconsin.....	14	5	239	764	214	431	642	1,220	1,027	2,275	24	489	2,835
West North Central.....	14	6	893	3,134	808	1,547	2,596	4,857	4,394	9,171	48	1,034	4,729
Missouri.....	10	5	783	2,785	716	1,385	2,339	4,150	3,975	8,052	32	1,014	4,679
South Atlantic.....	15	7	1,434	4,440	1,290	2,495	3,688	10,566	8,438	17,953	(D)	1,529	8,197
East South Central.....	7	3	567	1,739	411	714	1,051	4,018	4,632	9,017	(D)		
West South Central.....	8	3	291	1,025	265	485	826	1,739	1,444	3,002	(D)		
West.....	35	9	3,300	16,377	2,681	5,079	10,999	28,750	18,424	45,817	670	2,654	22,254
INDUSTRY 3171.—HANDBAGS AND PURSES													
Total.....	545	262	24,548	88,455	22,001	41,752	70,058	142,554	137,107	280,343	1,890	21,971	111,545
New England.....	26	15	1,953	7,064	1,655	3,104	5,502	9,478	9,106	18,770	94	2,269	10,662
Massachusetts.....	19	9	1,136	4,119	1,005	1,816	2,993	6,096	4,995	11,128	38	1,428	5,985
Middle Atlantic.....	440	214	19,633	70,872	17,683	33,605	56,426	117,392	113,573	231,485	1,453	17,756	90,255
New York.....	384	174	14,685	53,552	13,130	24,895	42,267	88,840	88,849	178,248	1,074	13,357	69,911
New Jersey.....	40	26	3,594	13,275	3,315	6,395	10,867	22,035	19,046	41,021	256	3,133	14,514
Pennsylvania.....	16	14	1,354	4,045	1,238	2,315	3,292	6,517	5,678	12,216	123	1,266	5,830
North Central.....	18	10	1,126	4,198	1,002	1,957	3,166	6,142	5,292	11,461	93	888	4,629
South.....	39	13	983	2,880	893	1,683	2,393	4,405	5,133	9,511	193	601	3,206
West.....	22	10	853	3,441	768	1,403	2,571	5,137	4,003	9,116	57	457	2,793
INDUSTRY 3172.—SMALL LEATHER GOODS													
Total.....	340	117	12,432	47,352	10,320	19,580	32,077	82,385	76,603	159,013	1,262	13,657	75,791
New England.....	42	21	1,866	8,106	1,496	2,817	5,209	13,764	10,004	23,776	211	3,945	22,467
Massachusetts.....	22	12	1,422	6,614	1,119	2,055	4,131	11,486	7,523	19,011	(D)	2,409	13,222
Middle Atlantic.....	206	68	6,905	24,905	5,993	11,496	18,423	43,383	46,527	90,393	579	6,764	33,967
New York.....	161	51	5,176	18,553	4,472	8,560	13,666	32,943	30,566	63,518	417	4,149	21,823
New Jersey.....	36	14	1,351	4,914	1,182	2,264	3,703	8,396	13,901	22,806	82	1,958	9,282
Pennsylvania.....	9	3	378	1,438	339	672	1,054	2,044	2,060	4,069	80	657	2,862
North Central.....	44	18	2,726	11,269	2,034	3,790	6,351	20,923	16,137	36,414	331	2,257	15,843
Illinois.....	20	10	745	2,814	646	1,180	1,994	4,919	5,892	10,696	48	696	4,186
South.....	19	7	738	2,243	635	1,149	1,520	2,964	2,756	5,903	123	691	3,514
Florida.....	5	3	328	840	277	497	613	900	658	1,680	(D)		
West.....	29	3	197	829	162	328	574	1,351	1,179	2,527	18		

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
	INDUSTRY 3199.—LEATHER GOODS, N.E.C.												
Total.....	370	67	4,989	18,742	4,209	8,507	13,668	32,730	34,827	67,058	766	5,405	31,227
New England.....	37	9	530	1,797	430	779	1,300	3,255	2,831	5,833	77	500	2,475
Massachusetts....	27	6	380	1,248	307	543	932	2,179	2,143	4,078	34	362	1,730
Middle Atlantic....	121	19	1,450	5,853	1,222	2,539	4,070	10,020	10,132	20,078	193	2,325	14,100
New York.....	94	16	1,208	4,929	1,033	2,136	3,480	8,291	8,155	16,334	158	1,906	11,736
Pennsylvania.....	18	2	197	771	153	318	471	1,377	1,710	3,119	19	299	1,760
East North Central.	54	8	632	2,440	533	1,108	1,730	4,186	3,630	7,826	106	584	3,417
Ohio.....	17	2	108	352	84	183	251	676	729	1,399	20	117	590
Illinois.....	26	5	453	1,839	389	779	1,256	2,998	2,611	5,627	72	359	2,136
West North Central.	15	4	153	530	118	220	341	932	856	1,783	17	77	393
Missouri.....	9	3	117	441	86	168	267	714	656	1,368	(D)	( <sup>3</sup> )	( <sup>3</sup> )
South Atlantic.....	23	6	729	2,442	664	1,288	2,006	3,711	4,431	8,160	70	792	3,748
Georgia.....	8	3	412	1,516	388	775	1,287	2,065	2,489	4,578	28	454	2,206
East South Central.	14	5	525	1,858	461	897	1,504	3,850	5,468	9,293	79	305	1,497
Tennessee.....	9	4	445	1,572	388	776	1,266	3,336	4,913	8,216	(D)	( <sup>3</sup> )	( <sup>3</sup> )
West South Central.	36	5	403	1,417	329	716	1,059	2,889	3,209	5,917	56	231	1,575
Texas.....	27	5	357	1,254	293	638	939	2,397	2,929	5,339	46	( <sup>3</sup> )	( <sup>3</sup> )
West.....	70	11	567	2,405	452	960	1,658	3,887	4,270	8,168	168	591	4,022
Colorado.....	11	5	171	821	128	257	475	1,255	1,506	2,744	96	126	846
California.....	40	4	289	1,200	240	513	912	1,976	2,083	4,076	53	357	2,563

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3151, Leather Gloves: New England—Vermont, 2 (20-99); Massachusetts, 1 (1-19); Middle Atlantic—New Jersey, 1 (20-99); Pennsylvania, 4 (20-99); East North Central—Ohio, 3 (20-99); Indiana, 4 (263); Michigan, 3 (100-249); West North Central—Minnesota, 4 (20-99); Missouri, 1 (20-99); East South Central—Kentucky, 1 (20-99); Tennessee, 3 (100-249); West South Central—Arkansas, 1 (100-249); Mountain—Idaho, 2 (1-19); Pacific—Washington, 3 (20-99).

SIC 3161, Luggage: New England—Maine, 1 (1-19); New Hampshire, 1 (250-499); Rhode Island, 6 (509); Connecticut, 1 (20-99); West North Central—Minnesota, 1 (1-19); Iowa, 1 (20-99); Nebraska, 1 (1-19); Kansas, 1 (1-19); South Atlantic—Delaware, 2 (500-999); Maryland, 3 (194); Virginia, 1 (500-999); West Virginia, 1 (1-19); North Carolina, 2 (1-19); Georgia, 2 (100-249); Florida, 4 (20-99); East South Central—Kentucky, 2 (1-19); Tennessee, 4 (414); Mississippi, 1 (100-249); West South Central—Oklahoma, 1 (100-249); Texas, 7 (100-249); Mountain—Colorado, 4 (2,500-4,999); Arizona, 1 (1-19); Pacific—Washington, 4 (227); California, 26 (529).

SIC 3171, Handbags and Purses: New England—Maine, 1 (20-99); Vermont, 2 (250-499); Connecticut, 4 (250-499); East North Central—Indiana, 1 (1-19); Illinois, 6 (100); Wisconsin, 1 (100-249); West North Central—Missouri, 10 (500-999); South Atlantic—North Carolina, 2 (1-19); Georgia, 2 (100-249); Florida, 15 (487); East South Central—Tennessee, 9 (100-249); West South Central—Arkansas, 1 (20-99); Oklahoma, 5 (20-99); Texas, 5 (114); Mountain—Arizona, 1 (1-19); Pacific—Washington, 1 (1-19); California, 18 (812); Hawaii, 2 (1-19).

SIC 3172, Small Leather Goods: New England—Maine, 1 (1-19); Rhode Island, 15 (389); Connecticut, 4 (20-99); East North Central—Ohio, 9 (215); Indiana, 3 (20-99); Michigan, 4 (1-19); Wisconsin, 4 (500-999); West North Central—Missouri, 3 (1,000-2,499); Kansas, 1 (1-19); South Atlantic—Maryland, 2 (1-19); North Carolina, 2 (1-19); East South Central—Tennessee, 2 (1-19); West South Central—Arkansas, 1 (100-249); Oklahoma, 2 (100-249); Texas, 5 (100); Mountain—Colorado, 1 (1-19); Pacific—Washington, 1 (1-19); Oregon, 3 (20-99); California, 24 (150).

SIC 3199, Leather Goods, N.E.C.: New England—Maine, 1 (1-19); New Hampshire, 1 (20-99); Vermont, 1 (20-99); Rhode Island, 3 (20-99); Connecticut, 4 (1-19); Middle Atlantic—New Jersey, 9 (20-99); East North Central—Indiana, 3 (1-19); Wisconsin, 8 (20-99); West North Central—Minnesota, 1 (1-19); Iowa, 4 (20-99); Nebraska, 1 (1-19); South Atlantic—Maryland, 2 (100-249); Virginia, 2 (20-99); West Virginia, 1 (1-19); North Carolina, 5 (20-99); Florida, 5 (20-99); East South Central—Kentucky, 3 (20-99); Alabama, 1 (1-19); Mississippi, 1 (1-19); West South Central—Arkansas, 3 (1-19); Louisiana, 1 (1-19); Oklahoma, 5 (20-99); Mountain—Montana, 1 (1-19); Idaho, 3 (20-99); New Mexico, 2 (1-19); Arizona, 1 (1-19); Utah, 3 (20-99); Pacific—Oregon, 9 (20-99).

<sup>2</sup>See text regarding comparability of 1963 data with earlier years.

<sup>3</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.



TABLE 3. Detailed Statistics: 1963

Item	Leather gloves (SIC 3151)	Luggage (SIC 3161)	Handbags and purses (SIC 3171)	Small leather goods (SIC 3172)	Leather goods, n.e.c. (SIC 3199)
Primary product specialization ratio <sup>1</sup> .....	.81	.95	.98	.96	.94
Coverage ratio <sup>2</sup> .....	.89	.94	.98	.92	.82
Establishments, total.....number..	166	379	545	340	370
With 1 to 19 employees.....do....	79	234	283	223	303
With 20 to 99 employees.....do....	66	102	190	88	62
With 100 employees or more.....do....	21	43	72	29	5
Proprietors and working partners.....do....	92	202	258	191	265
All employees (average for the year).....do....	7,718	16,409	24,548	12,432	4,989
Payroll (all employees), total for year.....\$1,000..	24,439	62,853	88,455	47,352	18,742
Production workers:					
Average for the year.....number..	6,899	14,134	22,001	10,320	4,209
March.....do....	6,394	13,184	23,289	9,655	4,121
May.....do....	6,707	14,092	18,794	9,260	4,195
August.....do....	7,259	14,877	22,805	10,833	4,257
November.....do....	7,236	14,383	23,116	11,532	4,263
Man-hours.....1,000..	12,244	26,340	41,752	19,580	8,507
January-March.....do....	2,752	6,070	10,852	4,453	2,009
April-June.....do....	3,000	6,739	9,069	4,441	2,102
July-September.....do....	3,276	6,819	10,678	5,055	2,108
October-December.....do....	3,216	6,712	11,153	5,631	2,288
Wages.....\$1,000..	19,481	46,715	70,058	32,077	13,668
Cost of materials, etc., total.....do....	46,694	100,363	137,107	76,603	34,827
Materials, parts, containers, and supplies consumed.....do....	34,295	93,531	123,542	62,449	29,804
Cost of resales.....do....	7,502	4,405	3,231	5,952	4,422
Fuels consumed.....do....	138	276	188	201	87
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	7	48	39	28	10
Cost.....\$1,000..	146	781	741	537	181
Generated less sold.....million kw.-hrs..	-	(D)	-	(D)	(D)
Contract work.....\$1,000..	4,613	1,370	9,405	7,464	333
Value of shipments (including resales), total.....do....	80,640	210,303	280,343	159,013	67,058
Value of resales.....do....	9,201	6,297	4,989	8,087	6,641
Value added by manufacture, adjusted.....do....	32,194	112,796	142,554	82,385	32,730
Manufacturers' inventories:					
Beginning of year, total.....do....	16,532	33,312	19,632	21,192	9,345
Finished products.....do....	8,370	14,745	8,875	9,924	4,349
Work-in-process.....do....	3,347	4,386	3,431	3,210	839
Materials, supplies, fuel, etc.....do....	4,815	14,180	7,326	8,058	4,157
End of year, total.....do....	14,858	36,292	18,808	20,915	9,527
Finished products.....do....	6,828	17,731	8,365	9,764	4,641
Work-in-process.....do....	3,137	4,256	3,259	3,345	1,046
Materials, supplies, fuel, etc.....do....	4,893	14,305	7,184	7,806	3,840
Expenditures for plant and equipment, total.....do....	370	2,159	2,033	1,352	798
New, total.....do....	328	1,908	1,890	1,262	766
New structures and additions to plant.....do....	96	139	282	130	209
New machinery and equipment.....do....	232	1,769	1,608	1,132	557
Used plant and equipment.....do....	42	251	143	90	32
Selected operating ratios:					
Payroll/Total employment.....	3,166	3,830	3,603	3,809	3,757
Production workers/Total employment.....	.89	.86	.90	.83	.84
Man-hours/Production workers.....	1,775	1,878	1,898	1,897	2,021
Production worker wages/Man-hours.....	1.59	1.76	1.68	1.64	1.61
Cost of materials and payrolls/Total value of shipments....	.88	.78	.80	.78	.80
Cost of materials/Total value of shipments.....	.58	.48	.49	.48	.52
Adjusted value added/Total employment.....	4,171	6,847	5,807	6,627	6,560
Salaries and wages/Adjusted value added.....	.76	.56	.62	.57	.57

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3151.—LEATHER GLOVES											
Establishments.....number..	166	34	24	21	39	27	17	3	1	-	-
All employees:											
Total.....do....	7,718	55	158	300	1,250	1,901	2,528	<u>1,526</u>	(D)	-	-
Payroll.....\$1,000..	24,439	116	455	779	4,309	6,118	7,561	<u>5,105</u>	(D)	-	-
Value added, adjusted.....do....	32,194	254	1,018	1,392	5,805	7,841	10,099	<u>5,785</u>	(D)	-	-
Value of shipments.....do....	80,640	554	2,968	2,889	12,762	19,631	25,000	<u>16,836</u>	(D)	-	-
Capital expenditures, new...do....	328	<u>16</u>	(D)	11	67	100	108	<u>26</u>	(D)	-	-
INDUSTRY 3161.—LUGGAGE											
Establishments.....number..	379	113	59	62	70	32	39	9	1	-	1
All employees:											
Total.....do....	16,409	231	410	831	2,207	2,150	4,202	<u>6,378</u>	(D)	-	(D)
Payroll.....\$1,000..	62,853	701	1,504	3,411	7,669	7,739	15,165	<u>26,664</u>	(D)	-	(D)
Value added, adjusted.....do....	112,796	1,656	2,516	5,806	12,825	12,599	24,965	<u>52,431</u>	(D)	-	(D)
Value of shipments.....do....	210,303	3,219	5,317	11,915	23,602	23,398	54,734	<u>88,118</u>	(D)	-	(D)
Capital expenditures, new...do....	1,908	19	52	49	170	203	524	<u>891</u>	(D)	-	(D)
INDUSTRY 3171.—HANDBAGS AND PURSES											
Establishments.....number..	545	117	62	104	129	61	56	15	1	-	-
All employees:											
Total.....do....	24,548	229	423	1,492	4,287	4,234	8,338	<u>5,545</u>	(D)	-	-
Payroll.....\$1,000..	88,455	855	1,372	5,294	15,000	15,740	29,259	<u>20,935</u>	(D)	-	-
Value added, adjusted.....do....	142,554	2,157	2,301	8,225	25,656	24,880	45,353	<u>33,982</u>	(D)	-	-
Value of shipments.....do....	280,343	4,147	5,927	16,256	48,075	49,076	91,984	<u>64,878</u>	(D)	-	-
Capital expenditures, new...do....	1,890	27	35	94	363	320	595	<u>456</u>	(D)	-	-
INDUSTRY 3172.—SMALL LEATHER GOODS											
Establishments.....number..	340	106	63	54	56	32	23	1	5	-	-
All employees:											
Total.....do....	12,432	191	425	725	1,583	2,336	3,926	(D)	3,246	-	-
Payroll.....\$1,000..	47,352	647	1,510	2,608	5,205	8,762	15,021	(D)	13,599	-	-
Value added, adjusted.....do....	82,385	1,666	2,941	4,864	8,370	14,043	24,884	(D)	25,617	-	-
Value of shipments.....do....	159,013	4,324	7,502	15,544	16,942	29,460	42,542	(D)	42,699	-	-
Capital expenditures, new...do....	1,262	22	61	101	121	173	<u>330</u>	(D)	454	-	-
INDUSTRY 3199.—LEATHER GOODS, N.E.C.											
Establishments.....number..	370	177	63	63	44	18	4	1	-	-	-
All employees:											
Total.....do....	4,989	327	438	846	1,302	1,207	869	(D)	-	-	-
Payroll.....\$1,000..	18,742	1,032	1,755	3,074	5,196	4,560	3,125	(D)	-	-	-
Value added, adjusted.....do....	32,730	2,475	3,149	5,468	8,707	7,617	<u>5,314</u>	(D)	-	-	-
Value of shipments.....do....	67,058	4,967	6,234	10,273	17,242	15,783	<u>12,559</u>	(D)	-	-	-
Capital expenditures, new...do....	766	87	111	177	254	66	<u>71</u>	(D)	-	-	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

n.e.c. Not elsewhere classified.



**TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(Col. B Col. B+C (percent))	(Col. B Col. B+C (percent))	(Col. B Col. B+C (percent))	(Col. B Col. B+C (percent))	(Col. B Col. B+C (percent))	(Col. B Col. B+C (percent))	(Col. B Col. B+C (percent))	(Col. B Col. B+C (percent))	(Col. B Col. B+C (percent))
		(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)
		A	B	C	D	E	F	G	H	I
3151	Leather gloves.....1963..	80,640	55,424	13,235	11,981	81	61,942	55,424	6,518	89
	.....1958..	54,155	42,599	7,389	4,167	85	49,319	42,599	6,720	86
3161	Luggage.....1963..	210,303	191,562	10,460	8,281	95	204,755	191,562	13,193	94
	.....1958..	184,722	171,090	9,276	4,356	95	180,481	171,090	9,391	95
3171	Handbags and purses.....1963..	280,343	261,269	6,598	12,476	98	266,099	261,269	4,830	98
	.....1958..	231,110	210,769	9,375	10,966	96	214,106	210,769	3,337	98
3172	Small leather goods.....1963..	159,013	141,211	6,270	11,532	96	154,270	141,211	13,059	92
	.....1958..	138,052	117,709	11,416	8,927	91	134,728	117,709	17,019	87
3199	Leather goods, n.e.c.....1963..	67,058	55,117	3,729	8,212	94	67,066	55,117	11,949	82
	.....1958..	60,178	51,449	2,092	6,637	96	61,198	51,449	9,749	84

n.e.c. Not elsewhere classified.

**TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963**

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)

miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Leather gloves (SIC 3151)	Other industries
<b>LEATHER GLOVES INDUSTRY</b>				
31510	Value of shipments.....	(X)	80,640	(X)
	Dress and work gloves and mittens, all leather.....	61,942	55,424	<sup>1</sup> 6,518
	Secondary products.....	(X)	13,235	(X)
23811	Dress gloves and mittens made from woven or purchased knit fabrics.....	(X)	9,429	(X)
23812	Work gloves and mittens made from woven or purchased knit fabrics.....	(X)	2,905	(X)
	Other secondary products.....	(X)	901	(X)
	Miscellaneous receipts, total.....	(X)	11,981	(X)
	Resales.....	(X)	9,201	(X)
	Other, including contract and commission receipts.....	(X)	2,780	(X)
<b>LUGGAGE INDUSTRY</b>				
31610	Value of shipments.....	(X)	210,303	(X)
	Suitcases, briefcases, bags, and musical instrument cases.....	204,755	191,562	<sup>2</sup> 11,145
	Secondary products.....	(X)	<sup>3</sup> 10,460	(X)
	Miscellaneous receipts, total.....	(X)	8,281	(X)
	Resales.....	(X)	6,297	(X)
	Other, including contract and commission receipts.....	(X)	1,984	(X)

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Handbags and purses (SIC 3171)	Small leather goods (SIC 3172)	Other industries
HANDBAGS AND PURSES INDUSTRY					
31710	Value of shipments.....	(X)	280,343	(X)	(X)
	Women's handbags and purses.....	266,099	261,269	2,010	2,820
	Secondary products.....	(X)	6,598	(X)	(X)
	Miscellaneous receipts, total.....	(X)	12,476	(X)	(X)
	Resales.....	(X)	4,989	(X)	(X)
	Other, including contract and commission receipts.....	(X)	7,487	(X)	(X)
		All industries	Small leather goods (SIC 3172)	Other industries	
SMALL LEATHER GOODS INDUSTRY					
31720	Total value of shipments.....	(X)	159,013	(X)	
	Personal leather goods, except handbags and purses.....	154,270	141,211	413,059	
31610 31710	Secondary products, total.....	(X)	6,270	(X)	
	Suitcases, briefcases, bags, and musical instrument cases.....	(X)	2,048	(X)	
31710	Women's handbags and purses.....	(X)	2,010	(X)	
	Other secondary products.....	(X)	2,212	(X)	
	Miscellaneous receipts, total.....	(X)	11,532	(X)	
	Resales.....	(X)	8,087	(X)	
	Other miscellaneous receipts including contract and commission receipts.....	(X)	3,445	(X)	
		All industries	Leather goods, n.e.c. (SIC 3199)	Other industries	
LEATHER GOODS, N.E.C., INDUSTRY					
31990	Value of shipments.....	(X)	67,058	(X)	
	Saddlery, harness and whip and other leather products, n.e.c.....	67,066	55,117	511,949	
	Secondary products.....	(X)	3,729	(X)	
	Miscellaneous receipts, total.....	(X)	8,212	(X)	
	Resales.....	(X)	6,641	(X)	
	Other miscellaneous receipts.....	(X)	1,571	(X)	

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>The following industry had shipments which totaled \$2 million or more but is withheld to avoid disclosing figures for individual companies: 2381, Fabric Dress and Work Gloves.

<sup>2</sup>The following industry had shipments which totaled \$2 million or more but is withheld to avoid disclosing figures for individual companies: 3941, Games and Toys.

<sup>3</sup>Includes the following product class which totals \$2 million or more but is withheld to avoid disclosing individual company figures: 39492, Other sporting and athletic goods.

<sup>4</sup>The following industry had shipments which totaled \$2 million or more but is withheld to avoid disclosing individual company figures: 3851, Ophthalmic Goods.

<sup>5</sup>Includes \$2 million or more made in industry 2387, Apparel Belts, but is withheld to avoid disclosing individual company figures.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3151- --	LEATHER DRESS, SEMIDRESS, AND WORK GLOVES, TOTAL <sup>1 2</sup> .....	1,000 doz. pr.	2,720	61,942	2,272	49,319
31510 12	Men's and boys':					
	As reported in the census of manufactures.....	..do.....	819	23,822	705	20,469
	As reported on Census Annual Form MA-23D <sup>3</sup> .....	..do.....	776	(NA)	705	(NA)
	Block cut.....	..do.....	579	(NA)	556	(NA)
	Table cut.....	..do.....	65	(NA)	68	(NA)
	All other.....	..do.....	132	(NA)	81	(NA)
31510 52	Women's and children's:					
	As reported in the census of manufactures.....	..do.....	323	11,786	288	9,056
	As reported on Census Annual Form MA-23D <sup>3</sup> .....	..do.....	284	(NA)	288	(NA)
	Block cut.....	..do.....	114	(NA)	154	(NA)
	Table cut.....	..do.....	142	(NA)	83	(NA)
	All other.....	..do.....	28	(NA)	51	(NA)
31510 79	All leather work gloves and mittens, including fur:					
	As reported in the census of manufactures.....	..do.....	1,417	22,660	1,279	19,794
	As reported on Census Annual Form MA-23D <sup>3</sup> .....	..do.....	1,481	(NA)	1,279	(NA)
	All-grain, except welders'.....	..do.....	954	(NA)	906	(NA)
	All-split, except welders'.....	..do.....	305	(NA)	223	(NA)
	Welders'.....	..do.....	155	(NA)	113	(NA)
	All other leather gloves and mittens.....	..do.....	67	(NA)	37	(NA)
31510 00	Leather gloves and mittens, n.s.k.....	..do.....	4161	3,674	(X)	(X)
3161- --	LUGGAGE, TOTAL <sup>5</sup> .....		(X)	204,755	(X)	180,481
	Women's hand luggage (except zippered luggage):					
	As reported on Census Monthly Form M31E.....	1,000 units...	67,975	664,794	(X)	(X)
	As reported in the census of manufactures.....	..do.....	8,873	672,373	710,860	767,951
	Overnight, weekend, traincases, pullman, hat and shoe, wardrobe, overseas and hat boxes:					
31610 15	Hard side (except molded).....	..do.....	5,090	25,626	710,860	767,951
31610 17	Soft side (lock construction).....	..do.....	685	8,439		
31610 22	Molded, all types.....	..do.....	2,959	36,713		
31610 25	Other women's hand luggage, including cosmetic cases, etc., but excluding vanity cases.....	..do.....	139	1,595		
	Men's hand luggage (except zippered luggage):					
	As reported on Census Monthly Form M31E.....	..do.....	1,641	22,649	(X)	(X)
	As reported in the census of manufactures.....	..do.....	1,802	24,779	73,171	732,967
31610 35	Hard side (except molded).....	..do.....	638	5,797	73,171	732,967
31610 37	Soft side (lock construction).....	..do.....	219	3,770		
31610 32	Molded, all types.....	..do.....	945	15,212		
31610 30	Zippered hand luggage, men's and women's:					
	As reported in the census of manufactures.....	..do.....	6,313	30,792	(7)	(7)
	As reported on Census Monthly Form M31E.....	..do.....	5,076	29,530	(X)	(X)
31610 53	Occupational luggage cases, sample cases, binocular and camera cases.....	..do.....	1,226	7,294	(NA)	14,308
31610 63	Trunks, hand trunks, and lockers:					
	As reported in the census of manufactures.....	..do.....	961	5,950	664	5,291
	As reported on Census Monthly Form M31E.....	..do.....	963	6,344	(X)	(X)
	Brief bags, briefcases, envelopes and zippered ring binders, attache' cases, and catalog cases:					
	As reported in the census of manufactures.....	..do.....	4,456	26,227	87,464	820,054
	As reported on Census Monthly Form M31E.....	..do.....	3,397	19,835	(X)	(X)
	Brief bags:					
	Split leather:					
31610 71	As reported in the census of manufactures.....	..do.....	213	1,486	(NA)	(NA)
	As reported on Census Monthly Form M31E.....	..do.....	278	(NA)	(X)	(X)
31610 72	Top grain leather:					
	As reported in the census of manufactures.....	..do.....	124	1,663	(NA)	(NA)
	As reported on Census Monthly Form M31E.....	..do.....	142	(NA)	(X)	(X)
31610 74	Imitation leather:					
	As reported in the census of manufactures.....	..do.....	1,243	3,569	(NA)	(NA)
	As reported on Census Monthly Form M31E.....	..do.....	882	(NA)	(X)	(X)

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3161- --	LUGGAGE—Continued					
	Brief bags, briefcases, envelopes and zippered ring binders attache cases, and catalogue cases:—continued					
	As reported on Census Monthly Form M31E—continued					
	Envelopes (under arm cases and portfolios), and zippered ring binders:					
31610 75	As reported in the census of manufactures.....	1,000 units....	804	3,781	(NA)	(NA)
	As reported on Census Monthly Form M31E.....	...do.....	756	(NA)	(X)	(X)
	Attache' cases:					
31610 76	As reported in the census of manufactures.....	...do.....	2,002	14,817	( <sup>8</sup> )	( <sup>8</sup> )
	As reported on Census Monthly Form M31E.....	...do.....	1,269	(NA)	(X)	(X)
	Catalogue cases:					
31610 77	As reported in the census of manufactures.....	...do.....	70	911	( <sup>8</sup> )	( <sup>8</sup> )
	As reported on Census Monthly Form M31E.....	...do.....	70	(NA)	(X)	(X)
	School bags:					
31610 78	As reported in the census of manufactures.....	...do.....	2,212	3,453	(NA)	(NA)
	As reported on Census Monthly Form M31E.....	...do.....	2,181	2,837	(X)	(X)
31610 81	Musical instrument cases.....	...do.....	1,429	6,608	(X)	4,096
31610 98	Other luggage.....	.....	(X)	11,699	(X)	819,570
31610 00	Luggage, n.s.k.....	.....	(X)	15,580	(X)	16,244
3171- --	LADIES' AND CHILDREN'S HANDBAGS AND PURSES, TOTAL.....	.....	(X)	266,099	(X)	214,106
31710 11	All leather and chiefly leather.....	1,000 units....	14,720	67,646	15,685	72,826
31710 51	Plastic or chiefly plastic.....	...do.....	70,571	140,563	48,131	75,260
31710 71	Other materials, except precious metals.....	...do.....	10,312	30,945	11,909	36,065
31710 00	Ladies' and children's handbags and purses, n.s.k.....	.....	(X)	26,945	(X)	29,955
3172- --	SMALL LEATHER GOODS, TOTAL <sup>5</sup> .....	.....	(X)	154,270	(X)	134,728
	Travel kits (fitted and unfitted):					
31720 31	As reported in the census of manufactures.....	1,000 units....	2,467	7,090	1,620	3,934
	As reported on Census Monthly Survey M31E.....	...do.....	2,278	6,030	( <sup>9</sup> )	( <sup>9</sup> )
	Billfolds, wallets, and French purses:					
	As reported in the census of manufactures.....	...do.....	46,207	68,566	36,663	57,034
	As reported on Census Monthly Survey M31E.....	...do.....	33,127	56,861	( <sup>9</sup> )	( <sup>9</sup> )
	Leather:					
31720 11	As reported in the census of manufactures.....	...do.....	32,109	58,157	27,608	52,102
	As reported on Census Monthly Survey M31E.....	...do.....	29,277	(NA)	( <sup>9</sup> )	( <sup>9</sup> )
	Plastic:					
31720 15	As reported in the census of manufactures.....	...do.....	14,098	10,409	8,755	4,754
	As reported on Census Monthly Survey M31E.....	...do.....	3,850	(NA)	( <sup>9</sup> )	( <sup>9</sup> )
31720 17	Other materials.....	...do.....	( <sup>10</sup> )	( <sup>10</sup> )	300	178
	Other personal leather goods (key cases, cigarette cases, vanity cases, clutches, secretaries, pass cards, tobacco pouches, cosmetic bags, etc.): <sup>11</sup>					
31720 19	As reported in the census of manufactures.....	.....	(X)	41,195	(X)	11,622
	As reported on Census Monthly Survey M31E.....	1,000 units....	(X)	28,152	( <sup>9</sup> )	( <sup>9</sup> )
	Jewelry boxes and cases, and instrument cases, except musical instrument cases, total.....	...do.....	31,731	25,737	(X)	55,697
31720 53	Jewelry boxes and cases.....	...do.....	29,235	19,791	(X)	55,697
31720 55	Instrument cases, except musical instrument cases.....	...do.....	2,496	5,946	(X)	
31720 00	Small leather goods, n.s.k.....	.....	(X)	11,682	(X)	6,441

See footnotes at end of table.



**TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Value of shipments including interplant transfers (\$1,000)	
		1963	1958
3199- --	LEATHER GOODS, N.E.C., TOTAL <sup>12</sup> .....	67,066	61,198
31990 11	Leather novelties .....	13,165	20,177
31990 31	Saddlery and harness and accouterments .....	21,376	14,178
31990 98	Other leather goods, n.e.c. ....	20,963	10,358
31990 00	Leather goods, n.s.k. ....	11,562	16,485

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Establishments in this industry were requested to report value of shipments in 1963 and value of production in 1958. this change does not significantly affect the comparability of the data for the two years. (See text.)

<sup>2</sup>Includes only all-leather gloves and mittens. Leather and fabric combinations are classified in industry 2381, Fabric Dress and Work Gloves.

<sup>3</sup>The quantity data reported on Census Annual Form MA-23D. "Gloves and Mittens" represent quantity produced rather than quantity shipped.

<sup>4</sup>Quantity estimated, based on average quantity-value relationship of all other products.

<sup>5</sup>The reasons for the differences between the 1963 data collected in the census of manufactures and the current monthly survey M31E are discussed in the text. The M31E survey was not conducted in 1958, and all data for that year are from the census of manufactures.

<sup>6</sup>For 1963, data collected in the census of manufactures are not completely comparable to those collected on the census monthly survey M31E to the extent that vanity cases are included in the monthly survey data but are classified in industry 3172, Small Leather Goods, in the census of manufactures.

<sup>7</sup>For 1958, separate data were not collected for zippered hand luggage. Figures for this item were included with women's and men's hand luggage, as applicable. Therefore, the data are not comparable to the 1963 information. Detailed figures were collected in 1958 by type of material (leather, plastic, and other) and are published in the census of manufactures report for that year.

<sup>8</sup>For 1958, figures for attache' cases and catalog cases were not collected separately but were included with "Other Luggage."

<sup>9</sup>For 1963, quantity data for these items were also collected on Census Form M31E, Luggage, Briefcases, and Personal Leather Goods. Since this survey was begun in 1960, comparable data are not available for 1958. The 1958 data are as collected in the census of manufactures for that year.

<sup>10</sup>For 1963, no category was provided to report billfolds, wallets, and French purses of materials other than leather and plastic in either the census of manufactures or survey M31E. No information is available on where these were reported for 1963.

<sup>11</sup>The data as reported in the census of manufactures are not completely comparable to the data reported on survey M31E. On survey M31E, vanity cases are included with "Other women's hand luggage", product code 3161025, while on the census they are included in product code 3172019. The quantity of this item is not known.

<sup>12</sup>The products of this industry only include leather goods that are not classified in other industries. (See text.)

**TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
315-	Leather gloves.....1963..	123	115
	.....1958..	103	109
3151	Leather dress, semidress, and work gloves.....1963..	123	115
	.....1958..	103	109
316-	Luggage.....1963..	120	115
	.....1958..	106	104
3161	Luggage.....1963..	120	115
	.....1958..	106	104
317-	Handbags and purses.....1963..	122	116
	.....1958..	109	108
3171	Ladies' and childrens' handbags and purses.....1963..	117	127
	.....1958..	107	111
3172	Small leather goods.....1963..	130	99
	.....1958..	112	102

**TABLE 6C. Product Classes—Value Shipped by All Manufacturing Establishments:  
1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
31510	Dress and work gloves and mittens, all leather <sup>2</sup> .....	61,942	45,156	52,881	55,112	57,163	49,319	43,601	61,362
31610	Suitcases, briefcases, bags, and musical instrument cases.....	204,755	211,041	187,713	196,748	(S)	<sup>3</sup> 180,481	158,949	127,863
31710	Women's handbags and purses.....	266,099	242,407	237,862	237,643	237,777	214,106	180,309	161,080
31720	Personal leather goods, except handbags and purses.....	154,270	139,622	127,350	135,094	145,100	<sup>4</sup> 134,728	121,314	(NA)
31990	Saddlery, harness and whip and other leather products, n.e.c.....	67,066	67,809	63,777	63,194	63,912	61,198	54,332	64,056

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>2</sup>See text regarding comparability of 1963 data with earlier years.

<sup>3</sup>See footnote 3, table 1.

<sup>4</sup>See footnote 10, table 1.

**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments,  
by Geographic Areas: 1963**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments
DRESS AND WORK GLOVES AND MITTENS, ALL LEATHER (31510)	1963 <sup>1</sup>	DRESS AND WORK GLOVES AND MITTENS, ALL LEATHER (31510)—Continued	1963 <sup>1</sup>	DRESS AND WORK GLOVES AND MITTENS, ALL LEATHER (31510)—Continued	1963 <sup>1</sup>
United States, total....	61,942	East North Central.....	17,585	South.....	6,850
Northeast.....	29,898	Illinois.....	5,531	Tennessee.....	2,880
New York.....	28,275	Wisconsin.....	8,122	West.....	2,780
		West North Central.....	4,829	California.....	1,480
		Iowa.....	2,704		

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 31510—Indiana, Michigan, Minnesota, and Arkansas.



TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3151.—LEATHER GLOVES			
	Materials, containers, and supplies, total.....		(X)	34,295	(X)	23,150
311100	Finished leather.....	1,000 sq. ft....	76,890	22,192	56,223	14,752
220123	Broad-woven fabrics (cotton, wool, man-made fiber fabrics, etc.)...	1,000 lin. yds..	2,938	1,752	(NA)	2,581
225601	Knitted fabrics (cotton, wool, man-made fiber fabrics, etc.).....	..do.....	(NA)	1,221	(X)	4,065
970099	All other materials and components, parts, containers, and supplies.....		(X)	4,620		
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....		(X)	4,510	(X)	1,752
			INDUSTRY 3161.—LUGGAGE			
	Materials, containers, and supplies, total.....		(X)	93,531	(X)	84,712
221101	Broad-woven fabrics (piece goods):					
	Cotton.....	1,000 lin. yds..	(NA)	884	2,421	1,180
222101	Rayon and acetate.....	..do.....	9,704	3,541	10,037	3,461
220128	Other broad-woven fabrics.....	..do.....	(NA)	1,640	1,290	805
229503	Coated, impregnated, or laminated plastics on cloth backing, including artificial leather.....	..do.....	(NA)	11,741	13,446	11,125
307913	Unsupported plastic film and sheeting, not backed, excluding packaging materials.....	1,000 sq. yds...	(NA)	6,988	7,122	4,182
311100	Finished leather.....	1,000 sq. ft....	(NA)	3,150	20,558	6,919
342953	Trunk and luggage hardware, including locks.....		(X)	9,790	(X)	43,337
970090	Other materials, parts, containers, and supplies.....		(X)	35,277		
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....		(X)	20,520	(X)	13,703

Code	Material	Unit of measure	1963		1958		1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3171.—HANDBAGS AND PURSES				INDUSTRY 3172.—SMALL LEATHER GOODS			
	Materials, containers, and supplies, total.....		(X)	123,542	(X)	106,397	(X)	62,449	(NA)	(NA)
221101	Broad-woven fabrics (piece goods):									
	Cotton.....	1,000 lin. yds.....	2,374	1,492	1,874	1,660	(NA)	( <sup>2</sup> )	(NA)	(NA)
222101	Rayon and acetate.....	..do.....	5,467	3,438	7,686	3,408	(NA)	( <sup>2</sup> )	(NA)	(NA)
220128	Other broad-woven fabrics....	..do.....	2,602	2,966	3,357	3,981	(NA)	( <sup>2</sup> )	(NA)	(NA)
229503	Coated, impregnated, or laminated plastics on cloth backing, including artificial leather.....	..do.....	22,563	24,732	12,575	9,895	(NA)	5,044	(NA)	(NA)
307913	Unsupported plastic film and sheeting, not backed, excluding packaging materials	1,000 sq. yds/	15,219	11,469	11,445	7,449	4,909	2,515	(NA)	(NA)
311100	Finished leather.....	1,000 sq. ft.	39,990	16,910	53,428	25,559	36,880	15,844	(NA)	(NA)
970099	Other materials, parts, containers, and supplies.....		(X)	23,621	(X)	32,144	(X)	218,402	(NA)	(NA)
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....		(X)	38,914	(X)	22,301	(X)	20,644	(NA)	(NA)

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3199.—LEATHER GOODS, N.E.C.			
	Materials, containers, and supplies, total.....		(X)	29,804	(X)	24,322
311100	Finished leather.....	1,000 sq. ft....	18,731	10,458	21,652	8,368
970099	Other materials, parts, containers, and supplies.....		(X)	10,857	(X)	9,573
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....		(X)	8,489	(X)	6,381

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested, and (b) total cost of materials reported for those establishments which failed to report cost of individual materials on "standard forms."

<sup>2</sup>Data for broad-woven fabrics are included in "Other materials, parts, containers, and supplies."

TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

Item	Leather gloves (SIC 3151)	Luggage (SIC 3161)	Handbags and purses (SIC 3171)	Small leather goods (SIC 3172)	Leather goods, n.e.c. (SIC 3199)
Total cost of purchased fuels and electric energy.....\$1,000..	236	1,182	1,000	867	457
Total cost of purchased fuels.....do....	112	334	254	231	192
Bituminous coal, lignite, and anthracite:					
Quantity.....1,000 short tons..	(S)	(S)	(S)	(S)	(S)
Cost.....\$1,000..	(S)	(S)	(S)	(S)	(S)
Coke and breeze:					
Quantity.....1,000 short tons..	-	-	-	-	-
Cost.....\$1,000..	-	-	-	-	-
Fuel oil (distillate and residual):					
Quantity.....1,000 barrels of 42 gallons..	(S)	21	(S)	34	(S)
Cost.....\$1,000..	(S)	76	(S)	106	(S)
Gas (natural, manufactured, still, blast furnace, and coke oven):					
Quantity.....million cu.ft..	(S)	(S)	(S)	(S)	(S)
Cost.....\$1,000..	(S)	(S)	(S)	(S)	(S)
Other fuels.....do....	(S)	74	212	72	82
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	5	47	35	34	13
Cost.....\$1,000..	124	848	746	636	265
Generated less sold.....million kw.-hrs..	-	-	-	-	-
Aggregate horsepower of prime movers and electric motors driven by purchased energy(December 31), total.....1,000 hp..	3	25	20	15	6
Prime movers, total.....do....	-	(Z)	(Z)	1	-
Driving generators.....do....	-	(Z)	-	1	-
Not driving generators.....do....	-	(Z)	(Z)	(Z)	-
Electric motors, total.....do....	3	25	20	14	6
Driven by purchased energy.....do....	3	25	20	14	6
Driven by energy generated at establishment.....do....	-	-	-	-	-
Aggregate horsepower per 100 production workers.....	55	184	92	130	142

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

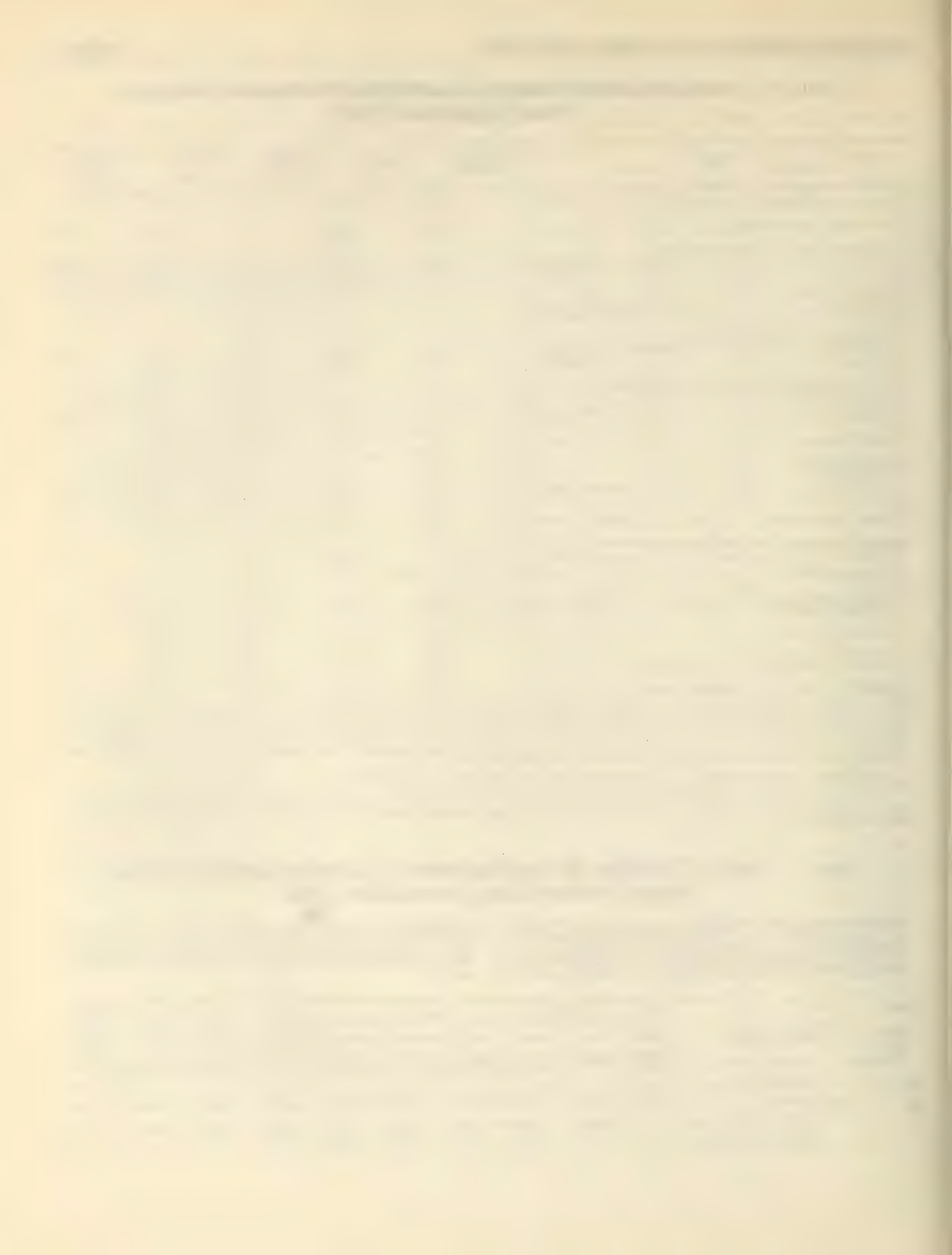
TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3151-	LEATHER GLOVES										
	Entire industry.....	166	7,718	24,439	6,899	12,244	19,481	32,194	46,694	80,640	328
	Establishments with—										
	90% or more specialization.	122	3,941	12,151	3,548	6,165	9,905	18,170	23,467	42,139	200
	75-89% specialization.....	10	360	1,193	332	607	1,007	2,046	2,345	4,348	19





## Stone, Clay, and Glass Products

- 32A Glass products
- 32B Cement and structural clay products
- 32C Pottery and related products
- 32D Concrete, plaster, and cut stone products
- 32E Abrasive, asbestos, and miscellaneous nonmetallic mineral products

This major group includes establishments engaged in manufacturing flat glass and other glass products, cement, structural clay products, pottery, concrete, and gypsum products, cut stone products, abrasive and asbestos products, etc., from materials taken principally from the earth in the form of stone, clay, and sand. When separate reports are available for mines and quarries operated by manufacturing establishments classified in this major group, the mining activities are classified in mining industries; when separate reports are not available, the mining activities are classified with the manufacturing operations and classified as manufacturing industries.



# STONE, CLAY, AND GLASS PRODUCTS: MAJOR GROUP 32

Value Added by Manufacture by State: 1963

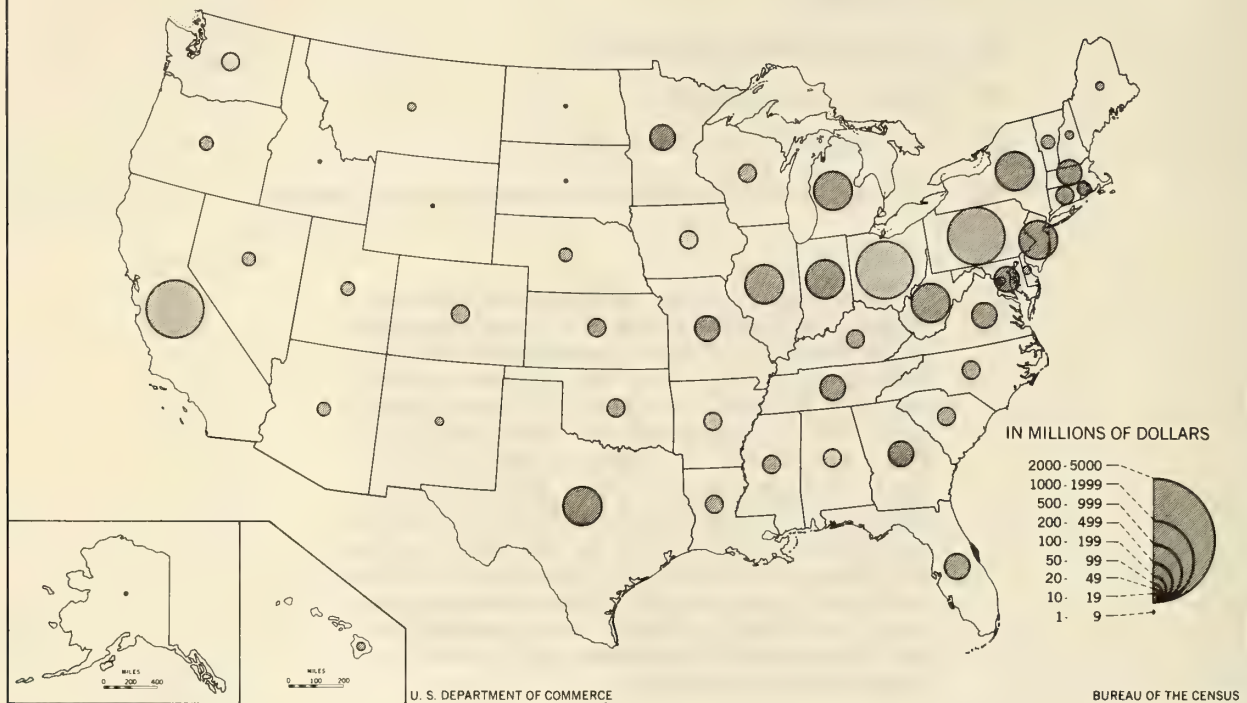


TABLE 1. General Statistics: 1963 and Earlier Years

Year and item <sup>1</sup>	Establishments		All employees <sup>2</sup>		Production workers			Value added by manufacture, adjusted <sup>3</sup>	Cost of materials <sup>4</sup>	Value of shipments <sup>4</sup>	Capital expenditures, new <sup>5</sup>
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
ALL MANUFACTURING ESTABLISHMENTS, TOTAL:											
1963 . . . . .	16 185	4 839	602 764	3 462 465	455 818	928 948	2 350 223	7 043 987	5 287 768	12 289 091	607 581
1958 . . . . .	15 305	4 637	574 790	2 754 013	446 009	884 124	1 935 028	5 533 392	(NA)	9 726 543	488 645
1954 . . . . .	(NA)	(NA)	504 436	2 023 427	412 031	827 012	1 496 029	3 866 229	(NA)	(NA)	300 647
ADMINISTRATIVE AND AUXILIARY UNITS:											
1963 . . . . .	347	184	28 905	249 970	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1958 . . . . .	258	154	22 268	167 640	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1954 . . . . .	(NA)	(NA)	12 622	85 342	(X)	(X)	(X)	(X)	(X)	(X)	(X)
OPERATING MANUFACTURING ESTABLISHMENTS:											
1963 . . . . .	15 838	4 655	573 859	3 212 495	455 818	928 948	2 350 223	7 043 987	5 287 768	12 289 091	607 581
1958 . . . . .	15 047	4 484	552 522	2 586 373	446 009	884 124	1 935 028	5 533 392	(NA)	9 726 543	488 645
1954 . . . . .	11 162	(NA)	491 814	1 938 085	412 031	827 012	1 496 029	3 866 229	(NA)	(NA)	300 647
OPERATING MANUFACTURING ESTABLISHMENTS:											
1962 . . . . .	(NA)	(NA)	573 012	3 102 469	463 152	939 383	2 280 194	6 589 135	4 973 160	11 524 053	549 100
1961 . . . . .	(NA)	(NA)	567 250	2 937 948	456 932	923 413	2 152 895	6 287 566	4 766 783	11 011 124	554 259
1960 . . . . .	(NA)	(NA)	581 390	2 950 031	474 060	959 578	2 187 224	6 369 831	(NA)	(NA)	540 891
1959 . . . . .	(NA)	(NA)	595 821	2 938 951	487 532	980 737	2 199 379	6 504 384	(NA)	(NA)	557 009
1957 . . . . .	(NA)	(NA)	525 597	2 354 451	437 099	869 338	1 802 722	4 980 460	(NA)	(NA)	655 457
1956 . . . . .	(NA)	(NA)	535 998	2 344 539	450 087	911 127	1 814 726	5 035 547	(NA)	(NA)	724 835
1955 . . . . .	(NA)	(NA)	524 729	2 177 539	442 295	899 357	1 703 041	4 637 225	(NA)	(NA)	460 865
1953 . . . . .	(NA)	(NA)	506 439	1 948 876	430 888	873 011	1 538 450	3 752 912	(NA)	(NA)	281 715
1952 . . . . .	10 435	(NA)	510 353	1 841 507	435 680	895 027	1 456 600	3 531 294	(NA)	(NA)	250 766
1951 . . . . .	10 700	(NA)	529 069	1 827 834	455 373	945 593	1 458 753	3 560 697	(NA)	(NA)	322 702
1950 . . . . .	9 707	(NA)	490 568	1 529 473	418 153	862 831	1 220 126	3 138 263	(NA)	(NA)	222 652
1949 . . . . .	(NA)	(NA)	453 192	1 323 196	387 496	778 449	1 044 203	2 450 931	(NA)	(NA)	190 986
1947 . . . . .	11 643	(NA)	461 037	1 206 903	404 930	838 320	991 966	2 298 521	(NA)	(NA)	285 066
1939 . . . . .	6 678	(NA)	313 467	410 365	267 094	(NA)	307 248	856 323	(NA)	(NA)	(NA)
1937 . . . . .	6 114	(NA)	330 709	419 452	297 404	(NA)	345 524	860 063	(NA)	(NA)	(NA)
1935 . . . . .	5 846	(NA)	265 065	292 773	234 781	(NA)	227 777	599 530	(NA)	(NA)	(NA)
1933 . . . . .	4 657	(NA)	(NA)	(NA)	175 145	(NA)	144 078	404 148	(NA)	(NA)	(NA)
1931 . . . . .	6 549	(NA)	(NA)	(NA)	233 744	(NA)	249 551	615 728	(NA)	(NA)	(NA)
1929 . . . . .	8 688	(NA)	371 950	548 216	330 708	(NA)	435 865	1 053 908	(NA)	(NA)	(NA)
1927 . . . . .	8 574	(NA)	389 733	574 850	348 142	(NA)	463 015	1 022 786	(NA)	(NA)	(NA)
1925 . . . . .	8 391	(NA)	391 797	565 247	351 136	(NA)	466 357	1 042 452	(NA)	(NA)	(NA)
1923 . . . . .	8 209	(NA)	388 603	543 474	348 578	(NA)	450 660	990 128	(NA)	(NA)	(NA)
1921 . . . . .	8 227	(NA)	282 113	377 080	251 157	(NA)	305 449	605 136	(NA)	(NA)	(NA)
1919 . . . . .	12 326	(NA)	330 605	396 901	294 590	(NA)	323 718	680 214	(NA)	(NA)	(NA)
1914 . . . . .	14 693	(NA)	404 738	248 920	335 325	(NA)	206 161	379 247	(NA)	(NA)	(NA)
1909 . . . . .	16 207	(NA)	371 734	223 715	343 864	(NA)	189 992	352 306	(NA)	(NA)	(NA)
1904 . . . . .	10 744	(NA)	304 725	170 693	285 740	(NA)	148 846	270 915	(NA)	(NA)	(NA)
1899 . . . . .	11 471	(NA)	242 873	115 553	230 013	(NA)	102 351	185 273	(NA)	(NA)	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>Figures for establishments primarily engaged in producing ready-mixed concrete are excluded for 1954, 1947, and 1939. In 1958, the value added in ready-mixed concrete establishments represented 12 percent of the total value added for the stone, clay, and glass products, and in 1937, less than 1 percent. As indicated in the introductory text, certain quarries, operated as parts of manufacturing establishments, are included in the stone, clay and glass products industries but separate figures for such mining activity were also obtained in the last three censuses. The value added at quarries operated in conjunction with these manufacturing establishments (including value added in producing mineral products consumed in the same establishment) was \$321,240 thousand in 1963; \$360,992 thousand in 1958; and \$193,636 thousand in 1954. Further detail on such mining operations are included in the Census of Mineral Industries reports.

<sup>2</sup>The figures for 1939 through 1954 include data for employees of manufacturing establishments who were engaged in distribution and construction work. The extent to which data for such employees are included in the figures for earlier years is not known.

<sup>3</sup>For the period 1954 to 1963, figures represent adjusted value added by manufacture and for earlier years, unadjusted value added. Adjusted value added is equal to value of shipments (including resales of finished products) less cost of finished products,

materials, supplies, fuel, electric energy and contract work, plus the net change in the value of finished products and work-in-process inventories between the beginning and end of the year, with-out adjustment for price changes. Unadjusted value added is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year.

<sup>4</sup>The total value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry classification. For more complete explanation, see Introduction.

<sup>5</sup>The figures for 1958 to 1963 include expenditures for plants under construction and not yet in operation.

<sup>6</sup>Similar data are shown for the years 1949 to 1963 in the annual survey of manufactures volumes. Data for these establishments are not available for the years 1955 to 1957, 1959-1962 or prior to 1949.

<sup>7</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, consequently, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
									(number)	(number)	(number)	(\$1,000)
32	STONE, CLAY, & GLASS PRODUCTS, TOTAL	15 838	4 655	573 859	3 212 495	455 818	928 948	2 350 223	7 043 987	607 581	552 522	5 533 392
	NORTHEAST . . . . .	3 515	1 106	155 946	913 655	124 176	250 077	667 631	1 792 348	127 228	159 918	1 508 226
	NEW ENGLAND . . . . .	798	226	25 374	150 284	19 122	39 366	100 333	300 755	19 735	25 649	226 180
	MAINE . . . . .	58	20	1 192	5 651	926	1 937	3 931	11 690	890	1 049	10 083
	NEW HAMPSHIRE . . . . .	64	17	1 758	8 714	1 385	2 878	6 189	16 784	1 427	1 451	11 197
	VERMONT . . . . .	120	33	3 068	15 055	2 617	5 529	12 359	25 323	1 608	4 200	26 623
	MASSACHUSETTS . . . . .	308	84	10 773	69 868	7 469	15 096	41 479	142 092	8 479	11 028	107 065
	RHODE ISLAND . . . . .	52	12	1 907	10 734	1 522	3 156	7 871	23 152	1 534	1 919	17 162
	CONNECTICUT . . . . .	196	60	6 676	40 262	5 203	10 770	28 504	81 714	5 797	6 002	54 050
	MIDDLE ATLANTIC . . . . .	2 717	880	130 572	763 371	105 054	210 711	567 298	1 491 593	107 493	134 269	1 282 046
	NEW YORK . . . . .	1 052	267	38 806	240 792	29 866	60 641	169 686	475 186	31 642	38 992	384 423
	NEW JERSEY . . . . .	573	224	34 458	198 330	27 799	56 407	147 190	390 433	32 926	32 550	304 222
	PENNSYLVANIA . . . . .	1 092	389	57 308	324 276	47 389	93 663	250 422	625 974	42 925	62 727	593 401
	NORTH CENTRAL . . . . .	5 141	1 361	190 032	1 101 044	151 306	306 562	808 503	2 458 202	165 258	189 900	2 027 042
	EAST NORTH CENTRAL . . . . .	3 662	1 054	149 960	866 585	121 139	244 096	646 715	1 902 108	126 848	152 716	1 571 404
	OHIO . . . . .	1 077	398	61 629	353 138	50 330	99 215	267 267	740 043	48 185	64 434	623 881
	INDIANA . . . . .	555	162	25 182	135 621	20 865	42 122	103 865	277 967	18 938	26 811	256 101
	ILLINOIS . . . . .	872	259	37 652	221 548	30 451	62 671	167 316	488 863	30 177	37 724	418 759
	MICHIGAN . . . . .	732	150	17 838	111 829	13 758	28 346	77 945	308 198	22 898	17 425	207 976
	WISCONSIN . . . . .	426	85	7 659	44 449	5 735	11 742	30 322	87 037	6 650	6 322	64 687
	WEST NORTH CENTRAL . . . . .	1 479	307	40 072	234 459	30 167	62 466	161 788	556 094	38 410	37 184	455 638
	MINNESOTA . . . . .	362	72	10 961	70 314	7 096	14 572	39 035	158 740	7 166	8 298	104 583
	IOWA . . . . .	310	59	5 901	33 383	4 699	10 162	24 809	96 224	8 697	5 888	83 240
	MISSOURI . . . . .	382	91	13 119	75 756	10 479	20 919	56 946	170 390	9 778	14 113	160 219
	NORTH DAKOTA . . . . .	42	6	462	2 191	342	706	1 430	4 545	446	383	3 507
	SOUTH DAKOTA . . . . .	68	11	762	3 738	598	1 276	2 604	7 587	888	601	4 769
	NEBRASKA . . . . .	122	22	2 228	11 027	1 746	3 694	7 965	31 225	3 478	1 813	22 576
	KANSAS . . . . .	193	46	6 639	38 050	5 207	11 137	28 999	87 383	7 957	6 088	76 744
	SOUTH . . . . .	4 431	1 468	157 129	759 111	127 088	264 252	564 955	1 802 960	215 297	140 599	1 282 984
	SOUTH ATLANTIC . . . . .	2 148	767	83 190	399 165	68 085	140 248	301 283	893 833	105 698	74 513	614 085
	DELAWARE . . . . .	39	13	822	3 992	641	1 358	2 981	10 706	965	775	7 049
	MARYLAND . . . . .	205	82	9 604	55 837	7 757	16 477	41 750	127 212	21 016	8 486	94 268
	DISTRICT OF COLUMBIA . . . . .	15	11	846	5 132	688	1 445	3 512	11 402	1 359	676	7 037
	VIRGINIA . . . . .	271	111	9 608	43 953	7 987	16 771	32 782	107 463	10 243	7 786	75 839
	WEST VIRGINIA . . . . .	177	88	20 342	108 647	17 933	35 020	90 376	219 148	11 001	21 590	156 607
	NORTH CAROLINA . . . . .	330	126	10 542	43 654	8 538	17 865	31 179	90 200	23 298	7 897	50 504
	SOUTH CAROLINA . . . . .	154	51	6 777	31 036	5 656	11 962	23 889	67 757	8 566	5 306	44 748
	GEORGIA . . . . .	356	122	12 068	50 983	9 857	20 076	37 923	117 370	17 895	9 575	72 137
	FLORIDA . . . . .	601	163	12 581	55 931	9 028	19 274	36 891	142 575	11 355	12 422	105 896
	EAST SOUTH CENTRAL . . . . .	944	285	32 010	156 017	25 849	53 306	115 334	389 928	34 688	28 128	264 154
	KENTUCKY . . . . .	233	51	5 920	29 857	4 691	9 554	21 345	65 168	7 732	5 443	47 081
	TENNESSEE . . . . .	295	92	13 873	71 698	11 266	23 442	53 407	177 211	17 277	10 423	96 517
	ALABAMA . . . . .	266	88	7 529	34 651	6 065	12 296	25 833	94 245	6 135	8 250	84 371
	MISSISSIPPI . . . . .	150	54	4 688	19 811	3 827	8 014	14 749	53 304	3 544	4 012	36 185
	WEST SOUTH CENTRAL . . . . .	1 339	416	41 929	203 929	33 154	70 698	148 338	519 199	74 911	37 958	404 745
	ARKANSAS . . . . .	142	37	3 537	15 937	2 889	5 831	12 158	36 699	5 216	3 377	31 238
	LOUISIANA . . . . .	202	60	6 510	35 106	5 188	10 853	26 407	87 440	4 645	6 605	70 532
	OKLAHOMA . . . . .	200	46	6 886	36 206	5 548	11 402	27 153	89 836	11 854	6 748	66 649
	TEXAS . . . . .	795	273	24 996	116 680	19 529	42 612	82 620	305 224	53 196	21 228	236 326
	WEST . . . . .	2 752	720	70 671	438 127	53 180	107 904	308 313	997 201	100 087	62 344	716 307
	MOUNTAIN . . . . .	734	179	15 642	90 391	11 659	23 811	63 358	216 219	30 062	12 983	146 859
	MONTANA . . . . .	68	10	858	4 764	654	1 247	3 442	11 935	12 392	(D)	(D)
	IDAHO . . . . .	61	12	775	4 207	592	1 182	2 913	8 358	1 331	(D)	(D)
	WYOMING . . . . .	45	7	632	3 716	537	1 146	3 040	8 885	514	545	5 181
	COLORADO . . . . .	196	44	4 856	28 176	3 519	7 305	18 714	61 530	4 421	4 079	43 978
	NEW MEXICO . . . . .	76	18	1 353	7 058	982	2 048	4 710	19 264	1 866	1 066	8 064
	ARIZONA . . . . .	143	33	3 165	17 745	2 372	4 646	12 623	44 247	4 598	2 096	25 013
	UTAH . . . . .	102	36	2 663	15 001	1 995	4 059	10 672	34 970	2 396	2 604	32 787
	NEVADA . . . . .	43	19	1 340	9 724	1 008	2 178	7 244	27 030	2 544	946	14 277
	PACIFIC . . . . .	2 018	541	55 029	347 736	41 521	84 093	244 955	780 982	70 025	49 376	569 448
	WASHINGTON . . . . .	260	69	5 357	34 229	4 098	8 077	25 268	70 413	6 009	4 910	53 228
	OREGON . . . . .	201	27	2 955	18 202	2 333	4 679	13 796	38 537	6 344	2 701	26 331
	CALIFORNIA . . . . .	1 511	430	45 637	288 529	34 297	69 839	201 644	654 022	56 687	41 281	484 282
	ALASKA . . . . .	16	3	172	1 441	118	225	880	3 054	322	174	2 275
	HAWAII . . . . .	30	12	908	5 335	675	1 273	3 367	14 956	663	295	3 332
321	FLAT GLASS, TOTAL <sup>1</sup> . . . . .	31	30	22 815	172 214	19 440	39 704	143 752	364 466	28 244	21 179	263 151

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963								1958		
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
		(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(number)	(\$1,000)
322	PRESSED AND BLOWN GLASSWARE, TOTAL	220	200	97 986	535 248	86 533	171 910	446 612	1 101 820	76 469	90 295	844 811
	MIDDLE ATLANTIC	61	50	31 117	169 420	27 531	53 834	141 450	317 468	25 464	31 019	268 623
	NEW YORK	15	10	6 497	39 418	5 745	11 965	32 994	74 291	4 592	7 665	54 568
	NEW JERSEY	16	11	11 237	60 524	9 882	19 168	49 940	114 429	13 958	10 406	94 469
	PENNSYLVANIA	30	29	13 383	69 478	11 904	22 701	58 516	128 748	6 914	14 698	119 586
	EAST NORTH CENTRAL	50	49	29 739	162 673	26 199	51 567	136 591	347 517	14 049	28 487	281 715
	OHIO	21	21	11 694	64 068	10 008	18 802	52 286	143 986	4 514	11 850	111 613
	INDIANA	13	13	7 687	40 389	6 829	13 609	33 851	71 461	5 309	7 502	67 795
	SOUTH ATLANTIC	56	50	19 256	99 441	17 150	34 509	83 139	220 849	14 920	15 907	134 872
	MARYLAND	3	3	1 824	10 385	1 542	3 420	8 335	15 252	786	1 838	13 629
	WEST VIRGINIA	40	36	11 159	57 381	10 066	19 688	48 545	131 249	4 953	11 169	87 101
	NORTH CAROLINA	4	3	1 543	6 724	1 390	2 820	5 620	17 809	1 839	2	31
	PACIFIC	22	22	8 117	52 367	7 075	14 493	43 827	102 305	6 083	6 412	76 611
	OKLAHOMA	8	7	2 363	11 459	2 061	4 096	8 922	26 801	1 249	2 320	21 472
	TEXAS	4	3	1 395	8 155	1 241	2 668	6 975	18 919	1 173	1 322	17 476
	ALL OTHER DIVISIONS	31	29	9 757	51 347	8 578	17 507	41 605	113 681	7 692	8 470	82 990
323	PRODUCTS OF PURCHASED GLASS, TOTAL <sup>1</sup>	1 044	249	26 158	138 275	21 669	43 384	103 890	309 734	13 223	24 024	242 657
324	CEMENT, HYDRAULIC, TOTAL <sup>1</sup>	188	179	34 863	227 385	28 719	57 579	173 891	785 681	120 843	41 127	724 771
325	STRUCTURAL CLAY PRODUCTS, TOTAL	916	681	65 034	320 922	54 840	111 520	244 766	553 809	42 192	70 305	490 448
	NORTHEAST	167	125	10 905	59 424	9 288	18 741	47 071	101 078	6 298	12 930	96 425
	NEW HAMPSHIRE	4	3	136	574	121	245	493	733	34	(D)	(D)
	PENNSYLVANIA	99	82	7 289	40 361	6 185	12 355	32 060	71 873	4 107	8 521	65 997
	NORTH CENTRAL	307	231	23 915	126 630	20 054	39 915	96 290	204 178	12 108	27 594	197 508
	EAST NORTH CENTRAL	238	175	17 418	90 952	14 837	29 162	70 065	139 235	6 799	21 590	144 212
	OHIO	139	110	12 118	63 025	10 329	19 823	47 916	98 513	4 408	14 909	99 376
	INDIANA	40	29	2 629	13 433	2 249	4 726	11 002	18 410	1 346	3 209	18 653
	ILLINOIS	40	32	2 200	11 640	1 855	3 709	8 981	17 934	840	2 803	21 388
	WEST NORTH CENTRAL	69	56	6 497	35 678	5 217	10 753	26 225	64 943	5 309	6 004	53 296
	MINNESOTA	5	3	235	1 115	200	397	899	1 684	225	247	1 760
	MISSOURI	25	20	4 052	23 542	3 198	6 386	17 094	44 557	2 859	3 551	35 277
	NEBRASKA	4	3	175	770	148	327	571	1 392	104	123	584
	SOUTH	302	244	22 711	93 107	19 507	40 768	71 223	170 676	18 333	21 885	129 161
	SOUTH ATLANTIC	124	100	10 418	43 749	8 883	18 636	32 981	83 455	6 670	9 295	55 327
	MARYLAND	14	11	774	3 864	673	1 396	2 984	6 684	358	778	5 977
	SOUTH CAROLINA	16	14	1 296	4 842	1 132	2 278	3 754	7 665	1 241	1 022	4 225
	FLORIDA	15	6	834	3 251	705	1 510	2 399	8 789	547	407	2 881
	EAST SOUTH CENTRAL	77	64	5 359	23 183	4 680	9 641	18 626	46 502	7 626	5 747	35 959
	KENTUCKY	19	16	1 374	6 802	1 220	2 491	5 651	12 299	1 478	1 449	9 603
	TENNESSEE	12	10	839	3 562	749	1 530	2 894	7 848	4 041	(D)	(D)
	ALABAMA	24	19	1 703	7 392	1 511	3 078	6 156	16 037	922	(D)	(D)
	MISSISSIPPI	22	19	1 443	5 427	1 200	2 542	3 925	10 318	1 185	1 051	6 951
	WEST SOUTH CENTRAL	101	80	6 934	26 175	5 944	12 491	19 616	40 719	4 037	6 843	37 875
	LOUISIANA	11	7	371	1 263	335	691	1 058	1 436	182	(D)	(D)
	OKLAHOMA	12	10	425	1 523	368	750	1 183	1 837	525	(D)	(D)
	WEST	140	81	7 503	41 761	5 991	12 096	30 182	77 877	5 453	7 896	67 354
	MOUNTAIN	39	19	1 817	9 952	1 434	2 825	6 878	13 664	1 356	2 319	15 389
	COLORADO	11	8	1 000	5 520	772	1 502	3 579	7 635	628	1 271	9 071
	ARIZONA	12	3	194	945	157	306	724	1 355	93	219	1 193
	UTAH	8	4	413	2 417	333	660	1 793	3 252	274	(D)	(D)
	PACIFIC	101	62	5 686	31 809	4 557	9 271	23 304	64 213	4 097	5 577	51 965
	OREGON	15	2	145	788	118	227	610	1 090	82	214	1 247
	CALIFORNIA	76	53	5 245	29 560	4 195	8 538	21 590	59 706	3 806	4 955	47 492
326	POTTERY AND RELATED PRODUCTS, TOTAL	638	229	42 198	212 869	35 342	68 492	163 702	337 160	11 169	44 000	283 009
	NORTHEAST AND NORTH CENTRAL	320	152	30 035	153 336	24 983	48 393	117 563	243 704	6 726	30 227	201 287
	CONNECTICUT	10	4	657	3 614	549	1 159	2 823	6 342	(D)	427	3 122
	NEW JERSEY	51	31	4 284	23 260	3 466	6 711	17 401	39 012	959	4 510	33 229
	PENNSYLVANIA	36	21	5 060	26 300	4 242	8 399	20 476	42 545	1 118	4 810	31 344
	OHIO	77	46	8 698	41 023	7 373	13 974	31 848	66 757	1 697	9 287	56 041
	INDIANA	10	5	726	4 433	597	1 198	3 409	7 742	97	874	7 629
	ILLINOIS	27	16	3 170	15 222	2 694	5 364	12 060	23 883	754	3 141	20 317
	WISCONSIN	9	4	2 024	11 248	1 523	2 955	8 223	14 248	463	(D)	(D)
	MISSOURI	8	3	118	486	107	219	381	928	63	(D)	(D)
	SOUTH	117	37	7 015	33 679	6 061	11 691	25 923	51 154	2 772	8 401	44 167
	SOUTH ATLANTIC	59	16	3 821	18 179	3 362	6 229	14 101	25 519	999	5 388	23 804
	WEST VIRGINIA	15	9	2 727	11 806	2 489	4 488	9 718	14 869	197	4 172	14 550
	GEORGIA	10	2	148	620	126	247	480	532	43	205	883

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
		(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(number)	(\$1,000)
326	POTTERY AND RELATED PRODUCTS—CONT.											
	EAST SOUTH CENTRAL . . . . .	30	11	2 052	9 508	1 740	3 544	7 128	14 619	1 383	1 991	11 278
	TENNESSEE . . . . .	9	5	1 548	7 767	1 271	2 648	5 624	11 983	799	1 509	8 718
	WEST SOUTH CENTRAL . . . . .	28	10	1 142	5 992	959	1 918	4 694	11 016	390	1 022	9 085
	WEST . . . . .	201	40	5 148	25 854	4 298	8 438	20 196	42 302	1 671	5 372	37 555
	CALIFORNIA . . . . .	176	38	4 042	19 176	3 517	6 623	15 505	32 091	1 052	4 738	33 710
327	CONCRETE AND PLASTER PRODUCTS, TOTAL	10 160	2 244	165 848	906 026	118 505	251 697	591 622	2 122 283	210 634	149 947	1 553 639
	NORTHEAST . . . . .	1 717	402	29 799	181 367	21 294	45 500	119 313	401 796	42 994	28 878	312 508
	NEW ENGLAND . . . . .	417	91	6 677	40 844	4 807	10 470	26 137	95 975	9 652	5 868	65 405
	MAINE . . . . .	35	12	582	2 650	405	897	1 629	5 538	662	465	4 226
	NEW HAMPSHIRE . . . . .	41	5	537	2 929	371	843	1 872	6 479	772	405	3 922
	MASSACHUSETTS . . . . .	170	37	2 933	18 639	2 099	4 641	12 075	45 231	4 254	2 605	33 592
	CONNECTICUT . . . . .	122	27	2 066	13 516	1 547	3 225	8 598	32 306	3 120	1 771	18 127
	MIDDLE ATLANTIC . . . . .	1 300	311	23 122	140 523	16 487	35 030	93 176	305 821	33 342	23 010	247 103
	PENNSYLVANIA . . . . .	568	121	9 005	47 029	6 729	14 025	32 524	99 338	12 365	8 810	85 136
	NORTH CENTRAL . . . . .	3 478	575	45 855	267 639	32 635	69 260	172 056	634 103	56 144	45 703	510 051
	EAST NORTH CENTRAL . . . . .	2 321	404	31 082	188 675	21 589	45 685	117 733	443 686	39 696	31 212	348 366
	OHIO . . . . .	577	113	9 663	58 496	6 486	13 580	34 771	134 659	13 961	10 402	111 867
	ILLINOIS . . . . .	515	93	6 773	42 773	4 846	10 476	28 626	99 427	6 939	6 335	78 890
	MICHIGAN . . . . .	538	85	6 415	38 862	4 523	9 500	24 684	98 350	8 112	6 457	71 435
	WEST NORTH CENTRAL . . . . .	1 157	171	14 773	78 964	11 046	23 575	54 323	190 417	16 448	14 491	161 685
	MINNESOTA . . . . .	284	41	3 109	17 594	2 288	4 971	11 526	37 685	3 478	(D)	(D)
	IOWA . . . . .	270	36	3 474	19 126	2 652	5 837	13 583	55 866	3 887	3 216	44 521
	MISSOURI . . . . .	262	45	3 925	21 177	3 054	6 244	15 530	45 974	4 613	4 615	46 696
	NORTH DAKOTA . . . . .	37	4	359	1 796	259	533	1 148	3 818	366	313	3 149
	SOUTH DAKOTA . . . . .	60	8	575	2 750	444	926	1 856	6 125	814	(D)	(D)
	NEBRASKA . . . . .	101	15	1 493	6 899	1 130	2 444	4 754	16 410	1 445	1 085	9 769
	KANSAS . . . . .	143	22	1 838	9 622	1 219	2 620	5 926	24 539	1 845	1 762	21 854
	SOUTH . . . . .	3 168	833	58 047	255 125	42 471	92 140	167 914	637 487	66 732	49 244	448 320
	SOUTH ATLANTIC . . . . .	1 533	469	30 015	133 219	21 945	47 368	87 112	324 603	34 581	26 117	224 127
	DELAWARE . . . . .	33	11	740	3 645	575	1 222	2 718	10 133	925	541	4 895
	MARYLAND . . . . .	142	51	3 139	16 701	2 232	4 831	10 383	44 043	5 343	2 409	24 430
	DISTRICT OF COLUMBIA . . . . .	8	7	592	3 910	451	984	2 493	8 782	1 328	523	5 954
	VIRGINIA . . . . .	210	75	5 422	25 385	4 423	9 624	18 647	63 502	7 664	4 085	42 796
	WEST VIRGINIA . . . . .	70	17	1 082	4 914	797	1 636	3 338	10 053	1 040	1 237	10 693
	NORTH CAROLINA . . . . .	226	68	3 777	15 006	2 755	5 892	9 267	32 236	4 411	3 064	20 849
	SOUTH CAROLINA . . . . .	118	29	1 708	6 309	1 299	2 782	4 262	14 623	2 097	1 377	11 114
	GEORGIA . . . . .	225	67	4 385	17 678	3 278	6 937	12 015	45 197	4 603	2 989	23 692
	FLORIDA . . . . .	501	144	9 170	39 671	6 135	13 460	23 989	96 034	7 170	9 892	79 704
	EAST SOUTH CENTRAL . . . . .	673	133	10 010	40 630	7 220	15 064	25 572	101 116	10 032	8 070	66 081
	KENTUCKY . . . . .	174	21	1 913	8 501	1 279	2 612	4 855	19 389	2 006	1 477	11 416
	WEST SOUTH CENTRAL . . . . .	962	231	18 022	81 276	13 306	29 708	55 230	211 768	22 119	15 057	158 112
	ARKANSAS . . . . .	107	18	1 205	4 583	955	2 038	3 425	12 271	2 485	1 088	9 150
	LOUISIANA . . . . .	160	37	2 816	12 696	2 104	4 539	8 624	33 155	2 872	2 772	28 618
	OKLAHOMA . . . . .	149	20	2 139	10 401	1 527	3 383	7 105	27 412	3 225	1 920	19 830
	TEXAS . . . . .	546	156	11 862	53 596	8 720	19 748	36 076	138 930	13 537	9 277	100 514
	WEST . . . . .	1 798	435	32 147	201 895	22 105	44 797	131 919	452 498	44 919	26 122	282 760
	MOUNTAIN . . . . .	565	134	10 269	58 700	7 425	15 186	40 063	136 721	13 597	7 499	80 114
	MONTANA . . . . .	54	6	534	2 775	400	744	1 988	6 110	501	(D)	(D)
	IDAHO . . . . .	51	10	626	3 316	471	948	2 298	6 070	594	752	7 021
	COLORADO . . . . .	142	26	2 056	11 787	1 382	2 862	7 187	25 885	2 516	1 443	13 873
	NEW MEXICO . . . . .	64	15	1 119	5 734	809	1 700	3 819	13 353	1 586	833	6 810
	ARIZONA . . . . .	102	26	2 461	13 707	1 809	3 516	9 534	31 282	3 881	1 561	17 550
	NEVADA . . . . .	38	19	1 323	9 626	994	2 152	7 161	26 943	2 536	779	12 079
	PACIFIC . . . . .	1 233	301	21 878	143 195	14 680	29 611	91 856	315 777	31 322	18 623	202 646
	WASHINGTON . . . . .	197	51	3 653	23 744	2 698	5 297	17 078	44 268	4 755	3 025	30 344
	OREGON . . . . .	152	20	1 934	11 701	1 456	2 911	8 404	25 828	5 646	1 696	17 336
	CALIFORNIA . . . . .	855	218	15 479	102 522	9 931	20 295	63 044	232 838	20 106	13 480	149 761
	ALASKA . . . . .	16	3	172	1 441	118	225	880	3 054	322	(D)	(D)
	HAWAII . . . . .	13	9	640	3 787	477	883	2 450	9 789	493	(D)	(D)
328	CUT STONE AND STONE PRODUCTS, TOTAL <sup>1</sup>	893	211	18 340	85 745	15 259	30 896	66 657	131 465	6 693	20 348	129 038

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963								1958		
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
		(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(number)	(\$1,000)
329	NONMETALLIC MINERAL PRODUCTS, TOTAL	1 748	632	100 617	613 811	75 511	153 766	415 331	1 337 569	98 114	91 270	1 001 730
	NORTHEAST . . . . .	567	231	40 727	258 998	29 746	59 944	170 350	509 835	27 550	40 716	400 919
	NEW ENGLAND . . . . .	108	52	10 135	65 180	7 096	14 049	39 652	126 784	4 547	10 571	94 850
	MASSACHUSETTS . . . . .	69	29	6 474	44 049	4 302	8 361	24 565	87 315	3 521	6 815	62 863
	CONNECTICUT . . . . .	29	17	2 746	16 825	2 052	4 217	11 991	31 006	696	2 650	24 229
	MIDDLE ATLANTIC . . . . .	459	179	30 592	193 818	22 650	45 895	130 698	383 051	23 003	30 145	306 069
	NEW YORK . . . . .	168	54	12 249	79 457	8 599	17 239	49 689	155 160	7 200	10 963	112 124
	NEW JERSEY . . . . .	123	51	8 933	57 619	6 812	14 222	41 222	118 093	9 408	8 580	90 177
	PENNSYLVANIA . . . . .	168	74	9 410	56 742	7 239	14 434	39 787	109 798	6 395	10 602	103 768
	NORTH CENTRAL . . . . .	578	222	37 599	227 644	28 138	57 420	154 443	517 785	30 451	32 417	378 188
	EAST NORTH CENTRAL . . . . .	496	205	29 204	168 899	22 809	46 465	120 004	373 866	23 028	26 623	287 911
	OHIO . . . . .	144	65	8 892	51 783	7 041	14 405	38 109	111 260	9 197	7 438	77 058
	INDIANA . . . . .	51	26	4 762	25 708	3 974	8 067	19 863	55 430	4 221	4 626	50 278
	ILLINOIS . . . . .	167	71	11 319	67 286	8 547	17 657	46 073	150 148	7 373	10 492	117 111
	MICHIGAN . . . . .	101	35	3 240	19 149	2 456	4 858	12 498	43 655	1 767	3 053	31 261
	WISCONSIN . . . . .	33	8	991	4 973	791	1 478	3 361	13 373	470	1 014	12 203
	WEST NORTH CENTRAL . . . . .	82	17	8 395	58 745	5 329	10 955	34 439	143 919	7 423	5 794	90 277
	SOUTH . . . . .	303	110	14 112	72 619	11 617	23 737	54 681	177 504	28 669	10 971	118 761
	SOUTH ATLANTIC . . . . .	127	41	6 996	34 392	5 993	11 925	27 599	81 536	4 883	5 049	49 383
	VIRGINIA . . . . .	17	7	1 384	5 661	1 182	2 342	4 562	11 487	1 196	1 214	9 478
	WEST VIRGINIA . . . . .	13	5	602	3 669	492	1 051	2 961	9 489	397	109	1 523
	NORTH CAROLINA . . . . .	25	10	1 232	4 962	1 075	2 121	3 792	8 912	504	909	5 753
	SOUTH CAROLINA . . . . .	6	3	896	4 474	735	1 516	3 279	6 879	428	(D)	(D)
	GEORGIA . . . . .	23	8	796	3 588	681	1 241	2 755	8 209	546	304	1 775
	FLORIDA . . . . .	25	2	648	3 376	521	1 029	2 507	12 246	(D)	262	1 743
	EAST SOUTH CENTRAL . . . . .	70	31	3 100	16 521	2 467	5 059	11 531	41 584	4 877	2 487	27 565
	KENTUCKY . . . . .	11	4	811	5 266	605	1 288	3 558	10 135	2 106	958	8 902
	TENNESSEE . . . . .	24	10	784	3 669	612	1 284	2 178	7 626	1 773	(D)	(D)
	ALABAMA . . . . .	25	12	762	3 584	623	1 156	2 593	9 564	238	857	10 315
	MISSISSIPPI . . . . .	10	5	743	4 002	627	1 331	3 202	14 259	760	(D)	(D)
	WEST SOUTH CENTRAL . . . . .	106	38	4 016	21 706	3 157	6 753	15 551	54 384	18 909	3 435	41 813
	LOUISIANA . . . . .	17	9	1 130	6 460	924	1 906	5 024	17 063	730	1 329	13 483
	TEXAS . . . . .	74	26	2 534	13 497	1 949	4 257	9 267	33 586	17 888	1 789	21 808
	WEST . . . . .	299	68	8 109	54 054	5 956	12 532	35 514	135 685	11 683	7 166	103 862
	MOUNTAIN . . . . .	60	9	747	4 085	592	1 128	3 061	10 231	688	894	13 864
	UTAH . . . . .	10	3	242	1 341	202	376	1 085	3 346	87	354	7 284
	PACIFIC . . . . .	239	59	7 362	49 969	5 364	11 404	32 453	125 454	10 995	6 272	89 998
	WASHINGTON . . . . .	25	4	381	2 203	300	607	1 686	5 618	219	451	5 602
	CALIFORNIA . . . . .	200	55	6 900	47 333	5 002	10 688	30 474	118 999	10 711	5 782	84 063

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.  
<sup>1</sup>This industry group consists of a single 4-digit industry. Detailed data by State are included in the 4-digit industry tables.



TABLE 3. Detailed Statistics: 1963

Item	Stone, clay, and glass products (SIC 32)	Flat glass (SIC 321)	Pressed and blown glassware (SIC 322)	Products of purchased glass (SIC 323)	Cement, hydraulic (SIC 324)	Structural clay products (SIC 325)	Pottery and related products (SIC 326)	Concrete and plaster products (SIC 327)	Cut stone and stone products (SIC 328)	Nonmetallic mineral products (SIC 329)
ESTABLISHMENTS, TOTAL . . . . . NUMBER . .	15 838	31	220	1 044	188	916	638	10 160	893	1 748
WITH 1 TO 19 EMPLOYEES . . . . . DO . .	11 183	1	20	795	9	235	409	7 916	682	1 116
WITH 20 TO 99 EMPLOYEES . . . . . DO . .	3 481	4	23	195	30	496	127	2 024	175	407
WITH 100 EMPLOYEES OR MORE . . . . . DO . .	1 174	26	177	54	149	185	102	220	36	225
PROPRIETORS AND WORKING PARTNERS . . DO . .	7 699	-	11	562	1	188	400	5 402	558	577
ALL EMPLOYEES (AVERAGE FOR THE YEAR) . . . . . DO . .	573 859	22 815	97 986	26 158	34 863	65 034	42 198	165 848	18 340	100 617
PAYROLL (ALL EMPLOYEES), TOTAL FOR YEAR . . . . . \$1,000 . .	3 212 495	172 214	535 248	138 275	227 385	320 922	212 869	906 026	85 745	613 811
PRODUCTION WORKERS:										
AVERAGE FOR THE YEAR . . . . . NUMBER . .	455 818	19 440	86 533	21 669	28 719	54 840	35 342	118 505	15 259	75 511
MARCH . . . . . DO . .	430 299	18 591	84 484	20 818	26 649	50 474	34 984	106 039	14 363	73 897
MAY . . . . . DO . .	459 535	18 853	86 860	21 374	29 663	55 862	34 946	120 960	15 522	75 495
AUGUST . . . . . DO . .	474 345	19 659	89 524	22 087	30 510	57 605	35 189	127 123	15 866	76 782
NOVEMBER . . . . . DO . .	459 437	20 652	85 254	22 424	27 997	55 421	36 318	120 163	15 274	75 934
MAN-HOURS . . . . . \$1,000 . .	928 948	39 704	171 910	43 384	57 579	111 520	68 492	251 697	30 896	153 766
JANUARY-MARCH . . . . . DO . .	212 852	9 365	41 276	10 465	12 833	24 851	16 657	53 057	6 933	37 415
APRIL-JUNE . . . . . DO . .	237 746	9 604	43 923	10 902	15 046	28 770	17 270	65 288	8 102	38 841
JULY-SEPTEMBER . . . . . DO . .	243 139	9 939	44 653	10 872	15 315	29 664	16 847	69 469	8 048	38 332
OCTOBER-DECEMBER . . . . . DO . .	235 309	10 796	42 058	11 145	14 385	28 235	17 917	63 883	7 813	39 077
WAGES . . . . . \$1,000 . .	2 350 223	143 752	446 612	103 890	173 891	244 766	163 702	591 622	66 657	415 331
COST OF MATERIALS, ETC., TOTAL <sup>1</sup> . . DO . .	5 267 768	185 879	560 014	320 339	388 747	288 953	165 217	2 191 640	86 633	1 100 346
MATERIALS, PARTS, CONTAINERS, AND SUPPLIES CONSUMED . . . . . DO . .	4 235 746	146 029	446 482	281 018	195 819	174 000	120 579	1 860 951	70 599	940 269
COST OF REALES . . . . . DO . .	435 574	(D)	24 679	28 276	6 993	31 987	(D)	204 298	6 860	91 751
FUELS CONSUMED . . . . . DO . .	403 301	20 615	64 438	4 840	123 611	64 135	10 215	78 513	1 698	35 236
ELECTRIC ENERGY:										
PURCHASED:										
QUANTITY . . . . . MILLION KW.-HRS. .	16 296	883	2 607	276	6 520	1 081	340	1 973	227	2 389
COST . . . . . \$1,000 . .	173 185	7 087	23 362	3 709	59 533	15 355	4 532	30 807	3 409	25 391
GENERATED LESS SOLD . . . . . MILLION KW.-HRS. .	6 212	(D)	18	(D)	1 445	7	(D)	1	(D)	(D)
CONTRACT WORK . . . . . \$1,000 . .	39 962	(D)	1 053	2 499	2 791	3 469	(D)	17 071	4 067	7 699
VALUE OF SHIPMENTS (INCLUDING REALES), TOTAL <sup>1</sup> . . . . . DO . .	12 289 091	549 390	1 635 409	627 327	1 176 913	841 715	492 989	4 312 849	217 176	2 435 323
VALUE OF REALES . . . . . DO . .	564 808	12 705	27 881	31 018	8 285	41 018	28 729	279 518	9 423	126 231
VALUE ADDED BY MANUFACTURE, ADJUSTED . . . . . DO . .	7 043 987	364 466	1 101 820	309 734	785 681	553 809	337 160	2 122 283	131 465	1 337 569
MANUFACTURERS' INVENTORIES:										
BEGINNING OF YEAR, TOTAL . . . . . DO . .	1 471 029	71 489	206 119	85 208	181 942	160 753	75 097	288 802	29 779	371 840
FINISHED PRODUCTS . . . . . DO . .	774 805	21 019	137 245	40 456	72 135	110 604	36 139	170 042	11 861	175 304
WORK-IN-PROCESS . . . . . DO . .	186 245	16 854	14 982	15 868	25 167	12 376	17 426	19 543	8 010	56 019
MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO . .	509 979	33 616	53 892	28 884	84 640	37 773	21 532	99 217	9 908	140 517
END OF YEAR, TOTAL . . . . . DO . .	1 522 406	72 669	232 707	88 888	180 625	162 707	77 820	298 961	31 199	376 830
FINISHED PRODUCTS . . . . . DO . .	804 464	21 612	162 625	43 044	69 648	111 942	37 413	169 820	11 761	176 599
WORK-IN-PROCESS . . . . . DO . .	194 487	17 216	16 027	16 026	25 169	12 085	18 715	22 906	9 032	57 311
MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO . .	523 456	33 841	54 055	29 819	85 808	38 680	21 692	106 235	10 406	142 920
EXPENDITURES FOR PLANT AND EQUIPMENT, TOTAL . . . . . DO . .	641 233	28 866	77 536	14 982	121 369	43 545	13 305	229 366	7 676	104 588
NEW, TOTAL . . . . . DO . .	607 581	28 244	76 469	13 223	120 843	42 192	11 169	210 634	6 693	98 114
NEW STRUCTURES AND ADDITIONS TO PLANT . . . . . DO . .	156 428	5 106	19 728	2 932	36 192	13 233	2 057	52 079	1 378	23 723
NEW MACHINERY AND EQUIPMENT . . DO . .	451 153	23 138	56 741	10 291	84 651	28 959	9 112	158 555	5 315	74 391
USED PLANT AND EQUIPMENT . . . . . DO . .	33 656	622	1 067	1 759	526	1 353	2 136	18 736	983	6 474
SELECTED OPERATING RATIOS:										
PAYROLL/TOTAL EMPLOYMENT . . . . .	5 598	7 548	5 462	5 286	6 522	4 935	5 045	5 463	4 675	6 100
PRODUCTION WORKERS/TOTAL EMPLOYMENT . .	.79	.85	.88	.83	.82	.84	.84	.71	.83	.75
MAN-HOURS/PRODUCTION WORKERS . . . . .	2.04	2.042	1.987	2.002	2.005	2.034	1.938	2.124	2.025	2.036
PRODUCTION WORKER WAGES/MAN-HOURS . . .	2.53	3.62	2.60	2.39	3.02	2.19	2.39	2.35	2.16	2.70
COST OF MATERIALS AND PAYROLLS/TOTAL VALUE OF SHIPMENTS . . . . .	.69	.65	.67	.73	.52	.72	.75	.72	.79	.70
COST OF MATERIALS/TOTAL VALUE OF SHIPMENTS . . . . .	.43	.34	.34	.51	.33	.34	.32	.51	.40	.45
ADJUSTED VALUE ADDED/TOTAL EMPLOYMENT .	12 275	15 975	11 245	11 841	22 536	8 516	7 990	12 797	7 168	13 294
SALARIES AND WAGES/ADJUSTED VALUE ADDED	.46	.47	.49	.45	.28	.58	.63	.43	.65	.46

Standard Notes: - Represents zero.

(D) Withheld to avoid disclosing figures for individual companies.

(NA) Not available.

(X) Not applicable.

<sup>1</sup>The value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry. For a more complete explanation, see Introduction.

## GLASS PRODUCTS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3211—Flat Glass
- 3221—Glass Containers
- 3229—Pressed and Blown Glass and Glassware, N.E.C.
- 3231—Glass Products, Made of Purchased Glass

This group of industries includes establishments primarily engaged in manufacturing flat glass and glass products not specifically classified in other industries. For example, establishments primarily engaged in manufacturing the following glass products are not included in this group of industries: Complete electric light bulbs, electronic or X-ray tubes (classified in Major Group 36, Electrical Machinery and Equipment), ophthalmic goods, including prescription sun glasses and eye-protective goggles (classified in industry 3851, Ophthalmic Goods), glass fabrics (classified in industry 2221, Weaving Mills, Synthetic), glass insulation (classified in industry 3296, Mineral Wool).

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3211—FLAT GLASS

This industry comprises establishments primarily engaged in manufacturing flat glass, including plate glass, window glass, rolled glass, figured and wire glass, opalescent and obscured glass, and cathedral and skylight glass. This industry also includes establishments that produce laminated glass from glass produced in the same establishment. Establishments primarily engaged in manufacturing laminated glass from purchased flat glass are classified in industry 3231, Glass Products, Made of Purchased Glass. For a detailed list of primary products of industry 3211, refer to table 6A, product codes 3211122 to 3211498 and 3231311 to 3231698.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Flat Glass Industry in 1963 totaled \$549 million. This amount included shipments of flat and laminated glass (primary prod-



ucts), and other products (secondary products) valued at \$536 million, and miscellaneous receipts at \$13 million. Separate value of shipments data for primary and secondary products are withheld to avoid disclosing figures for individual companies.

This industry's shipments of flatglass, including laminated in 1963 represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was also 90 percent.

The production index for the primary products of the industry increased to 139 in 1963 from the 1958 level of 98. The unit value index for 1963 was 107 compared to 112 in 1958. The computation of the indexes included laminated glass made in the Flat Glass Industry (3211) and laminated glass made in the Products of Purchased Glass Industry (3231). Both indexes were computed on a basis of 1954 = 100.

Table 6 presents data for the total "shipments and interplant transfers" of flat glass. It should be noted, however, that some of the flat glass reported as "shipments and interplant transfers" does not reach the ultimate consumer as flat glass, but is instead used by establishments in industry 3231 in the production of laminated glass and other glass products. These data are shown in table 7 for industry 3231.

A quarterly survey on Business and Defense Services Administration form BDSAF-375, "Flat Glass" collects statistics on flat glass (except laminated glass—code 32113 and other flat glass—code 3211498) in the same detail that is presented in this report. These statistics are summarized and published quarterly in Current Industrial Reports Series BDSAF-375, Flat Glass.

#### 3221—GLASS CONTAINERS

This industry comprises establishments primarily engaged in manufacturing glass containers for commercial packing and bottling, and for home canning. Products of this industry may be machine-made or hand-made and include carboys, cosmetic jars, fruit jars, medicine bottles, milk bottles, vials, and beverage and beer bottles. For a more detailed list of primary products of industry 3221, refer to table 6A, product codes 3221011 to 3221062.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Glass Containers Industry in 1963 totaled \$1,004 million. This amount included shipments of glass containers (primary products), valued at \$973 million, shipments of other products (secondary products) valued at \$7 million and miscellaneous receipts at \$24 million.

This industry's shipments of glass containers in 1963 represented 99 percent of its total product shipments. The industry specialization ratio in 1958 was also 99 percent.

Shipments of glass containers by this industry in 1963 represented 99 percent of all shipments of these products (\$982 million) by all industries. In 1958 the coverage ratio was also 99 percent. Other industries shipping glass containers (primary products) consisted mainly of industry 3229, Pressed and Blown Glass, N.E.C.

The production index for the primary products of the industry increased to 141 in 1963 from the 1958 level of 114. The unit value index for 1963 was 111 compared to 117 in 1958. Both indexes were computed on a basis of 1954 = 100.

A monthly survey on Census Form M32G, "Glass Containers," collects statistics on quantity of machine-made containers in the same detail that is presented in this re-

port. These statistics are summarized and published monthly in Current Industrial Reports, Series M32G, Glass Containers.

### 3229—PRESSED AND BLOWN GLASS AND GLASSWARE, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing glass and glassware, not elsewhere classified, pressed, blown, or shaped from glass produced in the same establishment. Establishments primarily engaged in manufacturing textile type glass fibers are also included in this industry, but establishments primarily engaged in manufacturing glass wool insulation products are classified in industry 3296, Mineral Wool.

Establishments primarily engaged in the production of pressed lenses for headlights, beacons, and lanterns are also included in this industry, but establishments primarily engaged in the production of optical lenses are classified in industry 3831, Optical Instruments and Lenses. Establishments primarily engaged in manufacturing glass containers are classified in industry 3221, Glass Containers, and complete electric light bulbs in industry 3641, Electric Lamps. For a detailed list of products of industry 3229, refer to table 6A, product codes 3229111 to 3229417.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Pressed and Blown Glass, N.E.C., Industry in 1963 totaled \$631 million. This amount included shipments of pressed and blown glass, n.e.c., (primary products), valued at \$600 million, shipments of other products (secondary products) valued at \$23 million, and miscellaneous receipts at \$8 million.

This industry's shipments of pressed and blown glass, n.e.c., in 1963 represented 96 percent of its total product shipments. The industry specialization ratio in 1958 was 98 percent. Secondary products shipped by this industry in 1963 consisted mainly of glass containers and lighting fixtures.

Shipments of pressed and blown glass, n.e.c., by this industry in 1963 represented 97 percent of all shipments of these products (\$615 million) by all industries. In 1958 the coverage ratio was also 97 percent. Other industries shipping pressed and blown glass, n.e.c. (primary products) consisted mainly of industry 3221, Glass Containers, \$3 million; and industry 3296, Mineral Wool, \$7 million.

An annual survey on Census Form MA-32E, "Consumer, Scientific, Technical and Industrial Glassware" (formerly "Pressed and Blown Glassware") collects statistics in the same detail that is presented in this report. These statistics are summarized and published annually in Current Industrial Reports, Series M32E, "Consumer, Scientific, Technical and Industrial Glassware" (formerly "Pressed and Blown Glassware").

### 3231—GLASS PRODUCTS, MADE OF PURCHASED GLASS

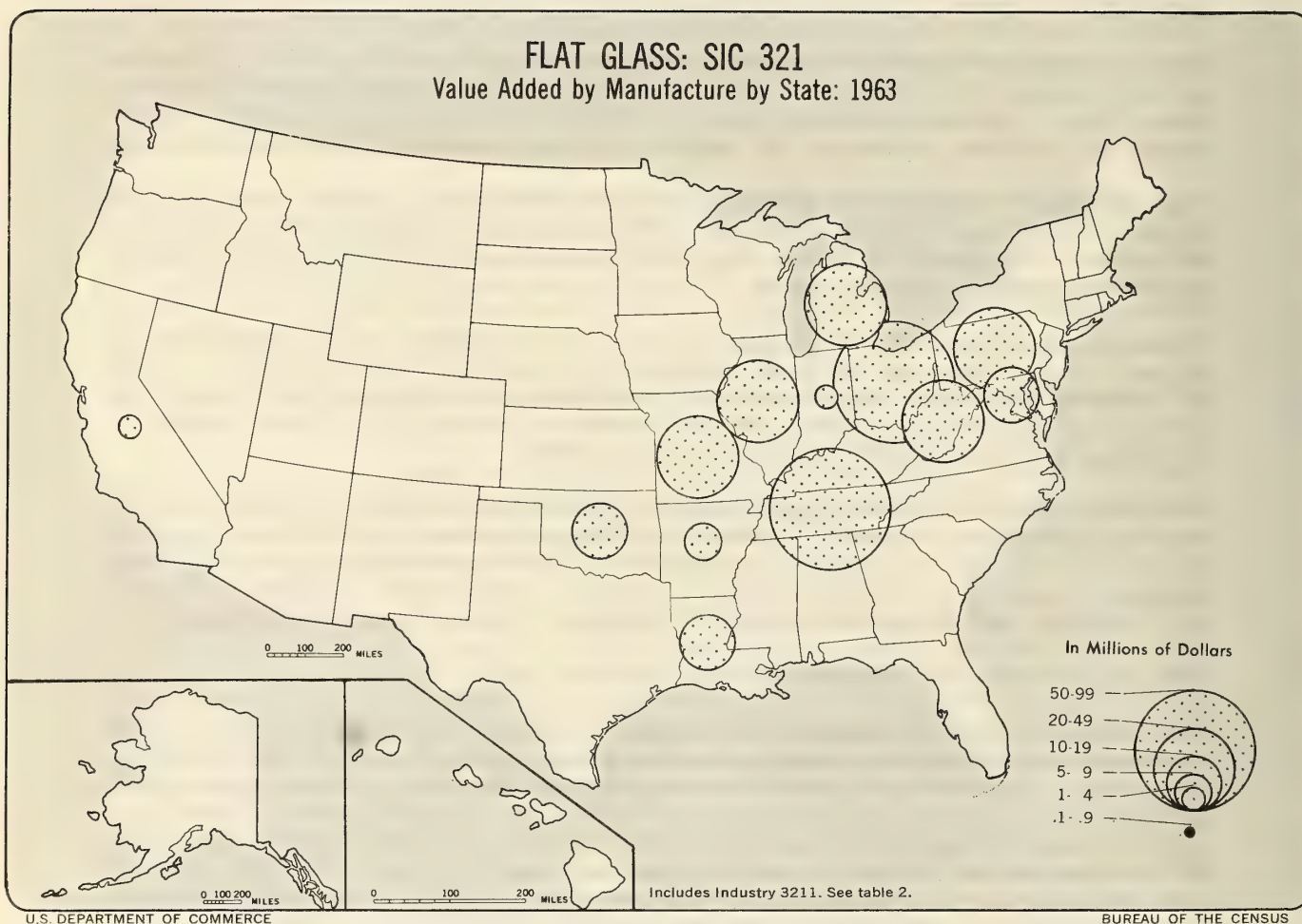
This industry comprises establishments primarily engaged in manufacturing glass products from purchased glass, including laminated glass, tempered glass, stained, leaded, ornamented, and decorated glass; mirrors; cutware; scientific-apparatus glass; glass novelties; mosaic glass; cut, beveled; and etched glass. Establishments primarily engaged in manufacturing optical lenses and ophthalmic lenses are classified in Major Group 38, Instruments and Related Products; glass insulation in industry 3296; Mineral Wool and glass fabrics in industry 2221, Weaving Mills, Synthetic. For a detailed list of products of industry 3231, refer to table 6A, product codes 3231511 to 3231698.



The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Products of Purchased Glass Industry in 1963 totaled \$627 million. This amount included shipments of primary and secondary products and miscellaneous receipts. Separate value of shipments data for primary and secondary products and miscellaneous receipts are withheld to avoid disclosing figures for individual companies.

This industry's shipments of products of purchased glass in 1963 represented over 90 percent of its total product shipments. The industry specialization ratio in 1958 was 98 percent.



# PRESSED AND BLOWN GLASSWARE: SIC 322

Value Added by Manufacture by State: 1963



# PRODUCTS OF PURCHASED GLASS: SIC 323

Value Added by Manufacture by State: 1963

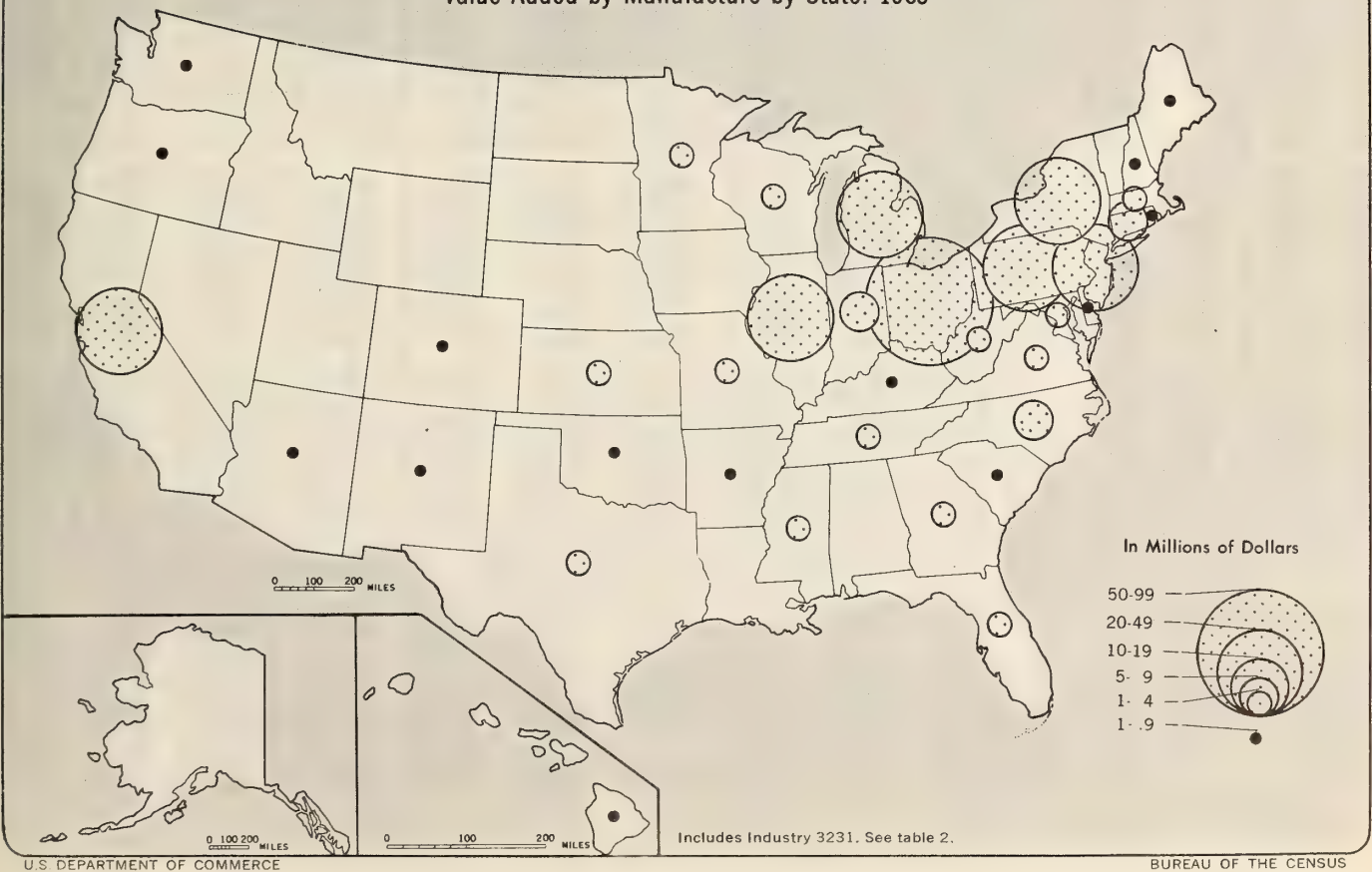




TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new  (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3211.—FLAT GLASS														
1963.....	11	31	30	22,815	172,214	19,440	39,704	143,752	364,466	185,879	549,390	28,244	290	(D)
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,366	162,556	19,110	38,833	135,951	315,189	176,159	490,681	33,982	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,159	146,221	17,938	35,493	120,681	284,585	164,731	448,483	39,013	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,471	167,626	20,010	41,478	140,203	345,197	180,492	529,944	36,132	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	27,280	180,616	23,841	46,962	155,998	400,516	174,872	557,431	18,866	(NA)	(NA)
1958.....	14	32	31	21,179	133,551	17,625	35,867	110,675	263,151	115,115	384,711	21,607	290	(D)
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	26,105	163,356	22,746	46,048	138,694	315,863	144,548	458,038	86,509	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	26,628	165,528	23,332	49,494	143,985	327,358	148,087	467,275	101,320	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	26,482	159,921	23,294	49,726	140,279	346,475	146,479	492,088	12,790	(NA)	(NA)
1954.....	16	32	30	24,559	132,509	21,389	44,344	114,966	247,175	119,576	372,689	30,964	290	(D)
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	25,819	129,769	22,779	46,217	113,711	224,583	111,591	336,174	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,206	107,870	20,435	41,966	94,521	191,080	91,321	282,401	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	26,401	114,907	23,447	49,006	101,066	211,498	104,880	316,378	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	26,286	103,996	23,685	48,954	92,208	201,555	99,539	301,094	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,329	84,081	20,409	41,112	73,504	152,284	82,847	235,131	(NA)	(NA)	(NA)
1947.....	(NA)	32	(NA)	25,268	77,940	22,563	46,966	67,861	158,746	64,736	223,715	(NA)	(NA)	(NA)
1939.....	(NA)	37	(NA)	18,638	28,161	16,739	(NA)	24,009	68,540	33,849	102,389	(NA)	(NA)	(NA)
1937 <sup>3</sup> .....	(NA)	39	(NA)	(NA)	(NA)	20,583	(NA)	30,598	82,903	44,450	127,353	(NA)	(NA)	(NA)
INDUSTRY 3221.—GLASS CONTAINERS														
1963.....	40	113	105	59,987	327,956	53,476	107,055	278,691	629,608	392,541	1,004,464	53,805	99	99
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	60,033	326,733	53,348	106,933	275,994	612,953	375,507	987,620	53,630	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	60,152	314,480	53,653	106,566	265,058	601,248	366,673	967,405	68,930	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	58,531	298,251	52,027	104,309	251,420	576,529	375,239	939,177	34,777	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	56,240	271,948	50,109	98,796	228,872	561,292	354,610	915,611	32,898	(NA)	(NA)
1958.....	42	100	92	54,937	259,893	48,635	97,622	218,358	532,469	333,554	862,117	31,164	99	99
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	54,255	238,544	48,449	97,428	203,580	502,360	315,446	797,141	45,370	98	100
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	51,574	230,590	46,256	94,201	195,817	470,411	294,503	758,092	34,423	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	51,138	212,140	45,770	92,138	179,904	422,696	276,073	693,703	23,865	(NA)	(NA)
1954.....	38	85	83	49,410	195,944	44,076	87,672	166,107	384,647	267,222	646,104	26,542	98	99
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	50,605	189,514	45,306	89,857	163,281	358,465	255,164	613,629	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	47,569	168,976	42,938	86,674	143,767	325,674	252,841	564,494	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	48,159	162,498	43,541	87,478	138,828	308,093	254,852	548,918	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	42,279	131,889	38,235	77,546	113,104	264,811	205,118	455,902	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	40,303	119,977	36,242	74,137	101,592	223,746	185,362	395,081	(NA)	(NA)	(NA)
1947.....	41	87	(NA)	47,132	126,503	41,943	87,530	107,101	252,069	191,961	422,614	(NA)	(D)	(D)
1939.....	(NA)	77	(NA)	29,357	43,023	25,753	(NA)	34,181	98,378	59,894	158,272	(NA)	(NA)	(NA)
1937 <sup>3</sup> .....	(NA)	80	(NA)	(NA)	(NA)	28,422	(NA)	37,288	93,581	69,136	162,717	(NA)	(NA)	(NA)
INDUSTRY 3229.—PRESSED AND BLOWN GLASS, N.E.C.														
1963 <sup>2</sup> .....	75	107	95	37,999	207,292	33,057	64,855	167,921	472,212	167,473	630,945	22,664	96	97
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	38,137	199,651	33,117	64,718	161,151	448,081	174,544	619,471	24,420	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	37,443	190,388	32,380	62,730	153,794	425,338	163,938	584,751	27,554	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	37,078	181,817	34,252	67,545	162,064	408,843	173,282	568,917	41,816	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	37,972	184,001	33,361	65,771	152,257	398,648	151,789	547,473	(33,827)	(NA)	(NA)
1958.....	111	140	98	35,358	161,296	30,473	58,974	131,851	312,342	128,892	445,361	19,387	98	97
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	46,308	204,087	37,867	74,076	157,333	356,737	141,103	488,886	23,566	98	97
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	45,006	188,767	37,677	71,496	144,266	345,765	134,936	476,446	26,458	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	43,337	174,339	36,304	70,450	134,877	318,630	130,145	444,775	17,493	(NA)	(NA)
1954.....	(NA)	( <sup>4</sup> )	( <sup>4</sup> )	41,924	158,623	35,006	66,673	121,776	294,192	117,757	416,021	10,875	98	96
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	39,703	151,985	34,510	66,594	118,242	254,394	97,793	352,187	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	39,391	133,664	33,436	64,667	104,779	230,107	84,658	314,763	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	42,963	137,545	37,009	72,669	109,352	227,374	91,223	318,595	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	41,650	122,065	36,238	69,536	97,611	239,041	81,181	320,220	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	38,063	105,964	32,511	62,383	82,845	185,850	73,757	259,605	(NA)	(NA)	(NA)
1947.....	107	126	(NA)	42,170	103,784	37,474	75,249	86,853	169,449	69,863	234,795	(NA)	96	91
1939.....	(NA)	115	(NA)	31,320	38,975	27,330	(NA)	30,115	70,284	27,033	97,317	(NA)	(NA)	(NA)
1937 <sup>3</sup> .....	(NA)	113	(NA)	(NA)	(NA)	30,046	(NA)	33,701	70,521	27,119	97,649	(NA)	(NA)	(NA)
INDUSTRIES 3211, 3221, 3229.—TOTALS FOR FLAT GLASS, GLASS CONTAINERS, AND PRESSED AND BLOWN GLASS, N.E.C.														
1963.....	(NA)	251	230	120,801	707,462	105,923	211,614	590,364	1,466,286	745,893	2,184,759	102,923	(NA)	(NA)
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	120,536	688,940	105,575	210,484	573,096	1,376,223	726,210	2,097,772	112,032	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	118,754	651,089	103,971	204,789	539,533	1,311,171	695,342	2,000,639	135,497	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	119,808	647,694	106,289	213,332	553,687	1,330,569	729,013	2,038,038	112,725	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	121,492	636,565	107,311	211,529	537,127	1,360,456	681,271	2,020,515	85,591	(NA)	(NA)
1958.....	(NA)	272	221	113,224	564,858	96,733	192,463	460,884	1,107,962	577,561	1,692,189	54,475	(NA)	(NA)
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	126,668	605,697	109,062	217,552	499,607	1,174,960	601,097	1,744,065	155,445	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	123,208	584,885	107,265	215,191	484,068	1,143,534	577,526	1,701,813	162,201	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	120,957	546,400	105,368	211,314	455,060	1,087,801	522,697	1,630,566	54,148	(NA)	(NA)
1954.....	(NA)	(NA)	(NA)	115,893	487,076	100,471	198,689	402,849	926,014	504,555	1,434,814	68,381	(NA)	(NA)

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
	INDUSTRIES 3211, 3221, 3229.—TOTALS FOR FLAT GLASS, GLASS CONTAINERS, AND PRESSED AND BLOWN GLASS, N.E.C.—Continued													
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	116,127	471,268	102,595	202,668	395,234	837,442	464,548	1,301,990	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	110,166	410,510	96,809	193,307	343,067	746,861	428,820	1,161,658	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	117,523	414,950	103,997	209,153	349,246	746,965	450,955	1,183,891	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	110,215	357,950	98,158	196,036	302,923	705,407	385,838	1,077,216	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	101,695	310,022	89,162	177,632	257,941	561,880	341,966	889,817	(NA)	(NA)	(NA)
1947.....	(NA)	245	(NA)	114,570	308,227	101,980	209,745	261,815	580,264	326,560	881,124	(NA)	(NA)	(NA)
1939.....	(NA)	229	(NA)	79,315	110,159	69,822	(NA)	88,305	237,202	120,776	357,978	(NA)	(NA)	(NA)
1937 <sup>3</sup> .....	(NA)	232	(NA)	87,007	119,391	79,051	(NA)	101,587	247,005	140,705	387,710	(NA)	(NA)	(NA)
1935.....	(NA)	213	(NA)	73,350	85,828	67,138	(NA)	71,443	173,884	110,041	283,925	(NA)	(NA)	(NA)
1933.....	(NA)	213	(NA)	54,297	53,858	49,797	(NA)	45,222	128,538	63,410	191,948	(NA)	(NA)	(NA)
1931.....	(NA)	229	(NA)	(NA)	(NA)	49,917	(NA)	57,882	142,690	73,575	216,265	(NA)	(NA)	(NA)
1929.....	(NA)	263	(NA)	73,396	103,382	67,527	(NA)	87,795	200,525	103,294	303,819	(NA)	(NA)	(NA)
1927.....	(NA)	269	(NA)	71,454	95,207	65,825	(NA)	81,353	172,483	109,911	282,394	(NA)	(NA)	(NA)
1925.....	(NA)	310	(NA)	74,786	100,637	69,371	(NA)	86,736	182,307	113,652	295,959	(NA)	(NA)	(NA)
1923.....	(NA)	333	(NA)	79,629	105,417	73,335	(NA)	89,898	196,183	113,170	309,353	(NA)	(NA)	(NA)
1921.....	(NA)	329	(NA)	59,741	80,665	54,748	(NA)	68,224	127,435	86,036	213,471	(NA)	(NA)	(NA)
1919.....	(NA)	371	(NA)	83,596	100,891	77,520	(NA)	87,527	171,104	90,780	261,884	(NA)	(NA)	(NA)
1914.....	(NA)	348	(NA)	78,711	55,205	74,502	(NA)	48,656	77,068	46,017	123,085	(NA)	(NA)	(NA)
1909.....	(NA)	363	(NA)	72,486	44,293	68,911	(NA)	39,300	59,976	32,119	92,095	(NA)	(NA)	(NA)
1904.....	(NA)	399	(NA)	67,009	41,228	63,969	(NA)	37,288	53,462	26,146	79,608	(NA)	(NA)	(NA)
1899.....	(NA)	355	(NA)	55,086	29,877	52,818	(NA)	27,085	39,809	16,731	56,540	(NA)	(NA)	(NA)
	INDUSTRY 3231.—PRODUCTS OF PURCHASED GLASS													
1963.....	1,016	1,044	249	26,158	138,275	21,669	43,384	103,890	309,734	320,339	627,327	13,223	<sup>2</sup> 90	(D)
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	27,710	138,130	22,914	44,948	103,532	301,483	268,725	562,101	18,482	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	26,967	127,677	22,184	43,095	95,097	286,896	247,633	520,569	7,404	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	27,965	131,848	23,203	44,780	100,658	314,357	260,327	557,811	13,629	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	28,628	135,345	24,426	46,839	105,305	311,143	293,220	581,079	20,201	(NA)	(NA)
1958 <sup>1</sup> .....	1,002	1,031	239	24,024	109,570	19,737	38,124	83,125	242,657	226,031	468,809	16,526	98	81
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,367	103,548	19,249	37,413	80,488	251,709	205,192	445,789	(S)	96	71
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,215	105,755	20,157	40,497	83,532	250,428	212,686	449,169	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,462	103,626	19,839	41,105	83,522	248,011	230,011	468,487	34,691	(NA)	(NA)
1954.....	(NA)	( <sup>4</sup> )	( <sup>4</sup> )	21,614	87,529	18,203	36,377	68,285	193,282	190,435	386,695	5,590	97	75
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	28,647	110,685	24,466	46,217	88,031	231,573	190,985	422,558	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	29,026	97,955	25,809	51,941	80,878	215,510	186,709	402,153	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	29,130	89,734	25,908	51,782	75,520	205,899	180,682	386,515	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,813	76,581	22,295	47,189	64,861	187,714	166,140	353,788	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,756	61,525	17,762	35,229	48,878	140,761	107,785	247,380	(NA)	(NA)	(NA)
1947.....	(NA)	1,048	(NA)	23,920	61,508	20,748	38,884	48,449	129,857	84,595	214,873	(NA)	(NA)	(NA)
1939.....	(NA)	557	(NA)	12,195	15,168	10,012	(NA)	10,615	23,432	26,454	49,886	(NA)	(NA)	(NA)
1937.....	(NA)	534	(NA)	14,442	17,885	12,652	(NA)	13,981	47,265	40,744	88,009	(NA)	(NA)	(NA)
1935.....	(NA)	532	(NA)	12,256	13,967	10,687	(NA)	10,896	39,438	29,300	68,738	(NA)	(NA)	(NA)
1933.....	(NA)	425	(NA)	7,435	6,910	6,520	(NA)	5,559	14,292	18,585	32,877	(NA)	(NA)	(NA)
1931.....	(NA)	610	(NA)	(NA)	(NA)	7,183	(NA)	8,650	19,077	17,250	36,327	(NA)	(NA)	(NA)
1929.....	(NA)	735	(NA)	12,721	19,987	10,811	(NA)	14,757	33,138	31,978	65,116	(NA)	(NA)	(NA)
1927.....	(NA)	650	(NA)	10,430	16,839	8,773	(NA)	12,575	28,786	24,967	53,753	(NA)	(NA)	(NA)
1925.....	(NA)	628	(NA)	10,841	16,871	9,013	(NA)	12,621	29,848	33,044	62,892	(NA)	(NA)	(NA)
1923.....	(NA)	629	(NA)	10,230	14,403	8,621	(NA)	10,921	26,595	31,900	58,495	(NA)	(NA)	(NA)
1921.....	(NA)	642	(NA)	8,395	11,579	7,050	(NA)	8,807	18,059	20,890	38,949	(NA)	(NA)	(NA)
1919.....	(NA)	802	(NA)	10,865	12,494	9,079	(NA)	8,974	22,417	26,857	49,274	(NA)	(NA)	(NA)
1914.....	(NA)	817	(NA)	12,902	8,613	11,251	(NA)	6,638	13,478	13,157	26,635	(NA)	(NA)	(NA)
1909.....	(NA)	731	(NA)	13,851	8,758	12,356	(NA)	7,013	13,521	12,151	25,672	(NA)	(NA)	(NA)
1904.....	(NA)	572	(NA)	12,073	6,842	11,028	(NA)	5,734	11,534	9,209	20,743	(NA)	(NA)	(NA)
1899.....	(NA)	514	(NA)	8,213	4,390	7,469	(NA)	3,625	8,223	8,531	16,754	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: **All employees:** For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). **Production workers:** For 1947 and prior years figures represent an average of 12 monthly figures. **Value added:** Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. **Cost of materials:** Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. **Value of shipments:** Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

n.e.c. Not elsewhere classified.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>This is a minimum percentage. The exact figure cannot be shown without disclosing figures for individual companies.

<sup>3</sup>"Flat Glass," "Glass Containers," and "Pressed and Blown Glassware, N.E.C." constituted a single classification "Glass" prior to 1937. The separate industry figures shown for 1937-1963 have been combined in order that comparable statistics can be shown for the period 1899-1963.

<sup>4</sup>Due to misclassification of small establishments in 1954 no separate establishment count is available for industries 3229 and 3231. Combined establishment count for industries 3229 and 3231 in 1954: 1,146 establishments; with 20 or more employees: 310.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
	INDUSTRY 3211.—FLAT GLASS												
Total.....	31	30	22,815	172,214	19,440	39,704	143,752	364,466	185,879	549,390	28,244	21,179	263,151
Middle Atlantic....	6	6	4,539	32,992	3,825	7,502	26,897	48,947	53,154	100,094	1,271	4,450	50,184
Pennsylvania.....	6	6	4,539	32,992	3,825	7,502	26,897	48,947	53,154	100,094	1,271	4,450	50,184
North Central.....	11	10	8,402	67,749	7,328	15,297	58,464	162,196	73,011	235,296	7,664	8,766	124,831
South and West.....	14	14	9,874	71,473	8,287	16,905	58,391	153,323	59,714	214,000	19,309	7,963	88,136
West Virginia....	5	5	3,051	22,726	2,607	5,201	19,107	35,032	16,882	52,932	3,246	2,851	27,904
	INDUSTRY 3221.—GLASS CONTAINERS												
Total.....	113	105	59,987	327,956	53,476	107,055	278,691	629,608	392,541	1,004,464	53,805	54,937	532,469
Middle Atlantic....	35	30	19,796	103,320	17,709	34,474	88,108	199,839	125,888	320,623	19,730	19,064	169,298
Pennsylvania.....	15	15	8,461	43,066	7,675	14,695	37,334	78,851	49,604	127,216	4,721	9,193	74,925
East North Central.	24	23	17,157	93,008	15,467	31,258	80,324	175,781	110,835	280,898	17,791	16,096	154,887
Illinois.....	11	11	9,184	51,083	8,282	16,943	44,347	102,855	60,389	159,172	3,465	7,965	83,118
South Atlantic.....	17	16	9,119	49,540	8,069	16,292	41,760	90,574	56,173	143,296	5,638	8,448	83,770
Maryland.....	3	3	1,824	10,385	1,542	3,420	8,335	15,252	9,165	24,397	786	( <sup>2</sup> )	( <sup>2</sup> )
West South Central.	11	11	3,555	18,884	3,120	6,404	15,280	40,542	24,837	63,826	1,975	3,141	31,713
Pacific.....	18	18	7,729	49,966	6,737	13,805	41,879	97,553	59,246	155,534	5,953	6,307	75,591
All other divisions	8	7	2,631	13,238	2,374	4,822	11,340	25,319	15,562	40,287	2,718	1,881	17,210
	INDUSTRY 3229.—PRESSED AND BLOWN GLASS, N.E.C.												
Total.....	107	95	37,999	207,292	33,057	64,855	167,921	472,212	167,473	630,945	22,664	35,358	312,342
Middle Atlantic....	26	20	11,321	66,100	9,822	19,360	53,342	117,629	43,796	159,990	5,734	11,955	99,325
Pennsylvania.....	15	14	4,922	26,412	4,229	8,006	21,182	49,897	18,494	67,592	2,193	5,505	44,661
East North Central.	26	26	12,582	69,665	10,732	20,309	56,267	171,736	60,897	230,113	4,604	12,391	126,828
South Atlantic.....	38	34	10,137	49,901	9,081	18,217	41,379	130,275	43,838	171,196	9,282	7,459	51,102
Pacific.....	4	4	388	2,401	338	688	1,948	4,752	1,531	5,176	130	105	1,020
California.....	4	4	388	2,401	338	688	1,948	4,752	1,531	5,176	130	105	1,020
All other divisions	13	11	3,571	19,225	3,084	6,281	14,985	47,820	17,411	64,470	2,914	3,448	34,067
	INDUSTRY 3231.—PRODUCTS OF PURCHASED GLASS												
Total.....	1,044	249	26,158	138,275	21,669	43,384	103,890	309,734	320,339	627,327	13,223	24,024	242,657
New England.....	54	13	1,200	5,863	1,020	2,032	4,298	10,500	6,400	16,732	472	1,204	9,694
Massachusetts....	28	4	310	1,585	257	506	1,163	3,020	995	3,946	153	305	2,011
Connecticut.....	14	6	663	3,414	573	1,139	2,574	5,972	4,152	10,104	146	597	4,997
Middle Atlantic....	418	99	9,741	49,025	5,193	16,230	36,987	95,488	87,236	182,382	3,449	9,218	73,755
New York.....	212	41	3,789	18,283	3,156	6,244	13,621	33,413	24,686	57,816	1,253	3,899	30,864
New Jersey <sup>2</sup> .....	110	36	2,992	14,577	2,571	5,170	10,900	26,865	19,072	45,316	746	2,028	13,695
Pennsylvania.....	96	22	2,960	16,165	2,466	4,816	12,466	35,210	43,478	79,250	1,450	3,291	29,196
East North Central.	208	66	9,238	56,237	7,587	15,299	42,861	145,515	158,230	301,904	5,213	8,600	124,882
Ohio.....	69	25	3,806	23,792	3,205	6,423	19,120	55,980	72,727	125,836	3,126	3,464	59,753
Indiana.....	19	8	875	4,338	738	1,475	3,260	7,743	8,183	15,936	270	635	4,984
Illinois.....	64	18	2,415	15,209	1,998	3,992	11,834	40,161	39,785	79,724	896	3,294	47,983
Michigan.....	38	11	1,879	11,558	1,423	2,943	7,616	39,127	35,804	76,150	848	1,024	11,096
Wisconsin.....	18	4	263	1,340	223	466	1,031	2,504	1,731	4,258	73	183	1,066

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
	INDUSTRY 3231.—PRODUCTS OF PURCHASED GLASS—Continued												
West North Central.	50	7	461	2,309	354	671	1,503	4,945	5,471	10,396	334	389	3,237
Missouri.....	25	4	255	1,299	199	373	889	2,358	1,579	3,937	167	231	2,002
South Atlantic.....	95	29	2,656	10,719	2,197	4,487	7,880	20,397	34,461	54,647	747	2,629	16,898
Maryland.....	15	2	315	1,212	283	546	1,018	2,029	1,276	3,331	118	( <sup>2</sup> )	( <sup>2</sup> )
Virginia.....	9	7	600	2,453	487	990	1,558	4,534	11,631	16,269	203	585	4,647
West Virginia....	20	6	370	1,247	299	658	1,049	2,677	2,119	4,755	59	404	1,813
North Carolina...	14	6	827	3,610	711	1,445	2,853	6,616	13,085	19,440	240	833	5,338
Georgia.....	6	3	206	914	142	299	454	1,948	2,521	4,310	24	( <sup>2</sup> )	( <sup>2</sup> )
Florida.....	27	4	296	1,115	242	481	821	2,319	3,703	6,153	88	446	2,568
Mountain.....	14	3	130	648	108	214	393	1,190	1,245	2,449	64	68	449
Pacific.....	146	23	1,740	9,658	1,359	2,745	6,899	21,849	19,368	41,061	1,933	1,320	9,839
California.....	121	22	1,624	9,088	1,261	2,545	6,451	20,753	18,176	38,789	1,625	1,226	8,927
All other divisions	59	9	992	3,816	851	1,706	3,069	9,850	7,928	17,756	1,011	596	3,903
Texas.....	28	4	247	1,064	204	420	847	2,671	1,540	4,190	263	161	1,070

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3211, Flat Glass: East North Central—Ohio, 4 (4,143); Indiana, 2 (250-499); Illinois, 2 (500-999); Michigan, 1 (1,000-2,499); Missouri, 2 (1,000-2,499); South Atlantic—Maryland, 1 (500-999); East South Central—Tennessee, 3 (2,500-4,999); West South Central—Arkansas, 1 (250-499); Louisiana, 1 (500-999); Oklahoma, 2 (1,000-2,499); Pacific—California, 1 (20-99).

SIC 3221, Glass Containers: New England—Connecticut, 1 (100-249); Middle Atlantic—New York, 7 (1,000-2,499); New Jersey, 13 (9,395); East North Central—Ohio, 2 (1,000-2,499); Indiana, 9 (6,586); Michigan, 2 (2,099); West North Central—Minnesota, 2 (2,500-4,999); South Atlantic—West Virginia, 6 (4,213); North Carolina, 3 (250-499); South Carolina, 1 (500-999); Georgia, 2 (1,000-2,499); Florida, 2 (500-999); East South Central—Tennessee, 1 (500-999); Alabama, 1 (250-499); Mississippi, 2 (500-999); West South Central—Arkansas, 1 (100-249); Louisiana, 2 (250-499); Oklahoma, 5 (1,000-2,499); Texas, 3 (1,000-2,499); Mountain—Arizona, 1 (1-19); Pacific—Washington, 1 (250-499); Oregon, 1 (250-499); California, 16 (5,000-9,999).

SIC 3229, Pressed and Blown Glass, n.e.c.: New England—Rhode Island, 2 (1,000-2,499); Middle Atlantic—New York, 8 (2,500-4,999); New Jersey, 3 (1,842); East North Central—Ohio, 19 (10,000 and over); Indiana, 4 (1,101); Illinois, 2 (100-249); Michigan, 1 (500-999); South Atlantic—Virginia, 1 (250-499); West Virginia, 34 (6,946); North Carolina, 1 (1,000-2,499); South Carolina, 2 (1,000-2,499); East South Central—Kentucky, 4 (1,000-2,499); Tennessee, 1 (250-499); Mississippi, 1 (20-99); West South Central—Arkansas, 1 (100-249); Oklahoma, 3 (500-999); Texas, 1 (1-19).

SIC 3231, Products of Purchased Glass: New England—Maine, 1 (20-99); New Hampshire, 3 (20-99); Rhode Island, 8 (20-99); West North Central—Minnesota, 16 (100-249); Iowa, 2 (1-19); Nebraska, 2 (1-19); Kansas, 5 (20-99); South Atlantic—Delaware, 2 (20-99); District of Columbia, 1 (1-19); South Carolina, 1 (1-19); East South Central—Kentucky, 5 (20-99); Tennessee, 10 (466); Mississippi, 2 (100-299); West South Central—Arkansas, 4 (20-99); Louisiana, 5 (1-19); Oklahoma, 5 (20-99); Mountain—Colorado, 7 (20-99); New Mexico, 2 (1-19); Arizona, 2 (20-99); Utah, 3 (1-19); Pacific—Washington, 7 (20-99); Oregon, 12 (20-99); Hawaii, 6 (20-99).

<sup>2</sup>This state or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.



TABLE 3. Detailed Statistics: 1963

Item	Flat glass (SIC 3211)	Glass containers (SIC 3221)	Pressed and blown glass, n.e.c. (SIC 3229)	Products of purchased glass (SIC 3231)
Primary product specialization ratio <sup>1</sup> .....	<sup>2</sup> .90	.99	.96	<sup>2</sup> .90
Coverage ratio <sup>2</sup> .....	(D)	99	97	(D)
Establishments, total.....number..	31	113	107	1,044
With 1 to 19 employees.....do....	1	8	12	795
With 20 to 99 employees.....do....	4	2	21	195
With 100 employees or more.....do....	26	103	74	54
Proprietors and working partners.....do....	-	6	5	562
All employees (average for the year).....do....	22,815	59,987	37,999	26,158
Payroll (all employees), total for year.....\$1,000..	172,214	327,956	207,292	138,275
Production workers:				
Average for the year.....number..	19,440	53,476	33,057	21,669
March.....do....	18,591	51,909	32,575	20,818
May.....do....	18,853	54,070	32,790	21,374
August.....do....	19,659	56,384	33,140	22,087
November.....do....	20,652	51,547	33,707	22,424
Man-hours.....1,000..	39,704	107,055	64,855	43,384
January-March.....do....	9,365	25,742	15,534	10,465
April-June.....do....	9,604	27,499	16,424	10,902
July-September.....do....	9,939	28,172	16,481	10,872
October-December.....do....	10,796	25,642	16,416	11,145
Wages.....\$1,000..	143,752	278,691	167,921	103,890
Cost of materials, etc., total.....do....	185,879	392,541	167,473	320,339
Materials, parts, containers, and supplies consumed.....do....	146,029	315,938	130,544	281,018
Cost of resales.....do....	(D)	20,302	4,377	28,276
Fuels consumed.....do....	20,615	40,798	23,640	4,840
Electric energy:				
Purchased:				
Quantity.....million kw.-hrs..	883	1,731	876	276
Cost.....\$1,000..	7,087	15,170	8,192	3,709
Generated less sold.....million kw.-hrs..	(D)	18	-	(D)
Contract work.....\$1,000..	(D)	333	720	2,499
Value of shipments (including resales), total.....do....	549,390	1,004,464	630,945	627,327
Value of resales.....do....	12,705	22,038	5,843	31,018
Value added by manufacture, adjusted.....do....	364,466	629,608	472,212	309,734
Manufacturers' inventories:				
Beginning of year, total.....do....	71,489	120,575	85,544	85,208
Finished products.....do....	21,019	87,607	49,638	40,456
Work-in-process.....do....	16,854	1,406	13,576	15,868
Materials, supplies, fuel, etc.....do....	33,616	31,562	22,330	28,884
End of year, total.....do....	72,669	137,349	95,358	88,888
Finished products.....do....	21,612	105,410	57,215	43,044
Work-in-process.....do....	17,216	1,288	14,739	16,026
Materials, supplies, fuel, etc.....do....	33,841	30,651	23,404	29,819
Expenditures for plant and equipment, total.....do....	28,866	54,043	23,493	14,982
New, total.....do....	28,244	53,805	22,664	13,223
New structures and additions to plant.....do....	5,106	13,495	6,233	2,932
New machinery and equipment.....do....	23,138	40,310	16,431	10,291
Used plant and equipment.....do....	622	238	829	1,759
Selected operating ratios:				
Payroll/Total employment.....	7,548	5,467	5,455	5,286
Production workers/Total employment.....	.85	.89	.87	.83
Man-hours/Production workers.....	2,042	2,002	1,962	2,002
Production worker wages/Man-hours.....	3.62	2.60	2.59	2.39
Cost of materials and payrolls/Total value of shipments.....	.65	.72	.59	.73
Cost of materials/Total value of shipments.....	.34	.39	.27	.51
Adjusted value added/Total employment.....	15,975	10,496	12,427	11,841
Salaries and wages/Adjusted value added.....	.47	.52	.44	.45

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See appendix A for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>This is a minimum percentage. The exact percentage cannot be shown without disclosing figures for individual companies.

<sup>3</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3211.—FLAT GLASS											
Establishments.....number..	31	-	1	-	2	2	1	7	10	8	-
All employees:											
Total.....do....	22,815	-	352	-	(D)	(D)	(D)	2,620	6,944	12,899	-
Payroll.....\$1,000..	172,214	-	2,096	-	(D)	(D)	(D)	17,110	52,459	100,549	-
Value added, adjusted.....do....	364,466	-	5,250	-	(D)	(D)	(D)	30,276	110,185	218,755	-
Value of shipments.....do....	549,390	-	8,437	-	(D)	(D)	(D)	40,760	154,674	345,519	-
Capital expenditures, new...do....	28,244	-	117	-	(D)	(D)	(D)	1,989	14,781	11,357	-
INDUSTRY 3221.—GLASS CONTAINERS											
Establishments.....number..	113	5	2	1	1	1	22	43	22	13	3
All employees:											
Total.....do....	59,987	137	(D)	(D)	(D)	(D)	4,108	14,606	16,340	17,050	7,746
Payroll.....\$1,000..	327,956	892	(D)	(D)	(D)	(D)	21,473	80,851	89,545	90,859	44,336
Value added, adjusted.....do....	629,608	21	(D)	(D)	(D)	(D)	40,387	171,109	174,541	148,924	94,626
Value of shipments.....do....	1,004,464	1,106	(D)	(D)	(D)	(D)	72,066	281,574	266,921	246,356	136,441
Capital expenditures, new...do....	53,805	13,338	(D)	(D)	(D)	(D)	4,702	18,558	9,015	6,964	1,228
INDUSTRY 3229.—PRESSED AND BLOWN GLASS, N.E.C.											
Establishments.....number..	107	2	4	6	11	10	34	15	15	10	-
All employees:											
Total.....do....	37,999	37	(D)	92	361	689	5,522	5,375	10,339	15,584	-
Payroll.....\$1,000..	207,292	181	(D)	423	1,739	3,522	27,131	28,832	57,018	88,446	-
Value added, adjusted.....do....	472,212	292	(D)	560	3,005	8,568	51,461	61,471	170,088	176,767	-
Value of shipments.....do....	630,945	385	(D)	845	3,949	11,327	68,424	82,461	220,714	242,840	-
Capital expenditures, new...do....	22,664	69	(D)	8	69	159	2,144	2,936	8,090	9,189	-
INDUSTRY 3231.—PRODUCTS OF PURCHASED GLASS											
Establishments.....number..	1,044	459	177	159	130	65	41	8	4	1	-
All employees:											
Total.....do....	26,158	852	1,161	2,176	4,133	4,719	6,259	2,894	3,964	(D)	-
Payroll.....\$1,000..	138,275	3,560	5,428	10,507	19,386	22,390	30,612	18,161	28,231	(D)	-
Value added, adjusted.....do....	309,734	8,182	10,382	18,306	34,953	41,758	62,594	46,588	86,971	(D)	-
Value of shipments.....do....	627,327	13,159	19,758	34,836	71,192	78,556	129,503	107,646	172,677	(D)	-
Capital expenditures, new...do....	13,223	713	821	1,372	1,521	2,558	2,538	1,252	2,448	(D)	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

<sup>1</sup>Includes capital expenditures for plants under construction but not in operation which constitute approximately \$2-5 million of the total for the size class.



TABLE 5A. **Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B+C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3211	Flat glass.....1963..	549,390	(D)	(D)	13,029	<sup>1</sup> 90	<sup>2</sup> 733,104	(D)	(D)	(D)
	1958..	384,711	(D)	(D)	2,369	<sup>1</sup> 90	<sup>2</sup> 546,991	(D)	(D)	(D)
3221	Glass containers.....1963..	1,004,464	973,254	7,514	23,696	99	982,382	973,254	9,128	99
	1958..	862,117	836,776	9,868	15,473	99	841,560	836,776	4,784	99
3229	Pressed and blown glass, n.e.c....1963..	630,945	599,657	22,776	8,512	96	615,126	599,657	15,469	97
	1958..	445,361	431,911	8,668	4,782	98	447,997	436,518	11,479	97
3231	Products of purchased glass.....1963..	627,327	(D)	(D)	38,738	<sup>1</sup> 90	<sup>2</sup> 729,287	(D)	(D)	(D)
	1958..	468,809	430,703	10,607	27,499	98	<sup>2</sup> 533,145	<sup>2</sup> 430,703	102,442	81

NOTE: See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.e.c. Not elsewhere classified.

<sup>1</sup>This is a minimum percentage. The exact percentage cannot be shown without disclosing figures for individual companies.

<sup>2</sup>Includes laminated glass (product classes 32113 and 32313) which is primary to industry 3211 when made by primary glass producers, and industry 3231 when made from purchased glass. Separate totals withheld to avoid disclosing figures of individual companies.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)

miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Flat glass (SIC 3211)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Pressed and blown glass, n.e.c. (SIC 3229)	Other industries
FLAT GLASS INDUSTRY					PRESSED AND BLOWN GLASS, N.E.C., INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	549,390	(X)		Total shipments and receipts of the industry.....	(X)	630,945	(X)
	Primary products.....	<sup>1</sup> 733,104	(D)	(D)	32291	Primary products.....	615,126	599,657	<sup>4</sup> 15,469
32111	Sheet (window) glass.....	141,479	(D)	(D)	32292	Table, kitchen, art, and novelty glassware.....	220,281	218,593	1,688
32112	Plate glass.....	274,355	(D)	(D)	32293	Lighting and electronic glassware..	210,347	210,347	(X)
32114	Other flat glass.....		(D)	(D)	32293	Glass fiber.....	91,611	85,696	5,915
32113	Laminated glass.....	<sup>1</sup> 317,270	(D)	(D)	32294	Other pressed and blown glassware..	92,485	84,737	7,748
	Secondary products.....	(X)	(D)	(X)	32290	Other pressed and blown glass, n.e.c., n.s.k.....	402	284	118
	Miscellaneous receipts.....	(X)	13,029	(X)		Secondary products.....	(X)	<sup>5</sup> 22,776	(X)
						Miscellaneous receipts.....	(X)	8,512	(X)
		All industries	Glass containers (SIC 3221)	Other industries			All industries	Products of purchased glass (SIC 3231)	Other industries
GLASS CONTAINERS INDUSTRY					PRODUCTS OF PURCHASED GLASS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	1,004,464	(X)		Total shipments and receipts of the industry.....	(X)	627,327	(X)
	Glass containers.....	982,382	973,254	<sup>2</sup> 9,128	32313	Primary products.....	<sup>1</sup> 729,287	(D)	(D)
	Secondary products.....	(X)	<sup>3</sup> 7,514	(X)	32315	Laminated glass.....	<sup>1</sup> 317,270	(D)	(D)
	Miscellaneous receipts.....	(X)	23,696	(X)	32316	Mirrors.....	123,424	(D)	(D)
	Sales of products bought and resold	(X)	22,038	(X)	32310	Other glass products, made of purchased glass.....	275,167	(D)	(D)
	Other miscellaneous receipts.....	(X)	1,658	(X)		Other glass products made of purchased glass, n.s.k.....	13,426	(D)	(D)
						Secondary products.....	(X)	(D)	(X)
						Miscellaneous receipts.....	(X)	38,738	(X)
						Contract and commission work.....	(X)	5,667	(X)
						Sales of products bought and resold	(X)	31,018	(X)
						Other miscellaneous receipts.....	(X)	2,053	(X)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Includes totals for laminated glass (product classes 32113 and 32313) which is primary to industry 3211 when made by primary glass producers, and industry 3231, when made from purchased glass. Separate totals are withheld to avoid disclosing figures for individual companies.

<sup>2</sup>Industry 3229, Pressed and Blown Glass, N.E.C., had shipments totaling over \$2 million. The exact figure is withheld to avoid disclosing figures for individual companies.

<sup>3</sup>Includes the following product class which totaled \$2 million or more but are withheld to avoid disclosing individual company figures—26530, Corrugated and solid fiber boxes.

<sup>4</sup>Includes \$3 million shipped by industry 3221, Glass Containers; and \$7 million shipped by industry 3296, Mineral Wool.

<sup>5</sup>Includes the following product classes which totaled \$2 million or more, but are withheld to avoid disclosing individual company figures—32210, Glass containers; 36343, Other small household electrical appliances; 36422, Commercial and institutional type electric fixtures; and 36423, Industrial type electric fixtures.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Unit of measure	Shipments and interplant transfers				
			Production for all purposes (quantity)	Total		Transfers to other plants of the same company	
				Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
			1963				
3211- --	FLAT GLASS, TOTAL <sup>1</sup> .....	.....	(X)	(X)	733,104	(X)	(X)
32111 --	Sheet (window) glass (not rolled) including colored, total <sup>2</sup> .....	1,000 boxes 50 sq. ft. each single strength or equiv.	26,165	24,968	141,479	(X)	(D)
	Uncolored:						
32111 22	Single strength.....	...do.....	10,465	10,863	56,657	(X)	(X)
32111 23	Double strength, including greenhouse.....	...do.....	4,834	4,849	29,899	(X)	(X)
32111 24	Heavy sheet.....	...do.....	9,240	7,707	43,295	(X)	(X)
32111 21	Thin, including picture glass.....	...do.....	1,626	1,549	11,628	(X)	(X)
32111 25	Tinted or colored (all thicknesses).....	...do.....					
32112 11	Plate glass <sup>2</sup> .....	1,000 sq. ft.....	716,732	476,242	<sup>3</sup> 175,820	(X)	(D)
32114 --	Other flat glass:						
32114 11	Rolled and wire glass <sup>2 4</sup> .....	...do.....					
32114 98	Other flat glass (except laminated), such as plate glass blanks, bent and tempered glass, glass doors, multiple-sealed insulating units, etc., from glass made in the same establishment.....	...do.....	(X)	185,402	98,535	(D)	(D)
32113 --	Laminated glass, including safety glass, total <sup>5</sup> .....	.....	(X)	188,003	317,270	(X)	(X)
32313 --							
32113 11	Laminated plate 1/4" and under.....	1,000 sq. ft.....	(X)	162,815	295,317	(X)	(X)
32313 11							
32113 31	Laminated plate over 1/4" <sup>4</sup> .....	...do.....	(X)	25,188	21,953	(X)	(X)
32313 31							
32113 51	Laminated sheet (window) glass <sup>4</sup> .....	...do.....	(X)	25,188	21,953	(X)	(X)
32313 51							
32113 71	Other laminated glass <sup>4</sup> .....	...do.....	(X)	25,188	21,953	(X)	(X)
32313 98							
			1958				
3211- --	FLAT GLASS, TOTAL <sup>1</sup> .....	.....	(X)	(X)	546,991	(X)	(X)
32111 --	Sheet (window) glass (not rolled) including colored, total <sup>2</sup> .....	1,000 boxes 50 sq. ft. each single strength or equiv.	18,177	17,911	92,339	(X)	(D)
	Uncolored:						
32111 22	Single strength.....	...do.....	8,563	8,231	38,144	(X)	(X)
32111 23	Doubled strength, including greenhouse.....	...do.....	4,679	4,725	26,046	(X)	(X)
32111 24	Heavy sheet.....	...do.....	3,907	3,945	21,262	(X)	(X)
32111 21	Thin, including picture glass.....	...do.....	303	313	1,460	(X)	(X)
32111 25	Tinted or colored (all thicknesses).....	...do.....	725	697	5,427	(X)	(X)
32112 11	Plate glass <sup>2</sup> .....	1,000 sq. ft.....	521,338	390,414	144,771	(X)	(D)
32114 --	Other flat glass:						
32114 11	Rolled and wire glass <sup>2 4</sup> .....	...do.....					
32114 98	Other flat glass (except laminated), such as plate glass blanks, bent and tempered glass, glass doors, multiple-sealed insulating units, etc., from glass made in the same establishment.....	...do.....	(X)	78,129	56,052	28,851	9,379
32113 --	Laminated glass, including safety glass, total <sup>5</sup> .....	.....	(X)	(X)	253,829	(X)	(X)
32313 --							
32113 11	Laminated plate 1/4" and under.....	1,000 sq. ft.....	(X)	115,635	216,696	(X)	(X)
32313 11							
32113 31	Laminated plate over 1/4" <sup>4</sup> .....	...do.....	(X)	(X)	37,133	(X)	(X)
32313 31							
32113 51	Laminated sheet (window) glass <sup>4</sup> .....	...do.....	(X)	(X)	37,133	(X)	(X)
32313 51							
32113 71	Other laminated glass <sup>4</sup> .....	...do.....	(X)	(X)	37,133	(X)	(X)
32313 98							

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	1963			1958		
			Production for all purposes (quantity)	Total shipments, including interplant transfers		Production for all purposes (quantity)	Total shipments, including interplant transfers	
				Quantity	Value (\$1,000)		Quantity	Value (\$1,000)
3221- --	GLASS CONTAINERS, TOTAL <sup>6</sup> .....	.....	(X)	(X)	982,382	(X)	(X)	841,560
	Machine made: <sup>7</sup>							
	Narrow neck:							
32210 11	Food.....	1,000 gross.	54,877	19,225	129,862	52,714	15,422	105,530
32210 13	Medicinal and health supplies.....	..do.....		16,730	70,126		16,102	62,120
32210 15	Chemical, household, and industrial.....	..do.....		7,412	44,261		9,658	70,171
32210 17	Toiletries and cosmetics.....	..do.....		10,590	41,107		9,834	34,932
32210 19	Beverage, returnable.....	..do.....		12,303	109,373		8,608	74,495
32210 21	Beverage, nonreturnable.....	..do.....	13,543	3,892	21,224	8,952	1,334	9,218
32210 23	Beer, returnable.....	..do.....	3,970	2,693	17,740	1,372	2,693	18,110
32210 25	Beer, nonreturnable.....	..do.....	2,901	26,745	108,046	3,218	8,604	46,211
32210 27	Liquor.....	..do.....	27,081	10,953	85,588	8,772	9,454	80,995
32210 29	Wine.....	..do.....	11,878	5,233	46,499	9,983	4,538	40,550
	Wide mouth:							
32210 31	Food, including packers' tumblers, fruit jars and jelly glasses.....	..do.....	60,463	49,199	235,321	53,537	42,854	220,607
32210 32	Medicinal and health supplies.....	..do.....		4,860	18,999		4,628	18,829
32210 33	Chemical, household, and industrial.....	..do.....		1,460	7,501		1,855	9,013
32210 34	Toiletries and cosmetics.....	..do.....		3,481	17,207		2,962	11,873
32210 37	Dairy products.....	..do.....		1,522	19,652		1,923	22,176
32210 62	Export shipments, machine-made (all types).....	..do.....	(X)	1,588	8,940	(X)	2,897	13,214
32210 71	Net weight of machine-made glass containers packed..	1,000 lbs...	(X)	12,856,748	(X)	(X)	10,789,356	(X)
32210 54	Hand-made, all types, domestic and export.....	1,000 gross.	(X)	(X)	(X)	(NA)	(NA)	3,516
32210 00	Glass containers, not specified by kind.....	..do.....	(X)	(X)	936			
Total shipments including interplant transfers								
			1963		1958			
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)		
3229- --	PRESSED AND BLOWN GLASS, N.E.C., TOTAL:							
	As reported in the census of manufactures.....	.....	(X)	615,126	(X)	447,997		
	As reported on Census Annual Forms MA-32E and MA-32 .....	.....	(X)	609,628	(X)	(X)		
32291 --	Table, kitchen, art, and novelty glassware, total:							
	As reported in the census of manufactures.....	.....	(X)	220,281	(X)	149,006		
	As reported on Census Annual Form MA-32E <sup>9</sup> .....	.....	(X)	216,226				
	Machine-made (includes glassware made by machine with automatic and semi-automatic feeds):							
32291 11	Tumblers (except those designed exclusively for use as packers), goblets, and other stemware..	1,000 dozen.	60,380	63,721	56,195	50,887		
32291 12	Tableware (designed for serving food and drink; excluding tumblers, goblets and other stemware).....	..do.....	}	(X)	106,184	23,297	27,401	
32291 13	Kitchenware and cookingware (designed for preparing, cooking and storing food):							
	Custard cups, cake and bread bakers, casseroles, and pie plates.....	1,000 pieces				52,195	12,041	
32291 14	Coffee and beverage makers (excluding tea kettles).....	.....				(NA)	(NA)	
32291 15	Other kitchenware and cookingware (including top-of-stove ware).....	.....				(NA)	(NA)	
32291 16	Ornamental, decorative, novelty glassware and smokers' accessories.....	1,000 dozen.	7,934	13,303	6,014	8,699		
	Hand-made:							
	Pressed ware:							
32291 17	Tumblers, goblets, and other stemware.....	..do.....	271	2,517	368	2,344		
32291 18	Tableware (excluding tumblers, goblets, and other stemware).....	..do.....	540	6,371	459	6,194		
32291 19	Other, including ornamental, decorative, and novelty glassware, and smokers' accessories.....	.....	(X)	7,108	(NA)	(NA)		
	Blown ware:							
32291 20	Tumblers.....	1,000 dozen.	873	3,005	479	2,050		
32291 21	Goblets and other stemware (including footed ware).....	..do.....	965	7,075	1,029	7,483		
32291 22	Other, including ornamental, decorative, and novelty glassware and smokers' accessories .....	.....	(X)	6,942	(NA)	(NA)		

See footnotes at end of table.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3229- --	PRESSED AND BLOWN GLASS, N.E.C.—Continued					
32292 --	Lighting and electronic glassware, total:					
	As reported in the census of manufactures.....	(X)	(X)	210,347	(X)	143,286
	As reported on Census Annual Form MA-32E <sup>9</sup> 10.....	(X)	(X)	210,261		
32292 12	Bowls and enclosing globes (all types including lantern globes), lamp chimneys, lamp parts, shades, reflectors, and torchiers.....	(X)	(X)	21,673	(X)	16,756
32292 13	Automotive (including sealed beam), searchlight, and other lenses (including railroad, marine, air, and traffic lighting glassware) <sup>10</sup> 11.....	(X)	(X)	22,882	(NA)	(NA)
32292 14	Electric-light bulb blanks.....	(X)	(X)	38,463		
32292 15	Tubing and cane for electric light bulbs (including exhaust tubes and flares for fluorescent lamps).....	(X)	(X)	6,803		
32292 16	Electronic-tube blanks (radio, X-ray, radar and special tubes).....	(X)	(X)	120,440	(X)	124,573
32292 17	Tubing, cane and other glass parts for electronic tubes and devices.....	(X)	(X)			
32292 18	Television tube blanks and parts.....	(X)	(X)			
32292 19	Other electrical discharge tubing, including fluorescent and neon.....	(X)	(X)			
32292 20	Other interior and exterior lighting glassware, (including shields and plates for fluorescent and incandescent lighting fixtures, etc.).....	(X)	(X)			
			1963		1958	
			Production for all purposes	Total shipments including interplant transfers	Production for all purposes	Total shipments including interplant transfers
			(1,000 pounds)	Quantity (1,000 pounds) Value (\$1,000)	(1,000 pounds)	Quantity (1,000 pounds) Value (\$1,000)
32293 --	Textile type fiber, total:					
	As reported in the census of manufactures.....	(X)	(X)	91,611	(X)	113,484
	As reported on Census Annual Form MA-32J <sup>12</sup> .....	13 199,966	13 191,904	91,123	(X)	(X) 59,670
32293 21	Yarn, strand, staple yarn, and sliver.....	13 142,992	13 134,536	71,555	(NA)	113,484
32293 25	Mat.....				(NA)	59,670
32293 23	Roving chopped strand and milled fiber.....	13 56,974	13 57,368	19,568		
32294 --	All other pressed and blown glassware, total:					
	As reported in the census of manufactures.....	(X)	(X)	92,485	(X)	(X) 96,035
	As reported on Census Annual Form MA-32E <sup>9</sup> 10.....	(X)	(X)	92,018		
32294 11	Tubing, rod, and canes, all types (except electrical and electronic).....	(X)	(X)	49,092	(X)	16,419
32294 12	Scientific and laboratory glassware.....	(X)	(X)		(X)	(X) 7,555
32294 13	All other technical glassware (included insulators), except lighting and electronic glassware..	(X)	(X)		(X)	(X) 24,465
32294 14	Industrial glassware (including such products as gauge glasses, instrument faces, machine parts, glass knobs, meter covers, pumps, battery jars, etc.).....	(X)	(X)	24,218	(X)	(X) 4,492
32294 15	Ophthalmic lens blanks, optical instrument lens blanks, sun glass lenses and other eye-protective lenses.....	(X)	(X)		(X)	(X) 14,825
	Other (including glass blocks, stationers' ware, nursery bottles, Christmas tree ornaments; etc.):	(X)	(X)	17,939	(X)	(NA) (NA)
32294 16	Machine made.....	(X)	(X)	769	(X)	(X) 1,262
32294 17	Hand made.....	(X)	(X)		(X)	(X) 2,279
32294 00	Other pressed and blown glassware, not specified by kind.....	-	-	-	(X)	(X) -
32290 00	Pressed and blown glassware, n.e.c.,.....	(X)	(X)	402	-	-

See footnotes at end of table.

TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (1,000 sq. ft.)	Value (\$1,000)	Quantity (1,000 sq. ft.)	Value (\$1,000)
3231- --	GLASS PRODUCTS MADE OF PURCHASED GLASS, EXCEPT LAMINATED, TOTAL <sup>14</sup> .....	(X)	412,017	(X)	279,316
32315 --	Mirrors, total.....	(X)	123,424	(X)	87,974
32315 11	Mirrors - framed (decorated and undecorated): Plate glass: Quantity reported.....	7,974 (X)	15,760 9,549	18,812	24,737
	Quantity not reported.....				
32315 51	Other glass.....	(S)	37,272	(NA)	5,371
32315 61	Mirrors - unframed (decorated and undecorated): Plate glass: Quantity reported.....	34,076 (X)	26,945 9,049	(NA)	24,666
	Quantity not reported.....				
32315 63	Other glass: Quantity reported.....	27,263 (X)	13,528 2,464	(NA)	11,222
	Quantity not reported.....				
32315 98	Automotive rearview mirrors.....	(X)	(15)	(X)	16,208
32315 00	Mirrors, not specified by kind.....	(X)	8,857	(X)	5,770
32316 --	Other glass products made of purchased glass, total... ..	(X)	275,167	(X)	157,095
32316 31	Glassware, etched, ornamented, bent, etc: Tumblers, goblets and other stemware.....	(X)	8,101	(X)	12,050
32316 35	Tableware (except tumblers, goblets, and other stemware), including tableware from flat glass.....	(X)	6,181	(X)	6,514
32316 39	All other glassware (except flat glass products) including technical and scientific.....	(X)	58,156	(X)	44,924
32316 11	Plate glass, except tempered, bent, or enameled.....	1,361	2,005	(X)	93,605
32316 21	Stained and leaded glass and stained glass slabs.....	(S)	6,880		
32316 71	Multiple - glazed, sealed insulating glass units.....	(X)	31,299		
32316 98	Other glass products (except laminated) such as tempered, bent (except when made into tableware), or enameled sheet, plate, and rolled glass; shower doors and tub enclosures; automobile glass other than laminated (cut, leveled and polished); watch crystals, etc.....	(X)	148,109		
32316 00	Other glass products made of purchased glass, n.s.k.....	(X)	14,436	(X)	(X)
32310 00	Products made of purchased glass, not specified by kind.....	(X)	13,426	(X)	34,247
32113 -- 32313 --	Laminated glass, including safety glass, total <sup>16</sup> .....	188,003	317,270	(X)	253,829

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(S) Withheld because the reported figures did not meet publication standards.

<sup>1</sup>Includes laminated glass (product codes 3211311-3211371 and 3231311-3231398).

<sup>2</sup>Product detail for 3211122-25, 3211211, and 3211411 is from Current Industrial Reports Series BDSAF-375, Flat Glass.

<sup>3</sup>Revised from shipments figure of \$171,618 thousand published in Current Industrial Reports Series BDSAF-375(63)-4, Flat Glass.

<sup>4</sup>Includes glass of which one or both surfaces are roughed, figured, ribbed, or otherwise impressed. Excludes glass block and tile.

<sup>5</sup>Includes laminated glass made in the Flat Glass Industry (3211) and laminated glass made in Products of Purchased Glass Industry (3231), combined to avoid disclosing figures for individual companies. For 1963, no production or shipments of "laminated plate, over 1/4" (code 3211331), "laminated sheet (window) glass" (code 3211351) or "other laminated glass" (code 3211371) were reported in the Flat Glass Industry (3211).

<sup>6</sup>Comparable monthly quantity data are published in Current Industrial Reports Series M32G, Glass Containers.

<sup>7</sup>Production figures include all containers produced whether for domestic or export shipment. Shipments figures include only domestic shipments. Refer to product code 3221062 for export shipments.

<sup>8</sup>Net weight was not reported for shipments totaling 11,509 thousand gross in 1963.

<sup>9</sup>Statistics on shipments of pressed and blown glassware were collected on Form MA-32E and previously published in Current Industrial Reports Series M32E. Detail may not add to product class total because of revisions to product class content and product detail between 1963 and 1958.

<sup>10</sup>Product class totals for 32292 and 32294 are not directly comparable between 1958 and 1963. In 1958, certain lenses, e.g., automotive (including sealed beam) lantern, searchlight, etc., were included with "Other Pressed and Blown Glassware" (32294) the exact amount of which is not available. For 1963 these lenses are classified in Product Class 32292, Lighting and Electronic Glassware.

<sup>11</sup>Shipments of railroad, marine and traffic lighting glassware were valued at \$1,957 thousand in 1958.

<sup>12</sup>Data for fibrous glass were collected on Form MA-32J and previously published in Current Industrial Reports Series M32J.

<sup>13</sup>Quantities include normal sizing, but exclude the weight of vinyl polyester, and other synthetics used in coatings.

<sup>14</sup>Total excludes product class 32313, Laminated Glass. See footnote 16.

<sup>15</sup>Separate data were not collected for automotive rearview mirrors for 1963. An indeterminable amount is included in product codes 3231511-3231563.

<sup>16</sup>Includes laminated glass made in the Flat Glass Industry (3211) and the Products of Purchased Glass Industry (3231), combined to avoid disclosing figures for individual companies. For detailed data see products of Industry 3211 above.



TABLE 6B. **Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)		Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value			Production	Unit value
3211	Flat glass <sup>1</sup> .....1963..	139	107	322	Pressed and blown glassware.....1963..	131	116
	.....1958..	98	112		.....1958..	104	118
32111	Sheet (window) glass (not rolled) including colored.....1963..	120	118	3221	Glass containers.....1963..	141	111
	.....1958..	86	108		.....1958..	114	117
32112 and 32114	Plate glass and other flat glass.....1963..	173	97	3229	Pressed and blown glass, n.e.c. <sup>2</sup> .....1963..	(2)	(2)
	.....1958..	112	110		.....1958..	(2)	(2)
32113 and 32313	Laminated glass, including safety glass.....1963..	120	112	32291	Table, kitchen, art, and novelty glassware.....1963..	102	154
	.....1958..	93	116		.....1958..	94	128
				32293	Textile type fiber.....1963..	327	82
					.....1958..	193	91
				3231	Products of purchased glass <sup>2</sup> .....1963..	(2)	(2)
					.....1958..	(2)	(2)
				32315	Mirrors.....1963..	182	98
					.....1958..	133	96

n.e.c. Not elsewhere classified.

<sup>1</sup>Includes laminated glass made in industry 3211, Flat Glass, and industry 3231, Products of Purchased Glass.

<sup>2</sup>Not shown pending further review of data covering products not included below.

TABLE 6C. **Product Classes—Value Shipped by All Manufacturing Establishments, 1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3211-	Flat glass <sup>2</sup> .....	733,104	679,690	623,249	747,786	782,230	546,991	499,267	297,717
32111	Sheet window glass.....	141,479	124,853	109,860	105,279	132,704	92,339	99,124	72,525
32112	Plate glass.....	274,355	249,013	240,051	297,157	280,593	200,823	163,924	124,178
32114	Other flat glass.....								
32113 and 32313	Laminated glass, including safety glass....	317,270	305,824	273,338	345,350	368,933	253,824	236,219	101,014
3221-	Glass containers.....	982,382	964,953	944,202	910,267	901,773	841,560	628,916	422,963
3229-	Pressed and blown glass, n.e.c. <sup>3</sup> .....	609,628	592,891	572,694	566,391	545,450	447,997	416,997	(NA)
32291	Table, kitchen, art, and novelty glassware <sup>4</sup> .....	216,226	195,587	193,440	188,534	174,456	149,006	123,478	(NA)
32292	Lighting and electronic glassware <sup>4</sup> .....	210,261	198,222	171,801	169,894	171,696	143,286	149,991	(NA)
32293	Glass fiber.....	91,123	89,924	89,895	87,609	84,217	59,670	33,985	(NA)
32294	Other pressed and blown glassware <sup>4</sup> .....	92,018	109,138	117,558	120,354	115,081	96,035	109,543	(NA)
3231-	Products of purchased glass <sup>6</sup> .....	412,017	349,077	320,333	322,111	336,111	279,316	239,810	(NA)
32315	Mirrors (made of purchased glass).....	123,424	86,169	79,887	93,185	101,983	87,974	68,867	54,875
32316	Other glass products, made of purchased glass.....	275,167	229,216	206,928	193,350	194,903	157,095	170,943	(NA)
32310	Products of purchased glass, n.s.k.....	13,426	(S)	(S)	(S)	(S)	(S)	-	-

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

n.s.k. Not specified by kind.

<sup>1</sup>The figures for 1959-1962 represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, consequently, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>2</sup>Includes laminated glass shipped by establishments-classified in industry 3211, Flat Glass, and industry 3231, Products of Purchased Glass, to avoid disclosing figures for individual companies.

<sup>3</sup>See footnotes 4 and 5.

<sup>4</sup>Source: Current Industrial Reports Series M32E, Pressed and Blown Glassware.

<sup>5</sup>Source: (1963 and 1962) Current Industrial Reports Series M32J, Fibrous Glass. Prior years data from annual survey of manufactures.

<sup>6</sup>Excludes laminated glass, product class 32313.

TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments 1963 <sup>1</sup>	Product class and geographic area	Value of shipments 1963 <sup>1</sup>	Product class and geographic area	Value of shipments 1963 <sup>1</sup>
TABLE, KITCHEN, ART AND NOVELTY GLASSWARE (32291)		OTHER PRESSED AND BLOWN GLASSWARE (32294)—Con.		OTHER GLASS PRODUCTS MADE OF PURCHASED GLASS (32316)—Con.	
United States, total.....	220,281	East North Central, South and West.....	41,575	New England.....	10,281
Middle Atlantic.....	38,460	MIRRORS (32315)		Massachusetts.....	4,186
East North Central.....	94,080	United States, total.....	123,424	Connecticut.....	3,709
South and West.....	87,741	New England.....	5,617	Middle Atlantic.....	106,689
West Virginia.....	74,253	Middle Atlantic.....	27,612	New York.....	32,775
LIGHTING AND ELECTRONIC GLASSWARE (32292)		New York.....	18,811	New Jersey.....	39,070
United States, total.....	210,347	New Jersey.....	2,335	Pennsylvania.....	34,844
Northeast.....	73,579	Pennsylvania.....	6,466	East North Central.....	105,672
East North Central.....	109,517	East North Central.....	32,682	Ohio.....	47,738
South and West.....	27,251	Ohio.....	9,516	Indiana.....	6,955
West Virginia.....	10,788	Indiana.....	11,196	Illinois.....	30,005
GLASS FIBER (32293)		West North Central.....	1,310	Michigan.....	17,092
United States, total.....	91,611	South Atlantic.....	38,018	Wisconsin.....	3,882
Northeast and North Central.....	29,987	Virginia.....	13,904	West North Central.....	6,584
South and West.....	61,624	North Carolina.....	22,872	Minnesota.....	1,562
OTHER PRESSED AND BLOWN GLASSWARE (32294)		East South Central.....	11,038	Missouri.....	4,687
United States, total.....	92,485	West South Central.....	2,237	South Atlantic.....	18,597
Northeast.....	50,910	West.....	4,910	West Virginia.....	4,857
		California.....	4,421	Georgia.....	3,768
		OTHER GLASS PRODUCTS MADE OF PURCHASED GLASS (32316)		Florida.....	5,956
		United States, total.....	275,167	East South Central.....	1,764
				West South Central.....	4,817
				Texas.....	3,653
				Mountain.....	1,251
				Pacific.....	19,512
				Oregon.....	1,165
				California.....	17,903

<sup>1</sup>For the specified product classes, production of over \$1 million were reported for 1963 for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 32291, New York, Pennsylvania, Ohio, Indiana, Oklahoma, and California; 32292, Rhode Island, New York, Pennsylvania, Ohio, Indiana, Michigan, Kentucky, and Oklahoma; 32293, Rhode Island, Pennsylvania, Ohio, Kansas, West Virginia, North Carolina, South Carolina, and Tennessee; 32294, Rhode Island, New York, New Jersey, Pennsylvania, Ohio, Indiana, Virginia, West Virginia, Kentucky, and Oklahoma; 32315, Connecticut, Illinois, Michigan, Tennessee, Mississippi, and Arkansas; 32316, Rhode Island, Virginia, and Tennessee.



TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3211.—FLAT GLASS			
	Materials, containers, and supplies, total.....		(X)	146,029	(X)	94,234
281228	Sodium carbonate (soda ash) (98-100% Na <sub>2</sub> CO <sub>3</sub> ).....	Short tons.....	398,757	13,524	248,348	9,096
144301	Glass sand, all types.....	..do.....	1,880,629	8,595	1,348,968	6,048
281976	Sodium sulfate, including salt cake.....	..do.....	67,624	2,141	49,275	1,719
321121	Plate glass.....	1,000 sq. ft....	87,569	18,952	(NA)	(NA)
321111	Sheet glass.....	..do.....	15,166	2,587	(NA)	(NA)
	Refractories:					
325501	Clay.....	Short tons.....	14,428	2,622	(NA)	(NA)
329701	Nonclay.....	..do.....	9,807	1,641	(NA)	(NA)
265011	Paper and paperboard containers, including folding, corrugated, and set-up.....		(X)	4,753	(NA)	(NA)
244011	Wooden boxes and crates.....		(X)	7,902	(X)	10,338
999816	Cullet (glass scrap).....	1,000 lbs.....	998,149	7,472	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	75,840	(X)	67,033
			INDUSTRY 3221.—GLASS CONTAINERS			
	Materials, containers, and supplies, total.....		(X)	315,938	(X)	273,197
281228	Sodium carbonate (soda ash) (98-100% Na <sub>2</sub> CO <sub>3</sub> ).....	Short tons.....	1,623,890	58,082	1,258,695	44,711
144301	Glass sand, all types.....	..do.....	4,724,608	26,906	3,832,113	20,416
281976	Sodium sulfate, including salt cake.....	..do.....	-	-	10,177	362
	Refractories:					
325501	Clay.....	..do.....	(S)	2,739	(NA)	(NA)
329701	Nonclay.....	..do.....	(S)	3,078	(NA)	(NA)
265011	Paperboard boxes and containers, including folding, corrugated, and set-up.....		(X)	100,472	(X)	85,783
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	124,673	(X)	121,925
			INDUSTRY 3229.—PRESSED AND BLOWN GLASS, N.E.C.			
	Materials, containers, and supplies, total.....		(X)	130,544	(X)	104,081
281228	Sodium carbonate (soda ash) (98-100% Na <sub>2</sub> CO <sub>3</sub> ).....	Short tons.....	148,317	5,349	124,801	4,618
144301	Glass sand, all types.....	..do.....	767,155	5,783	505,842	4,163
281976	Sodium sulfate, including salt cake.....	..do.....	14,479	926	(NA)	(NA)
321121	Plate glass.....	1,000 sq. ft....	}	(X)	(NA)	4,734
321111	Sheet glass.....	..do.....				
322911	Glass tumblers, stemware, and other tableware.....	..do.....				
322901	Other glass products.....					
	Refractories:					
325501	Clay.....	Short tons.....	7,967	1,723	(NA)	(NA)
329701	Nonclay.....	..do.....	(S)	1,131	(NA)	(NA)
265011	Paper and paperboard containers including folding, corrugated, and set-up.....		(X)	23,613	(X)	17,643
244011	Wooden boxes and crates.....		(X)	628	(NA)	(NA)
999816	Cullet (glass scrap).....	1,000 lbs.....	417,593	6,425	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	83,735	(X)	67,924
973000	All other materials, containers, and supplies, n.s.k.....		(X)	-	-	4,999
			INDUSTRY 3231.—PRODUCTS OF PURCHASED GLASS			
	Materials, containers, and supplies, total.....		(X)	281,018	(X)	199,597
321121	Plate glass.....	1,000 sq. ft....	293,675	104,865	262,085	79,363
321111	Sheet glass:					
	Quantity reported.....	..do.....	255,939	47,930	144,917	17,894
	Quantity not reported.....	..do.....	(X)	(X)	(X)	6,464
322911	Glass tumblers, stemware, and other tableware.....		(X)	3,871	(X)	5,137
322901	Other glass products.....		(X)	14,721	(X)	10,155
265011	Paper and paperboard containers including folding, corrugated, and set-up.....		(X)	4,518	(X)	5,544
244011	Wooden boxes and crates.....		(X)	3,490	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	72,594	(X)	55,209
973000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....		(X)	29,029	(X)	19,831

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.s.k. Not specified by kind.

<sup>1</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

Item	Flat glass (SIC 3211)	Glass Containers (SIC 3221)	Pressed and blown glass, n.e.c. (SIC 3229)	Products of purchased glass (SIC 3231)
Total cost of purchased fuels and electric energy.....\$1,000..	23,576	55,760	30,425	8,052
Total cost of purchased fuels.....do....	16,698	41,048	22,361	3,682
Bituminous coal, lignite, and anthracite:				
Quantity.....1,000 short tons..	337	71	(S)	93
Cost.....\$1,000..	2,334	548	(S)	683
Coke and breeze:				
Quantity.....1,000 short tons..	-	-	(S)	-
Cost.....\$1,000..	-	-	(S)	-
Fuel oil (distillate and residual):				
Quantity.....1,000 barrels of 42 gallons..	(S)	1,527	329	89
Cost.....\$1,000..	(S)	4,523	1,100	300
Gas (natural, manufactured, still, blast furnace, and coke oven):				
Quantity.....million cu.ft..	32,728	80,774	39,533	3,797
Cost.....\$1,000..	13,649	35,699	19,501	1,997
Other fuels.....do....	465	278	1,457	702
Electric energy:				
Purchased:				
Quantity.....million kw.-hrs..	828	1,676	863	295
Cost.....\$1,000..	6,878	14,712	8,064	4,370
Generated less sold.....million kw.-hrs..	170	17	-	18
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	338	438	202	130
Prime movers, total.....do....	84	60	17	23
Driving generators.....do....	66	11	5	19
Not driving generators.....do....	18	49	12	4
Electric motors, total.....do....	287	382	185	114
Driven by purchased energy.....do....	255	378	185	107
Driven by energy generated at establishment.....do....	32	4	-	7
Aggregate horsepower per 100 production workers.....	1,769	821	610	567

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3229-	PRESSED AND BLOWN GLASS, N.E.C.										
	Entire industry.....	107	37,999	207,292	33,057	64,855	167,921	472,212	167,473	630,945	22,664
	Establishments with--										
	90% of more specialization...	93	33,604	185,922	29,128	57,073	150,000	395,893	146,898	535,495	20,369
32291	Table, kitchen, art and novelty glassware(primary product class of estab.).....	40	18,161	96,272	15,805	30,229	78,342	208,077	65,019	267,923	7,169
	Establishments with--										
	90% or more specialization....	23	8,990	46,073	7,620	13,992	36,892	89,495	26,061	112,602	2,394
	75-89% specialization.....	8	3,560	18,044	3,207	6,161	14,576	70,240	18,302	86,743	2,185
32292	Lighting and electronic glassware (primary product class of estab.)	40	10,720	61,169	9,438	18,529	50,169	163,315	51,192	213,623	6,599
	Establishments with--										
	90% or more specialization....	25	7,126	41,537	6,257	12,534	34,330	121,335	35,987	156,890	5,146
	75-89% specialization.....	7	1,319	7,343	1,177	2,305	6,030	16,917	5,383	22,201	466
32293	Glass fiber (primary product class of estab.).....	8	5,118	26,850	4,394	9,395	21,433	51,816	37,408	88,264	7,645
	Establishments with--										
	90% or more specialization....	8	5,118	26,850	4,394	9,395	21,433	51,816	37,408	88,264	7,645
32294	Other pressed and blown glassware (primary product class of estab.)	15	3,973	22,882	3,394	6,655	17,863	48,815	13,747	60,836	1,188

## CEMENT AND STRUCTURAL CLAY PRODUCTS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3241—Cement, Hydraulic
- 3251—Brick and Structural Clay Tile
- 3253—Ceramic Wall and Floor Tile
- 3255—Clay Refractories
- 3259—Structural Clay Products, Not Elsewhere Classified

Establishments primarily engaged in manufacturing cement, brick, ceramic tile, clay refractories and other structural clay products included in their census of manufactures reports all of the activities at each establishment including the operation of mines, pits, or quarries at the same site. Selected data for mining and quarrying activities operated in conjunction with the manufacturing plant were reported separately in the 1963 Census of Manufactures by those establishments reporting on "standard forms" and are shown in tables 3 and 9 in this report, as well as in the 1963 reports for the census of mineral industries. "Small" establishments reporting on "short forms" were not required to report separate data for mining or quarrying done in conjunction with manufacturing. The limitations to the statistics resulting from this exclusion of "small" establishments is covered in the table footnotes.

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3241—CEMENT, HYDRAULIC

This industry comprises establishments primarily engaged in manufacturing hydraulic cement, including portland, natural, masonry, and puzzolan cements. For a detailed list of products of industry 3241, refer to table 6A, product codes 3241011 to 3241051.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Cement, Hydraulic, Industry totaled \$1,177 million. This amount included shipments of hydraulic cement, including containers (primary products) valued at \$1,158 million, shipments of other products (secondary products)



valued at \$10 million, and miscellaneous receipts, at \$9 million. Virtually all of the hydraulic cement produced both in 1963 and 1958 was produced by plants classified in this industry.

This industry's shipments of hydraulic cement represented 99 percent of its total product shipments. The industry specialization ratio in 1958 was also 99 percent.

The production index for the primary products of the industry increased to 125 in 1963 from the 1958 level of 113. The unit value index for 1963 was 117 compared to 116 in 1958. Both indexes were computed on a basis of 1954 = 100.

In its annual report, Minerals Yearbook, the U.S. Department of the Interior, Bureau of Mines, publishes more detailed figures on the products listed in table 6A of this report. The variation between Bureau of Mines summary totals and the data appearing in this report are due to (1) inclusion of cost of containers and interplant transfers in Census Bureau figures and (2) differences in the reports submitted to the two agencies by individual companies.

#### 3251—BRICK AND STRUCTURAL CLAY TILE

This industry comprises establishments primarily engaged in manufacturing clay building brick, vitrified paving brick and hollow structural tile. Establishments primarily engaged in manufacturing clay firebrick are classified in industry 3255, Clay Refractories; non-clay firebrick in industry 3297, Nonclay Refractories; sand lime brick in industry 3299, Nonmetallic Minerals, N.E.C.; and glass brick in industry 3229, Pressed and Blown Glass, N.E.C. For a detailed list of products of industry 3251, refer to table 6A, product codes 3251111 to 3251251.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Brick and Structural Tile Industry totaled \$325 million. This amount included shipments of brick and structural clay tile (primary products) valued at \$303 million, shipments of other products (secondary products) valued at \$7 million, and miscellaneous receipts, at \$15 million.

This industry's shipments of brick and structural clay tile represented 98 percent of its total product shipments. The industry specialization ratio in 1958 was 96 percent. Secondary products shipped by this industry in 1963 consisted mainly of structural clay products, n.e.c. (\$5 million).

Shipments of brick and structural tile by this industry represented 98 percent of all shipments of these products (\$308 million) by all industries. In 1958, the coverage ratio was also 98 percent.

The production index for the primary products of the industry increased to 102 in 1963 from the 1958 level of 96. The unit value index for 1963 was 125 compared to 115 in 1958. Both indexes were computed on a basis of 1954 = 100.

Monthly data, including geographic information, are published on the production and shipments of brick (product code 3251111) and glazed brick and structural hollow tile (product codes 3251211, 3251231, and 3251251) in Current Industrial Reports series M32D, Clay Construction Products. The monthly survey is conducted on a sample basis and includes estimates for approximately 200 small establishments not included in the survey. The degree of estimation is shown in the monthly publications.

### 3253—CERAMIC WALL AND FLOOR TILE

This industry comprises establishments primarily engaged in manufacturing ceramic mosaic tile, glazed wall tile, quarry tile, and other types of ceramic wall and floor tile. Establishments primarily engaged in manufacturing hollow structural tile and ceramic and salt glazed facing tile are classified in industry 3251, Brick and Structural Tile; drain tile in industry 3259, Structural Clay Products, N.E.C.; asphalt floor tile in industry 3292, Asbestos Products; rubber tile in industry 3069, Rubber Products, N.E.C.; cork wall and floor tile in industry 2499, Wood Products, N.E.C; and other hard surface floor coverings in industry 3982, Hard Surface Floor Coverings. China and earthenware bathroom accessories (towel racks, soap cups, etc.) are classified in industry 3261, Vitreous Plumbing Fixtures. For a detailed list of products of industry 3253, refer to table 6A, product codes 3253013 to 3253071.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Ceramic Wall and Floor Tile Industry totaled \$165 million. This amount included shipments of ceramic wall and floor tile (primary products) valued at \$143 million, shipments of other products (secondary products) valued at \$7 million, and miscellaneous receipts, at \$15 million.

This industry's shipments of ceramic wall and floor tile represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was 94 percent.

Shipments of ceramic wall and floor tile by this industry represented 99 percent of all shipments of these products (\$143 million) by all industries. In 1958 the coverage ratio was also 99 percent.

The production index for the primary products of the industry increased to 157 in 1963 from the 1958 level of 127. The unit value index for 1963 was 98 compared to 106 in 1958. Both indexes were computed on a basis of 1954 = 100.

Monthly data, including geographic information, are published on the production and shipments of ceramic wall and floor tile in Current Industrial Reports series M32D, Clay Construction Products. Estimates not exceeding 5 percent of total shipments are made for small establishments not included in the monthly survey.

### 3255—CLAY REFRACTORIES

This industry comprises establishments primarily engaged in manufacturing clay firebrick, refractory bonding mortars, and other heat-resisting clay products such as glass-house tank blocks, stoppers, floaters, and rings. Establishments primarily engaged in manufacturing nonclay refractories, as well as all graphite refractories whether of carbon bond or ceramic bond, are classified in industry 3297, Nonclay Refractories. For a detailed list of products of industry 3255, refer to table 6A, product codes 3255011 to 3255094.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Clay Refractories Industry totaled \$192 million. This amount included shipments of clay refractories (primary products) valued at \$168 million, shipments of other products (secondary products) valued at \$16 million, and miscellaneous receipts, at \$8 million.

This industry's shipments of clay refractories represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent. Secondary prod-



ucts shipped by this industry in 1963 consisted mainly of nonclay refractories (\$9 million), and minerals and earths, ground or otherwise treated (\$2 million).

Shipments of clay refractories by this industry represented 93 percent of all shipments of these products (\$181 million) by all industries. In 1958 the coverage ratio was 92 percent. Other industries shipping clay refractories consisted mainly of industry 3297, nonclay refractories \$8 million.

The production index for the primary products of the industry increased to 123 in 1963 from the 1958 level of 94. The unit value index for 1963 was 128 compared to 131 in 1958. Both indexes were computed on a basis of 1954 = 100.

Quarterly data on the shipments of clay refractories are published in Current Industrial Reports series M32C, Refractories. The detailed product information for 1963 as it appears in table 6A of this report was obtained from the 1964 Annual Summary (M32C (64)-5) from this series. Since detailed product statistics are reported quarterly, manufacturers were required to report only total shipments of clay refractories in the census of manufactures. A comparison on the totals as reported in the quarterly survey and the census of manufactures appears in table 6A.

### 3259--STRUCTURAL CLAY PRODUCTS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing clay sewer pipe and kindred products made of clay, and structural clay products, n.e.c., such as architectural terra cotta, roofing tile, stove lining, flue lining, chimney pipes, thimbles and tops, wall coping, segment blocks, drain tile and adobe brick. Establishments primarily engaged in manufacturing concrete sewer pipe are classified in industry 3272, Other Concrete Products; cast iron pipe in industry 3321, Gray Iron Foundries; and plastic pipe in industry 3079, Plastics Products, N.E.C. For a detailed list of products of industry 3259, refer to table 6A, product codes 3259111 to 3259298.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Structural Clay Products, N.E.C., Industry totaled \$160 million. This amount included shipments of structural clay products, n.e.c. (primary products) valued at \$135 million, shipments of other products (secondary products) valued at \$17 million, and miscellaneous receipts, at \$8 million.

This industry's shipments of structural clay products, n.e.c., represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was 97 percent. Secondary products shipped by this industry in 1963 consisted mainly of construction plastics products (\$12 million).

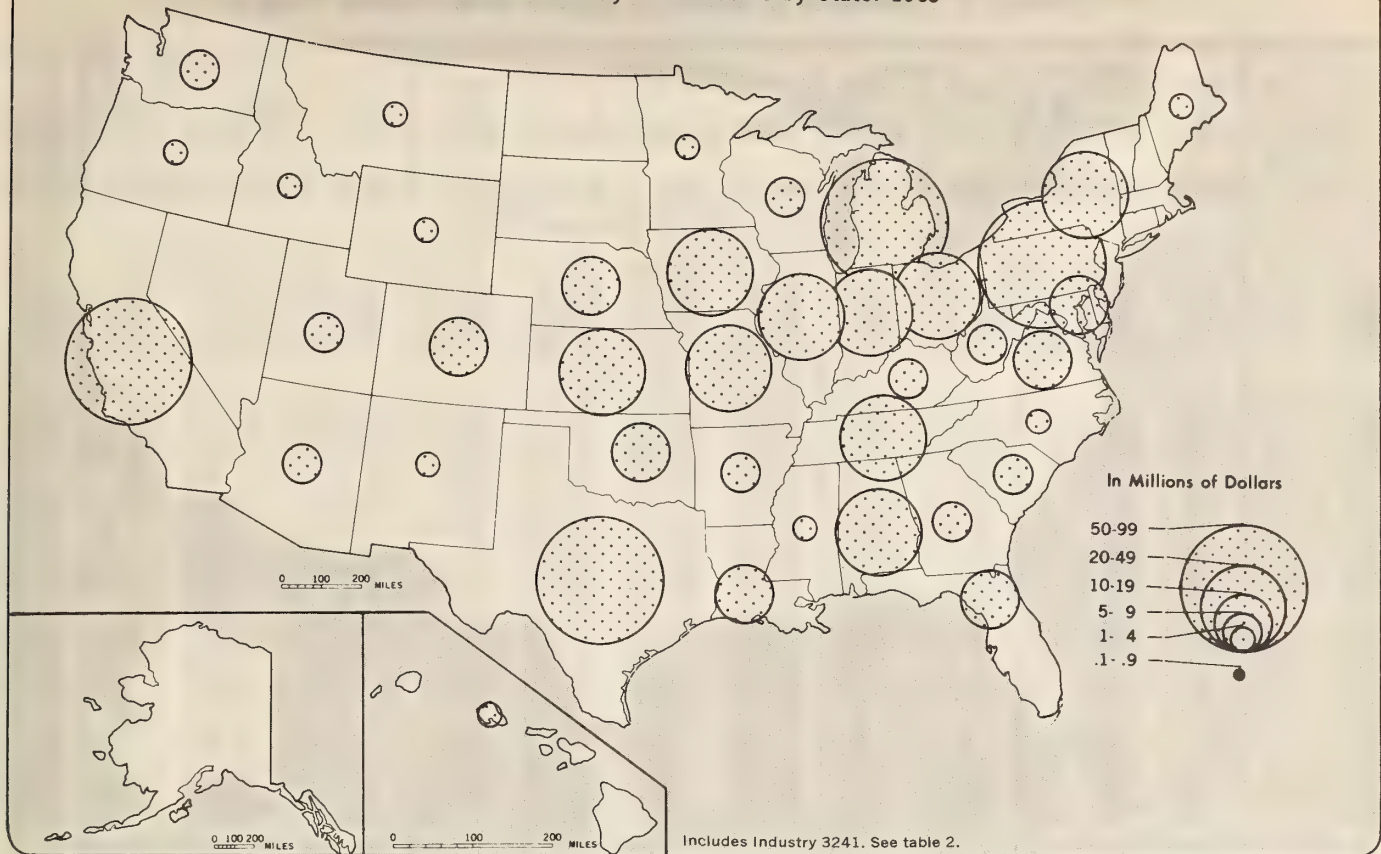
Shipments of structural clay products, n.e.c., by this industry represented 95 percent of all shipments of these products (\$141 million) by all industries. In 1958 the coverage ratio was 94 percent. Other industries shipping structural clay products, n.e.c., consisted mainly of industry 3251, Brick and Structural Tile, \$5 million.

The production index for the primary products of the industry increased slightly to 101 in 1963 from the 1958 level of 100. The unit value index for 1963 was 130 compared to 120 in 1958. Both indexes were computed on a basis of 1954 = 100.

Monthly data, including geographic information, are published on the production and shipments of clay sewer pipe and fittings (product code 3259111) in Current Industrial Reports series M32D, Clay Construction Products.

# CEMENT, HYDRAULIC: SIC 324

## Value Added by Manufacture by State: 1963

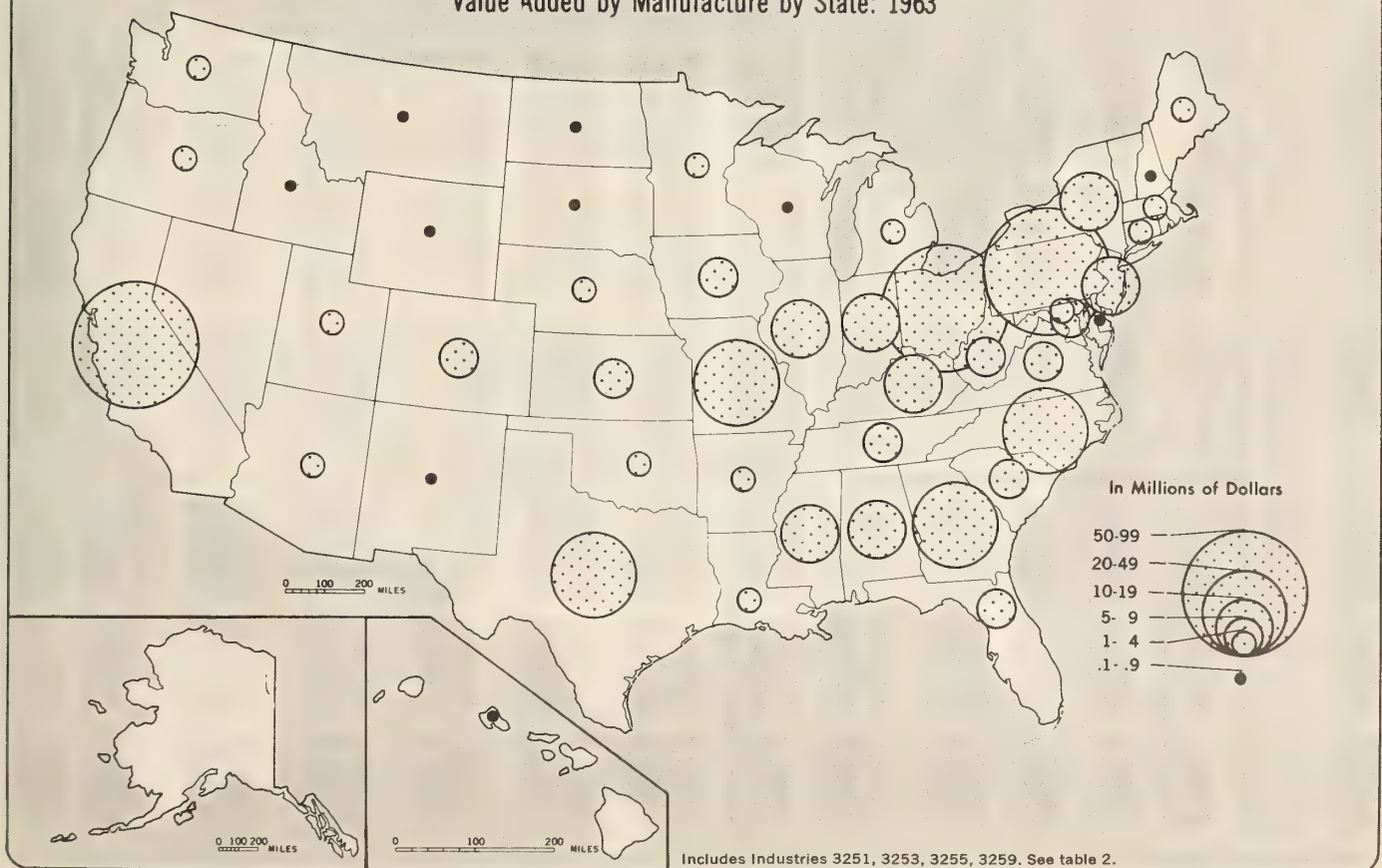


U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

# STRUCTURAL CLAY PRODUCTS: SIC 325

## Value Added by Manufacture by State: 1963



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS



TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Special- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3241.—CEMENT, HYDRAULIC														
1963.....	55	188	179	34,863	227,385	28,719	57,579	173,891	785,681	388,747	1,176,913	120,843	99	100
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	35,520	220,948	29,698	59,072	171,076	771,830	360,394	1,131,071	96,735	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	36,388	218,107	30,533	60,519	170,553	752,877	355,423	1,107,872	100,223	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	39,357	227,919	33,249	66,728	180,198	760,817	366,792	1,112,330	114,350	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	41,129	229,757	35,036	71,213	183,033	815,132	379,453	1,190,995	119,436	(NA)	(NA)
1958.....	62	175	170	41,127	214,221	34,780	69,481	170,156	724,771	354,391	1,073,494	113,095	99	100
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	41,562	203,610	35,868	70,188	161,214	648,439	344,065	968,490	218,188	99	100
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	41,429	195,292	35,809	73,648	157,554	672,436	337,028	997,007	239,888	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	40,774	179,103	35,122	73,406	144,775	597,997	305,274	900,086	139,493	(NA)	(NA)
1954.....	67	162	160	39,769	167,659	34,036	70,839	134,777	525,667	285,388	814,923	73,015	99	100
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	37,785	156,164	31,802	67,514	123,199	464,463	284,155	748,618	68,866	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	39,429	152,178	33,418	70,507	119,685	445,834	273,060	718,894	44,815	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	39,746	141,991	33,706	70,471	111,764	427,251	265,023	692,274	41,769	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	38,205	127,426	32,675	68,677	100,202	391,216	225,362	616,550	50,804	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	35,613	113,823	30,327	64,041	90,838	302,591	211,974	514,565	44,948	(NA)	(NA)
1947.....	73	155	(NA)	35,662	98,626	30,639	66,341	79,861	247,936	160,992	408,928	42,488	100	100
1939.....	(NA)	160	(NA)	28,197	42,583	23,801	(NA)	31,588	124,081	68,530	129,611	(NA)	(NA)	(NA)
1937.....	(NA)	158	(NA)	29,130	40,741	26,426	(NA)	34,070	113,222	69,979	183,201	(NA)	(NA)	(NA)
1935.....	(NA)	153	(NA)	23,311	27,486	20,698	(NA)	20,904	77,328	43,089	120,417	(NA)	(NA)	(NA)
1933.....	(NA)	148	(NA)	(NA)	(NA)	15,829	(NA)	13,870	59,989	26,932	86,921	(NA)	(NA)	(NA)
1931.....	(NA)	164	(NA)	(NA)	(NA)	24,317	(NA)	29,884	92,747	56,098	148,845	(NA)	(NA)	(NA)
1929.....	(NA)	174	(NA)	38,752	62,834	33,368	(NA)	48,849	172,267	95,242	267,509	(NA)	(NA)	(NA)
1927.....	(NA)	161	(NA)	42,878	69,442	36,322	(NA)	53,111	173,553	120,012	293,565	(NA)	(NA)	(NA)
1925.....	(NA)	125	(NA)	45,033	68,658	38,437	(NA)	53,912	186,726	114,169	300,895	(NA)	(NA)	(NA)
1923.....	(NA)	133	(NA)	40,537	60,940	35,091	(NA)	49,708	163,331	100,767	264,098	(NA)	(NA)	(NA)
1921.....	(NA)	125	(NA)	30,891	44,958	26,231	(NA)	34,416	101,267	102,360	203,627	(NA)	(NA)	(NA)
1919.....	(NA)	123	(NA)	30,238	42,691	25,524	(NA)	33,195	95,755	79,510	175,265	(NA)	(NA)	(NA)
1914.....	(NA)	133	(NA)	31,948	24,258	27,916	(NA)	18,192	49,769	51,987	101,756	(NA)	(NA)	(NA)
1909.....	(NA)	135	(NA)	29,494	18,973	26,775	(NA)	15,320	33,861	29,344	63,205	(NA)	(NA)	(NA)
1904.....	(NA)	129	(NA)	18,861	10,672	17,478	(NA)	8,814	17,658	12,215	29,873	(NA)	(NA)	(NA)
INDUSTRY 3251.—BRICK AND STRUCTURAL TILE														
1963 <sup>2</sup> .....	401	512	400	28,620	130,378	24,665	51,237	102,597	216,548	106,012	325,093	19,344	98	98
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	33,104	139,467	28,799	58,940	110,129	237,969	164,826	400,232	15,670	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	33,977	136,154	29,666	59,487	108,252	225,153	150,945	370,490	(19,878)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	34,158	135,412	29,468	59,144	107,315	214,943	151,600	359,666	(13,832)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	34,116	135,916	29,768	61,330	108,467	226,128	119,575	342,547	(19,953)	(NA)	(NA)
1958.....	468	569	430	31,087	122,868	26,955	55,316	97,196	196,890	89,410	286,709	14,023	96	98
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	31,587	121,452	28,008	56,213	97,856	184,668	75,604	253,837	(S)	95	97
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	35,288	135,521	31,670	65,741	110,014	214,868	81,930	284,482	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	33,757	125,327	30,149	65,661	104,058	210,509	77,088	289,133	(NA)	(NA)	(NA)
1954.....	510	610	459	32,426	114,740	28,751	61,048	93,114	184,017	77,404	262,590	16,233	96	98
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	30,269	105,155	26,855	56,996	83,478	161,764	58,444	220,208	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	33,636	108,484	30,536	64,070	88,471	154,278	55,863	210,740	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	35,506	112,520	32,623	69,547	93,718	156,035	68,773	225,407	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	34,729	100,585	31,380	65,525	81,281	164,224	56,616	220,794	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	32,182	84,614	27,939	58,487	68,598	118,032	49,497	167,670	(NA)	(NA)	(NA)
1947.....	574	674	(NA)	29,617	69,399	27,002	58,367	59,876	110,867	37,640	144,497	13,266	95	97
1939.....	(NA)	800	(NA)	32,962	33,877	29,069	(NA)	26,349	55,684	22,469	78,153	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	781	(NA)	(NA)	(NA)	27,742	(NA)	24,685	45,887	20,014	65,901	(NA)	(NA)	(NA)
INDUSTRY 3253.—CERAMIC WALL AND FLOOR TILE														
1963.....	72	90	64	12,795	63,745	10,409	21,002	43,794	110,571	55,083	164,668	9,070	95	99
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,250	62,811	10,702	22,020	44,372	120,222	56,882	173,436	(5,356)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,575	57,595	10,033	20,198	39,440	101,627	50,869	153,678	3,788	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,765	61,311	11,095	22,966	43,852	106,939	52,387	157,600	5,558	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	14,372	63,756	11,659	24,031	47,432	112,618	54,230	163,498	(8,535)	(NA)	(NA)
1958.....	79	90	62	13,068	53,738	10,889	21,768	41,494	92,779	44,095	135,470	3,276	94	99
1958 <sup>3</sup> (old)...	(NA)	86	58	12,482	51,350	10,387	20,747	39,696	88,442	43,178	130,300	3,091	93	99
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,409	47,879	9,437	18,661	36,234	81,653	32,823	112,929	8,839	91	99
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,129	54,020	11,248	22,570	42,357	95,761	37,618	126,518	7,743	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,325	48,452	10,445	21,134	37,781	90,841	33,708	124,449	5,493	(NA)	(NA)
1954.....	41	49	40	11,265	43,488	9,627	19,706	33,718	71,501	26,727	100,025	4,579	91	99
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,411	38,719	8,707	18,123	29,755	60,400	23,357	83,757	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,089	31,257	8,032	16,919	24,926	45,719	20,657	66,429	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,462	31,691	8,507	18,159	25,341	52,881	21,957	74,891	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,008	26,301	8,120	17,121	21,640	46,673	18,837	65,563	(NA)	(NA)	(NA)

See footnotes at end of table.

TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
	INDUSTRY 3253.—CERAMIC WALL AND FLOOR TILE—Continued													
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,712	19,445	5,949	13,025	15,874	32,581	13,358	45,992	(NA)	(NA)	(NA)
1947.....	34	37	31	6,828	16,335	6,250	13,088	13,774	31,238	10,684	40,966	2,277	97	95
1939.....	(NA)	49	(NA)	6,434	7,523	5,681	(NA)	5,931	12,517	5,142	17,659	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	37	(NA)	(NA)	(NA)	6,288	(NA)	6,531	11,762	5,324	17,086	(NA)	(NA)	(NA)
	INDUSTRY 3255.—CLAY REFRACTORIES													
1963.....	80	150	109	11,431	64,822	9,402	18,139	49,648	118,248	74,476	192,230	7,936	91	33
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,019	67,053	10,324	18,057	49,324	114,578	73,995	189,274	8,100	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,871	68,471	11,149	19,449	51,495	113,106	78,160	189,738	6,517	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,884	70,988	12,128	21,232	54,481	118,790	75,546	193,084	8,548	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,611	69,867	11,825	21,237	52,958	123,013	72,499	193,169	9,902	(NA)	(NA)
1958.....	104	167	117	12,394	59,816	10,110	18,581	44,920	104,898	56,624	163,478	10,804	93	92
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,232	84,675	14,783	27,788	64,891	147,798	94,941	237,493	(S)	88	94
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,810	80,913	15,436	29,199	62,916	147,147	90,125	232,780	15,306	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,612	70,064	14,397	27,845	54,722	128,749	73,136	198,345	8,934	(NA)	(NA)
1954.....	113	177	133	14,463	55,604	12,204	22,783	43,006	88,483	49,956	139,290	5,702	92	95
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,644	58,502	13,638	27,001	48,595	94,904	52,410	147,314	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,534	62,239	15,412	30,709	51,553	106,755	53,620	160,290	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,018	62,877	15,852	32,976	52,356	114,362	54,308	168,585	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,035	47,634	13,989	27,297	39,156	87,448	39,568	126,825	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,019	44,671	14,062	25,806	36,393	69,865	36,467	106,141	(NA)	(NA)	(NA)
1947.....	108	168	(NA)	17,963	47,048	15,937	31,830	38,663	75,982	35,259	109,260	(NA)	93	94
1939.....	(NA)	165	(NA)	13,655	15,404	12,211	(NA)	12,324	28,978	13,213	42,191	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	163	(NA)	(NA)	(NA)	15,449	(NA)	16,409	34,827	17,823	52,650	(NA)	(NA)	(NA)
	INDUSTRY 3259.—STRUCTURAL CLAY PRODUCTS, N.E.C.													
1963 <sup>1</sup> .....	126	164	108	12,188	61,977	10,364	21,142	48,727	108,442	53,382	159,724	5,842	89	95
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,235	63,028	10,523	20,929	49,630	104,944	47,256	153,868	(7,382)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,058	62,901	11,286	22,909	49,804	107,411	45,240	150,080	8,229	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,443	62,224	11,585	23,042	49,912	108,752	45,474	149,739	11,448	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,875	62,172	11,745	23,427	48,905	107,689	43,917	152,634	6,755	(NA)	(NA)
1958.....	(NA)	192	117	13,756	56,454	11,795	22,185	44,582	95,881	38,190	134,928	6,759	97	94
1958 <sup>4</sup> (old)...	(NA)	195	120	14,112	57,800	12,096	22,791	45,508	98,526	38,611	137,810	6,565	(NA)	(NA)
1954.....	(NA)	217	129	14,659	53,333	12,982	26,225	44,000	83,648	27,645	110,330	5,046	89	84
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	14,375	42,039	12,774	24,818	34,986	72,697	20,045	92,969	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	14,874	41,487	13,408	26,638	34,870	59,082	21,931	80,972	(NA)	(NA)	(NA)
1947.....	(NA)	230	127	14,850	36,371	13,487	27,945	31,706	62,233	18,459	76,668	(NA)	83	83
1939.....	(NA)	192	(NA)	10,942	19,779	15,589	(NA)	15,732	20,941	6,805	51,641	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	201	(NA)	(NA)	(NA)	10,105	(NA)	10,220	19,810	7,815	27,625	(NA)	(NA)	(NA)
Total for clay products (other than pottery) and nonclay re- fractories: <sup>5</sup>														
1937.....	(NA)	1,238	(NA)	70,460	75,330	65,226	(NA)	64,175	128,206	63,513	191,719	(NA)	(NA)	(NA)
1935.....	(NA)	1,074	(NA)	49,296	44,000	44,583	(NA)	34,603	73,114	38,083	111,197	(NA)	(NA)	(NA)
1933.....	(NA)	928	(NA)	34,962	23,535	31,944	(NA)	18,967	44,609	19,994	64,603	(NA)	(NA)	(NA)
1931.....	(NA)	1,264	(NA)	(NA)	(NA)	51,128	(NA)	44,368	90,367	36,969	127,336	(NA)	(NA)	(NA)
1929.....	(NA)	1,760	(NA)	101,938	128,989	93,657	(NA)	107,348	215,145	82,734	297,879	(NA)	(NA)	(NA)
1927.....	(NA)	1,857	(NA)	109,743	144,550	101,230	(NA)	122,311	221,248	100,642	321,890	(NA)	(NA)	(NA)
1925.....	(NA)	1,950	(NA)	111,662	148,914	103,061	(NA)	127,508	235,054	100,768	335,822	(NA)	(NA)	(NA)
1923.....	(NA)	1,996	(NA)	112,504	146,346	103,239	(NA)	124,400	232,340	104,544	336,884	(NA)	(NA)	(NA)
1921.....	(NA)	1,898	(NA)	76,247	90,915	69,171	(NA)	74,222	127,196	69,103	196,299	(NA)	(NA)	(NA)
1919.....	(NA)	2,436	(NA)	85,887	95,545	77,763	(NA)	79,179	143,996	69,721	213,717	(NA)	(NA)	(NA)
1914.....	(NA)	3,249	(NA)	108,407	65,769	100,484	(NA)	55,079	93,815	43,993	137,808	(NA)	(NA)	(NA)

Footnotes on next page.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Footnotes for Table 1-32B

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>"Brick and Structural Tile," "Ceramic Wall and Floor Tile," "Sewer Pipe," "Clay Refractories" and "Structural Clay Products, N.E.C." together with "Nonclay Refractories," formerly constituted a single industry classification, "Clay Products (other than pottery) and Nonclay Refractories," figures for which are shown in this table for the period 1914-1937.

<sup>3</sup>A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification. Figures for 1957 and earlier years are on the basis of the old SIC definition of the industry. Data for 1958 was retabulated to provide data comparable to that shown for 1957 and earlier years. The details of these revisions are described in Volume II, Industry Statistics, 1958 Census of Manufactures.

<sup>4</sup>The 1957 Standard Industrial Classification combined in this industry, industry 3254, Sewer Pipe and industry 3259, Structural Clay Products, N.E.C., which were separate in the 1945 Standard Industrial Classification. The data for 1957 and earlier years for these two industries have been combined to provide comparable data. The details of the revisions are described in Volume II, Industry Statistics, 1958 Census of Manufactures.

<sup>5</sup>Includes data for establishments engaged primarily in the manufacture of nonclay refractories. For 1937 the statistics included for these establishments are as follows: Number of establishments - 40; All employees, total - 5,990; Payroll - \$7,218 thousand; Production workers, total - 5,641; Production workers, wages - \$6,331 thousand; Value added by manufacture - \$15,919 thousand; Cost of materials - \$12,538 thousand; Value of shipments - \$28,457 thousand.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3241.—CEMENT, HYDRAULIC													
Total.....	188	179	34,863	227,385	28,719	57,579	173,891	785,681	388,747	1,176,913	120,843	41,127	724,771
Northeast.....	37	36	7,029	46,870	5,918	11,763	36,711	123,986	73,064	198,370	11,393	9,214	141,244
Pennsylvania.....	23	23	4,784	31,301	4,024	7,846	24,415	84,039	46,684	130,911	8,998	6,455	101,644
East North Central.....	31	28	6,793	45,888	5,573	11,244	34,750	163,368	74,562	240,972	19,112	9,063	152,958
Ohio.....	9	9	1,808	12,082	1,488	2,901	8,728	37,298	16,670	54,325	6,588	2,362	36,817
Indiana.....	5	5	1,641	10,129	1,299	2,485	7,423	35,462	18,114	54,732	1,470	2,514	37,473
Illinois.....	5	5	1,062	6,841	957	1,897	5,914	28,151	8,912	37,232	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Michigan.....	9	7	2,026	15,134	1,617	3,504	11,340	55,506	25,460	82,716	2,218	2,620	49,056
Wisconsin.....	3	2	256	1,702	212	457	1,345	6,951	5,406	11,967	(D)	( <sup>2</sup> )	( <sup>2</sup> )
West North Central.....	20	20	4,306	26,576	3,688	7,092	21,196	100,085	37,484	137,699	6,223	4,996	99,197
Iowa.....	5	5	1,270	8,475	1,110	2,284	7,027	32,044	13,625	45,650	3,543	1,423	29,561
Missouri.....	5	5	1,265	7,498	1,071	1,922	5,883	31,395	11,190	43,103	75	1,504	30,293
Kansas.....	7	7	1,146	6,750	956	1,831	5,094	20,930	6,500	27,434	604	1,307	24,489
South Atlantic.....	18	17	3,121	19,089	2,672	5,365	15,280	70,073	37,900	107,016	26,127	3,198	55,012
Maryland.....	3	3	593	3,888	544	1,108	3,399	14,659	6,916	21,601	431	498	10,325
Virginia.....	4	4	801	4,560	680	1,281	3,617	15,207	6,477	21,702	434	( <sup>2</sup> )	( <sup>2</sup> )
Georgia.....	3	3	291	2,080	224	478	1,351	8,302	4,228	12,141	(D)	( <sup>2</sup> )	( <sup>2</sup> )
East South Central.....	18	18	2,700	17,230	2,174	4,469	12,957	63,444	34,582	97,862	4,663	3,144	56,277
Tennessee.....	6	6	889	5,726	733	1,522	4,412	22,875	8,893	31,720	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Alabama.....	9	9	1,266	8,157	1,007	2,089	6,023	30,304	19,006	49,282	723	1,607	30,619
West South Central.....	28	25	4,002	24,169	3,090	6,399	16,931	109,309	42,577	150,471	25,423	4,189	88,539
Oklahoma.....	5	4	446	2,974	321	693	1,977	16,823	5,235	22,036	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	18	16	2,613	15,481	2,077	4,287	11,025	69,894	26,648	95,410	16,965	2,689	62,100
Mountain.....	11	11	1,476	9,830	1,247	2,488	7,877	43,528	17,221	60,105	13,671	1,527	32,827
Pacific.....	25	24	5,436	37,733	4,357	8,759	28,189	111,888	71,357	184,418	14,244	5,796	98,720
Washington.....	6	6	563	3,759	455	864	2,902	9,928	6,930	17,032	420	( <sup>2</sup> )	( <sup>2</sup> )
California.....	14	13	4,345	30,373	3,470	7,025	22,568	93,096	55,719	149,237	13,509	4,742	86,574
INDUSTRY 3251.—BRICK AND STRUCTURAL TILE													
Total.....	512	400	28,620	130,378	24,665	51,237	102,597	216,548	106,012	325,093	19,344	31,087	196,890
New England.....	23	12	616	2,746	548	1,064	2,340	4,519	3,701	8,247	262	730	4,179
New Hampshire.....	4	3	136	574	121	245	493	733	818	1,476	34	( <sup>2</sup> )	( <sup>2</sup> )
Connecticut.....	8	5	256	1,358	231	485	1,214	2,318	2,154	4,611	129	354	2,222
Middle Atlantic.....	61	50	3,242	17,906	2,829	5,941	14,787	29,623	12,643	42,720	1,851	4,600	33,798
New York.....	15	9	723	4,415	664	1,456	3,839	6,344	3,232	9,528	474	( <sup>2</sup> )	( <sup>2</sup> )
New Jersey.....	7	7	400	2,307	343	746	1,827	4,069	1,487	5,547	351	( <sup>2</sup> )	( <sup>2</sup> )
Pennsylvania.....	39	34	2,119	11,184	1,822	3,739	9,121	19,210	7,924	27,645	1,026	2,815	21,595
East North Central.....	94	77	5,994	31,548	5,213	10,627	25,762	48,429	23,262	71,643	3,329	7,666	53,907
Ohio.....	45	43	3,327	17,689	2,883	5,767	14,197	27,881	13,318	41,307	1,945	4,066	31,326
Indiana.....	20	15	1,303	6,655	1,138	2,448	5,633	9,111	5,114	14,249	883	1,651	9,281
Illinois.....	21	18	1,223	6,469	1,067	2,132	5,311	10,454	4,437	14,733	464	1,669	12,291
West North Central.....	38	31	1,546	7,116	1,319	2,811	5,415	11,914	7,255	19,534	2,396	1,634	11,216
Iowa.....	11	10	445	1,819	363	721	1,260	2,987	3,151	6,422	928	644	4,646
Missouri.....	9	7	317	1,546	289	625	1,289	3,114	1,492	4,617	781	( <sup>2</sup> )	( <sup>2</sup> )
Nebraska.....	4	3	175	770	148	327	571	1,392	544	1,938	104	123	584
Kansas.....	8	7	372	1,829	323	719	1,418	2,823	1,036	4,017	387	400	2,652
South Atlantic.....	89	77	6,766	27,246	5,772	12,174	20,648	50,772	22,661	74,133	3,814	5,775	32,450
Maryland.....	10	8	529	2,288	462	994	1,828	4,474	1,613	6,199	203	525	3,963
Virginia.....	13	12	805	3,241	721	1,530	2,634	7,644	2,812	10,658	453	740	4,360
West Virginia.....	7	5	367	1,542	320	625	1,268	1,979	1,145	3,103	78	306	1,596
North Carolina.....	29	27	2,053	8,692	1,682	3,743	6,314	16,769	7,856	24,555	1,282	1,721	10,950
Georgia.....	9	8	1,633	6,147	1,374	2,857	4,458	10,960	4,235	15,462	603	1,487	6,923
East South Central.....	55	45	3,039	11,849	2,683	5,575	9,476	24,876	10,988	36,580	2,767	3,055	17,362
Kentucky.....	9	7	353	1,437	312	682	1,133	2,599	1,570	4,203	848	360	1,682
Mississippi.....	18	15	803	2,926	673	1,445	2,139	6,139	3,125	9,361	992	683	3,881
West South Central.....	81	62	4,611	16,893	4,033	8,620	13,316	23,679	11,886	36,214	3,288	4,570	23,230
Arkansas.....	8	8	743	2,871	657	1,340	2,276	2,905	2,290	5,653	248	683	4,157
Louisiana.....	11	7	371	1,263	335	691	1,058	1,436	1,035	2,537	182	446	1,943
Oklahoma.....	12	10	425	1,523	368	750	1,183	1,837	1,081	2,894	525	517	3,053
Texas.....	50	37	3,072	11,236	2,673	5,839	8,799	17,501	7,480	25,130	2,333	2,924	14,077

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963										1958		
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3251.—BRICK AND STRUCTURAL TILE--Continued													
Mountain.....	26	16	1,512	8,311	1,208	2,367	5,788	11,400	7,891	18,775	1,052	1,672	11,243
Colorado.....	7	6	819	4,535	650	1,259	2,977	6,331	4,146	10,169	570	812	6,142
Arizona.....	7	3	169	844	138	270	660	1,256	672	1,973	88	( <sup>2</sup> )	( <sup>2</sup> )
Pacific.....	45	30	1,294	6,763	1,060	2,058	5,065	11,336	5,725	17,247	587	1,385	9,505
Oregon.....	7	2	108	607	87	166	461	767	516	1,240	59	( <sup>2</sup> )	( <sup>2</sup> )
California.....	30	22	961	5,103	786	1,511	3,823	8,357	4,192	12,795	323	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3253.—CERAMIC WALL AND FLOOR TILE													
Total.....	90	64	12,795	63,745	10,409	21,002	43,794	110,571	55,083	164,668	9,070	13,068	92,779
Northeast.....	19	12	2,862	15,284	2,353	4,866	10,939	26,682	11,692	38,345	1,243	2,799	22,916
North Central.....	18	13	3,920	20,218	3,257	6,329	13,668	33,091	13,768	45,957	1,052	4,655	27,554
Ohio.....	12	10	3,429	18,251	2,855	5,485	12,218	30,147	12,266	41,497	976	3,998	23,874
South.....	27	23	3,561	14,584	2,949	6,125	10,327	26,748	19,115	46,102	5,348	3,204	21,197
Florida.....	3	3	625	2,409	524	1,108	1,702	5,431	3,171	8,388	(D)	370	2,686
Texas.....	10	10	1,250	4,770	1,003	2,025	2,876	6,995	8,034	15,327	366	1,204	7,727
West.....	26	16	2,452	13,659	1,850	3,682	8,860	24,050	10,508	34,264	1,427	2,410	21,112
California.....	21	16	2,406	13,456	1,813	3,605	8,709	23,797	10,316	33,650	1,420	2,300	20,477
INDUSTRY 3255.—CLAY REFRACTORIES													
Total.....	150	109	11,431	64,822	9,402	18,139	49,648	118,248	74,476	192,230	7,936	12,394	104,898
Northeast.....	49	29	3,108	17,996	2,595	4,919	14,294	31,541	20,401	51,631	2,634	3,493	26,695
Pennsylvania.....	43	35	2,916	16,997	2,437	4,614	13,534	29,777	19,628	49,163	2,583	3,297	24,603
North Central.....	58	43	5,617	32,148	4,492	8,697	23,670	59,202	36,033	94,400	2,740	5,811	53,189
Ohio.....	36	28	2,068	10,631	1,788	3,403	8,695	19,316	10,232	29,175	652	2,033	14,697
South Atlantic.....	13	9	1,300	7,090	1,118	2,168	5,506	12,716	8,062	20,844	1,393	1,262	9,281
Maryland.....	4	3	245	1,576	211	402	1,156	2,210	2,469	4,884	155	( <sup>2</sup> )	( <sup>2</sup> )
East South Central.....	10	8	748	4,165	678	1,316	3,702	6,635	5,336	12,387	340	935	7,119
Kentucky.....	6	5	539	2,995	499	964	2,750	4,653	3,882	8,761	286	625	4,614
Alabama.....	4	3	209	1,170	179	352	952	1,982	1,454	3,626	54	310	2,505
West South Central.....	4	3	183	699	158	310	538	1,726	668	2,370	55	238	1,606
Texas.....	4	3	183	699	158	310	538	1,726	668	2,370	55	( <sup>2</sup> )	( <sup>2</sup> )
West.....	16	7	475	2,724	361	729	1,938	6,428	3,976	10,598	774	655	7,008
California.....	10	4	205	1,206	164	329	917	3,619	2,410	6,192	624	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3259.—STRUCTURAL CLAY PRODUCTS, N.E.C.													
Total.....	164	108	12,188	61,977	10,364	21,142	48,727	108,442	53,382	159,724	5,842	13,756	95,881
Northeast.....	15	12	1,077	5,492	963	1,951	4,711	8,713	4,018	12,704	308	1,308	8,837
East North Central.....	83	54	5,326	27,542	4,538	8,724	21,658	37,535	21,816	58,609	1,607	6,834	44,058
Ohio.....	46	29	3,294	16,454	2,803	5,168	12,806	21,169	12,866	34,163	835	4,812	29,479
Illinois.....	12	10	636	3,304	550	1,058	2,660	4,841	2,694	7,329	163	( <sup>2</sup> )	( <sup>2</sup> )
Michigan.....	5	3	311	2,027	263	595	1,472	3,272	1,703	4,828	162	305	3,224
West North Central.....	16	13	1,512	8,058	1,235	2,727	6,117	14,007	6,873	21,541	984	994	7,584
South.....	23	17	2,503	10,581	2,116	4,480	7,710	23,524	10,498	32,652	1,330	2,846	16,916
West.....	27	12	1,770	10,304	1,512	3,260	8,531	24,663	10,177	34,218	1,613	1,774	18,486
California.....	15	11	1,673	9,795	1,432	3,093	8,141	23,933	9,804	33,038	1,439	1,565	17,269

Footnotes on next page.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Footnotes for Table 2-32B

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.e.c. Not elsewhere classified.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.  
SIC 3241, Cement, Hydraulic: New England—Maine, 1 (100-249); Connecticut, 1 (1-19); Middle Atlantic—New York, 12 (1,000-2,499); West North Central—Minnesota, 1 (100-249); Nebraska, 2 (250-499); South Atlantic—Virginia, 4 (801); West Virginia, 1 (250-499); North Carolina, 1 (20-99); South Carolina, 1 (100-249); Florida, 5 (821); East South Central—Kentucky, 1 (250-499); Mississippi, 2 (100-249); West South Central—Arkansas, 2 (250-499); Louisiana, 3 (500-999); Mountain—Montana, 2 (100-249); Idaho, 1 (20-99); Wyoming, 1 (100-249); Colorado, 2 (250-499); New Mexico, 1 (20-99); Arizona, 2 (250-499); Utah, 2 (100-249); Pacific—Oregon, 3 (250-499); Hawaii, 2 (100-249).

SIC 3251, Brick and Structural Tile: New England—Maine, 7 (100-249); Massachusetts, 4 (100-249); East North Central—Michigan, 3 (20-99); Wisconsin, 5 (20-99); West North Central—Minnesota, 3 (100-249); North Dakota, 2 (20-99); South Dakota, 1 (20-99); South Atlantic—Delaware, 1 (20-99); District of Columbia, 2 (100-249); South Carolina, 14 (1,000-2,499); Florida, 4 (20-99); East South Central—Tennessee, 10 (500-999); Alabama, 18 (1,000-2,499); Mountain—Montana, 2 (20-99); Idaho, 2 (20-99); New Mexico, 1 (20-99); Utah, 6 (250-499); Nevada, 1 (1-19); Pacific—Washington, 7 (100-249); Hawaii, 1 (20-99).

SIC 3253, Ceramic Wall and Floor Tile: New England—Massachusetts, 2 (250-499); Middle Atlantic—New York, 7 (467); New Jersey, 4 (500-999); Pennsylvania, 6 (1,504); East North Central—Indiana, 1 (100-249); Illinois, 2 (100-249); Michigan, 1 (1-19); West North Central—Minnesota, 1 (1-19); Kansas, 1 (100-249); South Atlantic—Virginia, 1 (1-19); West Virginia, 1 (250-499); North Carolina, 1 (100-249); South Carolina, 1 (1-19); Georgia, 1 (1-19); East South Central—Kentucky, 2 (100-249); Tennessee, 2 (20-99); Alabama, 1 (250-499); Mississippi, 3 (250-499); West South Central—Arkansas, 1 (100-249); Mountain—Colorado, 1 (1-19); Arizona, 2 (1-19); Utah, 1 (1-19); Pacific—Oregon, 1 (1-19).

SIC 3255, Clay Refractories: New England—Massachusetts, 1 (20-99); Connecticut, 1 (1-19); Middle Atlantic—New Jersey, 4 (100-249); East North Central—Indiana, 1 (20-99); Illinois, 5 (100-249); Michigan, 2 (1-19); Wisconsin, 1 (1-19); Missouri, 13 (2,500-4,999); South Atlantic—Delaware, 1 (1-19); West Virginia, 3 (250-499); Georgia, 3 (639); Florida, 2 (1-19); Mountain—Idaho, 1 (1-19); Colorado, 2 (100-249); Utah, 1 (1-19); Pacific—Washington, 2 (20-99).

SIC 3259, Structural Clay Products, N.E.C.: Middle Atlantic—New Jersey, 4 (327); Pennsylvania, 11 (750); East North Central—Indiana, 10 (1,000-2,499); Wisconsin, 2 (1-19); West North Central—Minnesota, 1 (20-99); Iowa, 10 (650); Missouri, 3 (250-499); North Dakota, 1 (20-99); Kansas, 1 (250-499); South Atlantic—District of Columbia, 1 (1-19); Virginia, 1 (20-99); North Carolina, 3 (250-499); South Carolina, 1 (100-249); Georgia, 2 (500-999); Florida, 6 (164); East South Central—Kentucky, 2 (250-499); Alabama, 1 (20-99); Mississippi, 1 (100-249); West South Central—Texas, 5 (500-999); Mountain—Wyoming, 1 (20-99); Colorado, 1 (1-19); Arizona, 3 (20-99); Pacific—Oregon, 7 (20-99).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.



TABLE 3. Detailed Statistics: 1963

Item	Cement, hydraulic (SIC 3241)			Brick and structural tile (SIC 3251)			Ceramic wall and floor tile (SIC 3253) all establishments
	Total	Subindustry		Total	Subindustry		
		Establishments with mining or quarrying activity <sup>1</sup>	Establishments without mining or quarrying activity <sup>1</sup>		Establishments with mining or quarrying activity <sup>1</sup>	Establishments without mining or quarrying activity <sup>1</sup>	
Primary product specialization ratio <sup>2</sup> .....	.99	(NA)	(NA)	.98	(NA)	(NA)	.95
Coverage ratio <sup>3</sup> .....	1.00	(NA)	(NA)	.98	(NA)	(NA)	.99
Establishments, total.....number..	188	149	39	512	315	197	90
With 1 to 19 employees.....do....	9	-	9	112	16	96	26
With 20 to 99 employees.....do....	30	19	11	342	256	86	24
With 100 employees or more.....do....	149	130	19	58	43	15	40
Proprietors and working partners.....do....	1	(NA)	(NA)	107	(NA)	(NA)	20
All employees (average for the year).....do....	34,863	30,134	4,729	28,620	21,767	6,853	12,795
Payroll (all employees), total for year.....\$1,000..	227,385	195,931	31,454	130,378	100,400	29,978	63,745
Production workers:							
Average for the year.....number..	28,719	24,902	3,817	24,615	18,821	5,844	10,409
March.....do....	26,649	23,145	3,504	22,157	17,247	4,910	10,221
May.....do....	29,663	25,657	4,006	25,333	19,336	5,997	10,443
August.....do....	30,510	26,562	3,948	26,308	19,843	6,465	10,616
November.....do....	27,997	24,192	3,805	24,866	18,851	6,015	10,372
Man-hours.....1,000..	57,579	49,932	7,647	51,237	39,100	12,137	21,002
January-March.....do....	12,833	11,265	1,568	10,980	8,531	2,449	5,159
April-June.....do....	15,046	12,983	2,063	13,214	10,057	3,157	5,466
July-September.....do....	15,315	13,222	2,093	14,011	10,585	3,426	5,277
October-December.....do....	14,385	12,462	1,923	13,032	9,927	3,105	5,100
Wages.....\$1,000..	173,891	150,474	23,417	102,597	79,136	23,461	43,794
Cost of materials, etc., total.....do....	388,747	318,399	70,348	106,012	76,320	29,692	55,083
Materials, parts, containers, and supplies consumed.....do....	195,819	150,824	44,995	50,040	33,937	16,103	39,351
Cost of resales.....do....	6,993	5,684	1,309	10,807	7,414	3,393	10,331
Fuels consumed.....do....	123,611	108,414	15,197	34,717	26,963	7,754	3,801
Electric energy:							
Purchased:							
Quantity.....million kw.-hrs..	6,520	5,663	857	582	457	125	113
Cost.....\$1,000..	59,533	51,221	8,312	8,307	6,499	1,808	1,524
Generated less sold.....million kw.-hrs..	1,445	1,287	158	7	(D)	(D)	(D)
Contract work.....\$1,000..	2,791	2,256	535	2,138	1,507	631	76
Value of shipments (including resales), total.....do....	1,176,913	1,009,795	167,118	325,093	245,182	79,911	164,668
Value of resales.....do....	8,285	6,406	1,879	13,096	8,747	4,349	14,503
Value added by manufacture, adjusted.....do....	785,681	690,307	95,374	216,548	166,471	50,077	110,571
Manufacturers' inventories:							
Beginning of year, total.....do....	181,942	143,735	38,207	49,812	37,708	12,104	31,881
Finished products.....do....	72,135	57,782	14,353	40,547	30,859	9,688	21,429
Work-in-process.....do....	25,167	19,722	5,445	3,437	2,423	1,014	3,842
Materials, supplies, fuel, etc.....do....	84,640	66,231	18,409	5,828	4,426	1,402	6,610
End of year, total.....do....	180,625	143,887	36,738	48,007	36,009	11,998	33,250
Finished products.....do....	69,648	55,760	13,888	37,948	28,319	9,629	22,449
Work-in-process.....do....	25,169	20,655	4,514	3,503	2,572	931	3,808
Materials, supplies, fuel, etc.....do....	85,808	67,472	18,336	6,556	5,118	1,438	6,993
Expenditures for plant and equipment, total.....do....	121,369	95,795	25,574	19,933	14,641	5,292	9,182
New, total.....do....	120,843	95,571	25,272	19,344	14,214	5,130	9,070
New structures and additions to plant.....do....	36,192	26,072	10,120	6,434	4,379	2,055	3,343
New machinery and equipment.....do....	84,651	69,499	15,152	12,910	9,835	3,075	5,722
Used plant and equipment.....do....	526	224	302	589	427	162	112
Selected operating ratios:							
Payroll/Total employment.....	6,522	6,502	6,651	4,510	4,552	4,374	4,982
Production workers/Total employment.....	.82	.83	.81	.86	.87	.85	.81
Man-hours/Production workers.....	2,005	2,005	2,002	2,055	2,049	2,077	2,018
Production worker wages/Man-hours.....	3.02	3.01	3.06	2.00	2.02	1.93	2.09
Cost of materials and payrolls/Total value of shipments.....	.52	.50	.61	.73	.72	.75	.72
Cost of materials/Total value of shipments.....	.33	.32	.42	.33	.31	.37	.33
Adjusted value added/Total employment.....	22,536	22,908	20,168	7,514	7,578	7,307	8,642
Salaries and wages/Adjusted value added.....	.28	.36	.33	.60	.60	.60	.58

See footnotes at end of table.

TABLE 3. Detailed Statistics: 1963—Continued

Item	Clay refractories (SIC 3255)			Structural clay products, n.e.c. (SIC 3259)		
	Total	Subindustry		Total	Subindustry	
		Establishments with mining or quarrying activity <sup>1</sup>	Establishments without mining or quarrying activity <sup>1</sup>		Establishments with mining or quarrying activity <sup>1</sup>	Establishments without mining or quarrying activity <sup>1</sup>
Primary product specialization ratio <sup>2</sup> .....	.91	(NA)	(NA)	.89	(NA)	(NA)
Coverage ratio <sup>3</sup> .....	.93	(NA)	(NA)	.95	(NA)	(NA)
Establishments, total.....number..	150	(NA)	(NA)	164	76	88
With 1 to 19 employees.....do....	41	1	40	56	3	48
With 20 to 99 employees.....do....	70	11	59	60	40	20
With 100 employees or more.....do....	39	9	30	48	28	20
Proprietors and working partners.....do....	14	(NA)	(NA)	47	(NA)	(NA)
All employees (average for the year).....do....	11,431	2,535	8,896	12,188	7,519	4,669
Payroll (all employees), total for year.....\$1,000..	64,822	15,208	49,614	61,977	38,121	23,856
Production workers:						
Average for the year.....number..	9,402	2,101	7,301	10,364	6,304	4,060
March.....do....	9,155	2,046	7,109	8,941	5,612	3,329
May.....do....	9,538	2,142	7,396	10,548	6,485	4,063
August.....do....	9,590	2,157	7,433	11,091	6,678	4,413
November.....do....	9,304	2,058	7,246	10,879	6,442	4,437
Man-hours.....1,000..	18,139	4,135	14,004	21,142	13,055	8,087
January-March.....do....	4,345	999	3,346	4,367	2,780	1,587
April-June.....do....	4,657	1,083	3,574	5,433	3,352	2,081
July-September.....do....	4,566	1,048	3,518	5,810	3,559	2,251
October-December.....do....	4,571	1,005	3,566	5,532	3,364	2,168
Wages.....\$1,000..	49,648	11,699	37,949	48,727	29,419	19,308
Cost of materials, etc., total.....do....	74,476	16,623	57,853	53,382	30,492	22,890
Materials, parts, containers, and supplies consumed.....do....	54,210	10,974	43,236	30,399	16,238	14,161
Cost of resales.....do....	5,322	1,278	4,044	5,527	3,412	2,115
Fuels consumed.....do....	11,644	3,311	8,333	13,973	8,617	5,356
Electric energy:						
Purchased:						
Quantity.....million kw.-hrs..	216	54	161	170	108	62
Cost.....\$1,000..	2,992	763	2,229	2,532	1,633	899
Generated less sold.....million kw.-hrs..	(D)	-	(D)	(D)	(D)	-
Contract work.....\$1,000..	308	297	11	947	592	355
Value of shipments (including resales), total.....do....	192,230	45,498	146,732	159,724	96,849	62,875
Value of resales.....do....	7,055	1,438	5,617	6,364	3,737	2,627
Value added by manufacture, adjusted.....do....	118,248	29,349	88,899	108,442	67,413	41,029
Manufacturers' inventories:						
Beginning of year, total.....do....	53,941	13,895	40,046	25,119	15,076	10,043
Finished products.....do....	29,487	7,693	21,794	19,141	11,490	7,651
Work-in-process.....do....	2,901	746	2,155	2,196	1,175	1,021
Materials, supplies, fuel, etc.....do....	21,553	5,456	16,097	3,782	2,411	1,371
End of year, total.....do....	54,001	14,125	39,876	27,449	16,124	11,325
Finished products.....do....	30,322	8,103	22,219	21,223	12,527	8,696
Work-in-process.....do....	2,560	810	1,750	2,214	1,194	1,020
Materials, supplies, fuel, etc.....do....	21,119	5,212	15,907	4,012	2,403	1,609
Expenditures for plant and equipment, total.....do....	8,383	1,865	6,518	6,047	3,315	2,732
New, total.....do....	7,936	1,652	6,284	5,842	3,197	2,645
New structures and additions to plant.....do....	1,521	353	1,168	1,930	1,086	844
New machinery and equipment.....do....	6,415	1,299	5,116	3,912	2,111	1,801
Used plant and equipment.....do....	447	213	234	205	118	87
Selected operating ratios:						
Payroll/Total employment.....	5,669	5,999	5,574	5,085	5,070	5,109
Production workers/Total employment.....	.82	.83	.82	.85	.84	.87
Man-hours/Production workers.....	1,928	1,968	1,916	2,040	2,071	1,992
Production worker wages/Man-hours.....	2.74	2.83	2.71	2.30	2.25	2.39
Cost of materials and payrolls/Total value of shipments....	.72	.70	.73	.72	.71	.74
Cost of materials/Total value of shipments.....	.39	.37	.39	.33	.32	.36
Adjusted value added/Total employment.....	10,387	1,578	10,042	8,897	8,966	8,788
Salaries and wages/Adjusted value added.....	.55	.52	.56	.57	.56	.58

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>Separate detailed data are not available for "small" establishments that operated mines (including clay pits) or quarries in conjunction with manufacturing operations but reported on "Short forms." These establishments are included with "Establishments Without Mining or Quarrying Activity."

<sup>2</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>3</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3241.—CEMENT, HYDRAULIC											
Establishments.....number..	188	5	2	2	7	23	112	31	6	-	-
All employees:											
Total.....do....	34,863	50	(D)	(D)	258	1,874	18,902	9,946	3,833	-	-
Payroll.....\$1,000..	227,385	323	(D)	(D)	2,042	12,370	121,807	64,859	25,984	-	-
Value added, adjusted.....do....	785,681	2,116	(D)	(D)	7,123	50,116	436,658	209,738	79,930	-	-
Value of shipments.....do....	1,176,913	4,374	(D)	(D)	10,302	81,238	649,261	311,300	120,438	-	-
Capital expenditures, new...do....	120,843	110,890	(D)	(D)	31,941	12,812	37,421	27,779	(D)	-	-
INDUSTRY 3251.—BRICK AND STRUCTURAL TILE											
Establishments.....number..	512	42	27	43	179	163	50	7	1	-	-
All employees:											
Total.....do....	28,620	70	186	607	6,234	11,205	7,412	2,906	(D)	-	-
Payroll.....\$1,000..	130,378	324	644	2,408	27,858	50,777	35,103	13,264	(D)	-	-
Value added, adjusted.....do....	216,548	699	1,542	3,168	46,467	86,000	58,180	20,492	(D)	-	-
Value of shipments.....do....	325,093	1,217	2,243	5,036	71,976	128,473	87,578	28,570	(D)	-	-
Capital expenditures, new...do....	19,344	2,063	(D)	(D)	4,935	7,023	3,742	1,581	(D)	-	-
INDUSTRY 3253.—CERAMIC WALL AND FLOOR TILE											
Establishments.....number..	90	17	2	7	15	9	27	8	4	1	-
All employees:											
Total.....do....	12,795	33	(D)	90	526	665	4,591	2,639	4,251	(D)	-
Payroll.....\$1,000..	63,745	125	(D)	342	2,032	2,657	20,812	12,253	25,524	(D)	-
Value added, adjusted.....do....	110,571	165	(D)	578	3,164	4,090	36,938	23,262	42,374	(D)	-
Value of shipments.....do....	164,668	238	(D)	1,137	4,802	7,226	58,044	36,094	57,127	(D)	-
Capital expenditures, new...do....	9,070	34,440	(D)	(D)	(D)	(D)	1,625	1,240	1,765	(D)	-
INDUSTRY 3255.—CLAY REFRACTORIES											
Establishments.....number..	150	22	8	11	40	30	35	1	2	1	-
All employees:											
Total.....do....	11,431	34	60	147	1,309	2,206	5,435	(D)	2,240	(D)	-
Payroll.....\$1,000..	64,822	288	313	731	6,630	12,327	31,321	(D)	13,212	(D)	-
Value added, adjusted.....do....	118,248	246	642	1,829	15,312	21,199	55,538	(D)	23,482	(D)	-
Value of shipments.....do....	192,230	1,065	1,342	3,446	25,690	32,059	90,448	(D)	38,180	(D)	-
Capital expenditures, new...do....	7,936	78	37	1,511	806	1,511	2,541	(D)	1,452	(D)	-
INDUSTRY 3259.—STRUCTURAL CLAY PRODUCTS, N.E.C.											
Establishments.....number..	164	29	10	17	36	24	41	6	1	-	-
All employees:											
Total.....do....	12,188	45	67	243	1,187	1,684	6,403	2,559	(D)	-	-
Payroll.....\$1,000..	61,977	241	309	1,062	6,012	8,554	32,450	13,349	(D)	-	-
Value added, adjusted.....do....	108,442	355	676	1,609	10,141	11,508	58,314	25,839	(D)	-	-
Value of shipments.....do....	159,724	637	1,066	2,422	13,940	18,499	85,663	37,497	(D)	-	-
Capital expenditures, new...do....	5,842	46	63	102	604	587	2,873	1,567	(D)	-	-

Standard Notes: - Represents zero. (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. (NA) Not available. (X) Not applicable.

n.e.c. Not elsewhere classified.

<sup>1</sup>Includes capital expenditures of over \$10 million for plants under construction but not in operation.

<sup>2</sup>Includes capital expenditures between \$1 million and \$2 million for plants under construction but not in operation.

<sup>3</sup>Includes capital expenditures between \$2 million and \$5 million for plants under construction but not in operation.

**TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B+C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
2241	Cement, hydraulic.....1963..	1,176,913	1,158,276	9,708	8,929	99	1,162,965	1,158,276	4,689	100
	.....1958..	1,073,494	1,059,967	8,118	5,409	99	1,062,849	1,059,967	2,882	100
3251	Brick and structural tile.....1963..	325,093	303,108	6,857	15,128	98	308,136	303,108	5,028	98
	.....1958..	286,709	264,627	10,213	11,869	96	268,887	264,627	4,260	98
3253	Ceramic wall and floor tile.....1963..	164,668	142,726	7,430	14,512	95	143,390	142,726	664	99
	.....1958..	135,470	122,723	7,928	4,819	94	124,196	122,723	1,473	99
3255	Clay refractories.....1963..	192,230	168,133	16,429	7,668	91	180,664	168,133	12,531	93
	.....1958..	163,478	145,617	11,200	6,661	93	158,241	145,617	12,624	92
3259	Structural clay products, n.e.c..1963..	159,724	134,574	17,193	7,957	89	141,400	134,574	6,826	95
	.....1958..	134,928	124,628	4,017	6,283	97	132,325	124,628	7,697	94

NOTE: See Introduction for an explanation of terms used.

n.e.c. Not elsewhere classified.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)

miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Cement, hydraulic (SIC 3241)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Ceramic wall and floor tile (SIC 3253)	Other industries
32410	CEMENT, HYDRAULIC, INDUSTRY				32550	CERAMIC FLOOR AND WALL TILE INDUSTRY—Con.			
	Value of shipments.....	(X)	1,176,913	(X)		Secondary products.....	(X)	7,430	(X)
	Cement, hydraulic.....	1,162,965	1,158,276	14,689		Miscellaneous receipts.....	(X)	14,512	(X)
	Secondary products.....	(X)	9,708	(X)		Value of products bought and resold.....	(X)	14,428	(X)
	Miscellaneous receipts.....	(X)	8,929	(X)		Other miscellaneous receipts.....	(X)	84	(X)
	Value of products bought and resold.....	(X)	8,285	(X)	32590	CLAY REFRACTORIES INDUSTRY	All industries	Clay refractories (SIC 3255)	Other industries
32511	Other miscellaneous receipts....	(X)	644	(X)		Value of shipments.....	(X)	192,230	(X)
	BRICK AND STRUCTURAL CLAY TILE INDUSTRY	All industries	Brick and structural tile (SIC 3251)	Other industries		Clay refractories.....	180,664	168,133	212,531
	Value of shipments.....	(X)	325,093	(X)		Secondary products.....	(X)	16,429	(X)
	Primary products.....	308,136	303,108	5,028		Nonclay refractories, except dead-burned magnesia.....	(X)	8,553	(X)
	Brick, except ceramic glazed and refractory.....	263,584	259,945	3,639		Other secondary products.....	(X)	37,894	(X)
	Glazed brick and structural hollow tile.....	35,880	(D)	(D)	32591	Miscellaneous receipts.....	(X)	7,668	(X)
32510	Brick and structural clay tile, n.s.k.....	8,672	(D)	(D)		Value of products bought and resold.....	(X)	7,055	(X)
	Secondary products.....	(X)	6,857	(X)		Other miscellaneous receipts.....	(X)	613	(X)
	Structural clay products, n.e.c.	(X)	4,665	(X)		STRUCTURAL CLAY PRODUCTS, N.E.C., INDUSTRY	All industries	Structural clay products, n.e.c. (SIC 3259)	Other industries
	Other secondary products.....	(X)	2,192	(X)		Value of shipments.....	(X)	159,724	(X)
	Miscellaneous receipts.....	(X)	15,128	(X)		Primary products.....	141,400	134,574	46,826
	Value of products bought and resold.....	(X)	13,096	(X)	32592	Clay sewer pipe and fittings.....	98,223	95,268	2,955
32530	Other miscellaneous receipts....	(X)	2,032	(X)		Structural clay products, n.e.c....	39,907	36,036	3,871
	CERAMIC WALL AND FLOOR TILE INDUSTRY	All industries	Ceramic wall and floor tile (SIC 3253)	Other industries		Structural clay products, n.e.c., n.s.k.....	3,270	3,270	
	Value of shipments.....	(X)	164,668	(X)		Secondary products.....	(X)	517,193	(X)
	Clay floor and wall tile, including quarry tile.....	143,390	142,726	664		Miscellaneous receipts.....	(X)	7,957	(X)
						Value of products bought and resold.....	(X)	6,364	(X)
						Other miscellaneous receipts.....	(X)	1,593	(X)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Includes over \$2 million shipped by establishments classified in industry 2812, Alkalies and Chlorine. The exact amount is withheld to avoid disclosing figures of individual companies.

<sup>2</sup>Includes \$8 million shipped by establishments classified in industry 3297, Nonclay Refractories.

<sup>3</sup>Includes \$2 million in shipments of product class 32950, Minerals and earths, ground or otherwise treated.

<sup>4</sup>Includes \$5 million shipped by establishments classified in industry 3251, Brick and Structural Tile.

<sup>5</sup>Includes \$12 million in shipments of product class, 30796, Construction plastics products.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Unit of measure	1963			1958		
			Production for all purposes (quantity)	Total shipments, including interplant transfers		Production for all purposes (quantity)	Total shipments, including interplant transfers	
				Quantity	Value (\$1,000)		Quantity	Value (\$1,000)
3241- --	CEMENT, HYDRAULIC, TOTAL.....	.....	(X)	(X)	1,162,965	(X)	(X)	1,062,849
32410 11	Portland cement.....	1,000 bbls. of 376 lbs..	333,434	336,048	1,093,218	303,992	304,704	979,084
32410 31	Prepared or mixed hydraulic and masonry cements other than special portlands.....	1,000 bbls. of 280 lbs..	(S)	(S)	66,551	19,133	19,811	53,270
32410 51	Natural, masonry-natural, pozzolan (slag lime), and hydraulic lime cements.....	1,000 bbls. of 376 lbs..	728	695	2,390	1,050	957	3,208
95120 31	Cost of containers for above cements and mortars...	.....	(X)	(X)	( <sup>1</sup> )	(X)	(X)	24,236
32410 00	Cement, hydraulic, n.s.k.....	.....	(X)	(X)	806	(X)	(X)	3,051
3251- --	BRICK AND STRUCTURAL CLAY TILE, TOTAL.....	.....	(X)	(X)	308,136	(X)	(X)	268,887
32511 --	Brick (except ceramic glazed and refractory brick), total.....	1,000 bricks.	(X)	(X)	263,584	6,401,464	6,332,881	212,700
32511 11	Building or common, and face (2-1/4" x 3-5/8" x 7-5/8" equivalent).....	...do.....	7,117,500	7,003,320	256,658	6,318,714	6,254,990	209,356
32511 19	Other brick (paving, floor, and sewer) 2-1/4" x 3-5/8" x 7-5/8" equivalent.....	...do.....	75,235	72,370	3,037	82,750	77,891	3,344
32511 00	Brick (except ceramic glazed and refractory brick) n.s.k.....	.....	(X)	(X)	3,889	-	-	-
32512 --	Glazed brick and structural hollow tile, total.....	.....	(X)	(X)	35,880	(X)	(X)	43,241
32512 11	Structural clay tile, except facing, including load-bearing and nonload-bearing tile, silo tile, corner tile, structural floor tile, etc.	Short tons...	324,293	319,681	5,239	570,973	548,336	8,998
	Facing tile (structural) and ceramic glazed brick:							
32512 31	Ceramic glazed facing tile and ceramic glazed brick (2-1/4" x 3-5/8" x 7-5/8" equivalent)...	1,000 bricks.	378,442	358,123	28,987	425,902	399,147	31,508
32512 51	Unglazed and salt glazed facing tile (8" x 5" x 12" equivalent).....	1,000 tiles..	7,764	7,596	1,489	16,553	15,764	2,735
32512 00	Glazed brick and structural hollow tile, n.s.k....	.....	(X)	(X)	165	-	-	-
32510 00	Brick and structural clay tile, n.s.k.....	.....	(X)	(X)	8,672	(X)	(X)	12,946
3253- --	CERAMIC WALL AND FLOOR TILE, TOTAL.....	.....	(X)	(X)	143,390	(X)	(X)	124,196
32530 71	Quarry tile and promenade tile.....	1,000 sq. ft.	25,150	23,846	9,648	20,598	18,569	6,579
	Ceramic mosaic tile (tiles having a facial area of less than 6 square inches):							
32530 13	Glazed.....	...do.....	4,288	4,074	2,899	207,312	198,079	113,645
32530 53	Unglazed.....	...do.....	35,635	35,396	18,681			
32530 15	Other glazed floor and wall tile.....	...do.....	221,304	214,628	110,804	(X)	(X)	3,972
32530 55	Other unglazed floor and wall tile.....	...do.....	(X)	(X)	1,358			
32530 00	Ceramic wall and floor tile, n.s.k.....	...do.....						
			Total shipments including interplant transfers					
			1963			1958		
				Quantity	Value (\$1,000)		Quantity	Value (\$1,000)
3255 --	CLAY REFRACTORIES, TOTAL:							
	As reported in the 1963 Census of Manufactures	.....	(X)		180,664	(X)		158,241
3255 --	As reported on census quarterly form M32C....	.....	(X)		176,280			
3255011	Fireclay brick and shapes, except superduty.....	1,000 9"equiv.	286,490		44,161	320,034		56,526
3255015	Superduty fireclay brick and shapes.....	...do.....	67,497		19,185	60,163		15,375
3255021	High alumina brick and shapes (50% Al <sub>2</sub> O <sub>3</sub> and over) made substantially of calcined diaspore or bauxite <sup>2 3</sup> .....	...do.....	32,596		15,373	17,395		7,464

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3255- --	CLAY REFRACTORIES—Continued					
	Insulating fire brick and shapes: <sup>4</sup>					
3255026	1,600°F to 2,000°F (but not including 2,000°F)...	1,000 9"equiv.	5,742	1,217	38,600	9,386
3255027	2,000°F to 2,300°F (but not including 2,300°F)...	...do.....	12,037	2,316		
3255028	2,300°F and higher.....	...do.....	26,523	7,804		
3255031	Ladle brick.....	...do.....	184,961	20,705	167,654	17,024
3255041	Sleeves, nozzles, runnerbrick and tuyeres.....	...do.....	42,457	9,361	34,930	7,448
3255045	Glass-house pots, tank blocks, feeder parts, and upper structural shapes used only for glass tanks <sup>2 3</sup>	Short tons...	13,516	4,391	14,534	3,598
3255047	Hot top refractories.....	...do.....	61,621	4,429	(NA)	3,975
3255049	Clay kiln furniture, radiant heater elements, potters' supplies, and other miscellaneous shaped refractory items.....	...do.....	(NA)	7,210	(X)	4,808
3255053	Refractory bonding mortars, air setting (wet and dry types) <sup>5</sup> .....	...do.....	53,503	6,515	73,571	6,864
3255057	Refractory bonding mortars, except air setting types <sup>5</sup> .....	...do.....	9,488	956	6,499	678
3255061	Plastic refractories and ramming mixes <sup>3 6</sup> .....	...do.....	165,668	13,638	104,189	9,030
3255065	Castable refractories (hydraulic setting).....	...do.....	120,971	12,075	91,812	9,077
3255069	Insulating castable refractories (hydraulic setting).....	...do.....	18,310	2,338	19,746	2,380
3255094	Other clay refractory materials sold in lump or ground form <sup>7</sup> .....	...do.....	204,299	4,606	211,856	4,608
Product code	Product		1963		1958	
			Production for all purposes (short tons)	Total shipments, including interplant transfers	Production for all purposes (short tons)	Total shipments, including interplant transfers
				Quantity (short tons) Value (\$1,000)		Quantity (short tons) Value (\$1,000)
3259- --	STRUCTURAL CLAY PRODUCTS, N.E.C., TOTAL.....		(X)	(X) 141,400	(X)	(X) 132,325
32591 11	Vitrified clay sewer pipe and fittings.....		1,827,316	1,726,556 98,223	1,734,006	1,723,503 86,912
32592 --	Other structural clay products, n.e.c., total.....		(X)	(X) 39,907	(X)	(X) 41,987
32592 11	Drain tile.....		859,811	822,189 19,748	883,173	874,985 18,563
32592 51	Flue lining.....		182,703	176,671 7,637	214,657	213,735 8,680
32592 98	Other structural clay products (such as terra cotta (architectural), roofing tile, conduit, chimney pipe, tops and thimbles, wall coping, adobe brick etc.).....		(X)	(X) 11,786	(X)	(X) 14,744
32592 00	Other structural clay products, n.e.c.....		(X)	(X) 736	(X)	(X)
32590 00	Structural clay products, n.e.c.....		(X)	(X) 3,270	(X)	(X) 3,426

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.  
(X) Not applicable.

(S) Does not meet publication standards.

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>For 1963 included in values of products shipped.

<sup>2</sup>"Calcined" as applied to diaspore and bauxite implies heat treatment short of fusion for volume stability prior to use in a refractory product. In the process, volatile materials are driven off and chemical changes take place.

<sup>3</sup>Excludes data for mullite and extra-high alumina refractories. These products are included with mullite and extra-high alumina brick and shapes in Industry 3297, Nonclay Refractories.

<sup>4</sup>The subdivisions are in accordance with the ASTM Classification C155, the respective groups being 16, 20, and 23 and higher.

<sup>5</sup>Includes bonding mortars which contain up to 60% Al<sub>2</sub>O<sub>3</sub>, dry basis. Bonding mortars which contain more than 60% Al<sub>2</sub>O<sub>3</sub>, dry basis are included in Industry 3297, Nonclay Refractories.

<sup>6</sup>Includes products referred to as plastic fire brick and the less plastic materials intended for ramming into place after the addition of water (when shipped in dry form). Excludes mixes made of mullite or extra-high alumina. Mixes made of these products are included in Industry 3297, Nonclay Refractories.

<sup>7</sup>Represents shipments for direct use as finished refractory products by establishments classified in "manufacturing" industries, and excludes shipments to refractory producers for processing in the manufacture of brick and other refractories. Includes data for calcined clay, ground brick, and siliceous and other gunning mixes.

TABLE 6B. **Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
3241	Cement, hydraulic.....1963..	125	117
	.....1958..	113	116
325	Structural clay products.....1963..	114	117
	.....1958..	101	118
3251	Brick and structural clay tile.....1963..	102	125
	.....1958..	96	115
32511	Brick (except ceramic glazed and refractory brick).....1963..	106	125
	.....1958..	95	115
32512	Glazed brick and structural hollow tile.....1963..	71	119
	.....1958..	86	118
3253	Ceramic wall and floor tile.....1963..	157	98
	.....1958..	127	106
3255	Clay refractories.....1963..	123	128
	.....1958..	94	131
3259	Structural clay products, n.e.c.....1963..	101	130
	.....1958..	100	120
32591	Vitrified clay sewer pipe and fittings.....1963..	106	128
	.....1958..	101	121
32592	Other structural clay products, n.e.c.....1963..	91	140
	.....1958..	97	117

n.e.c. Not elsewhere classified.

TABLE 6C. **Product Classes—Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
32410	Cement, hydraulic.....	1,162,965	1,103,361	1,081,709	1,072,278	1,162,724	1,062,849	807,338	406,916
3251- 32511	Brick and structural clay tile.....	308,136	<sup>2</sup> 296,364	<sup>2</sup> 276,933	<sup>2</sup> 278,517	<sup>2</sup> 294,423	268,887	242,918	-
	Brick, except ceramic glazed and refractory brick.....	263,584	<sup>2</sup> 246,457	<sup>2</sup> 225,285	<sup>2</sup> 223,546	<sup>2</sup> 241,385	212,700	196,107	-
32512	Glazed brick and structural hollow tile....	35,880	36,803	38,579	39,505	40,080	43,241	42,508	-
32510	Brick and structural clay tile, n.s.k.....	8,672	(S)	(S)	(S)	(S)	12,946	4,303	-
32530	Clay floor and wall tile, including quarry tile <sup>3</sup> .....	143,390	157,330	142,706	140,895	149,345	124,196	92,758	43,650
32550	Clay refractories.....	180,664	162,550	162,525	174,065	173,794	158,241	129,086	107,578
3259- 32591	Structural clay products, n.e.c.....	141,400	<sup>2</sup> 137,501	<sup>2</sup> 138,302	<sup>2</sup> 140,985	<sup>2</sup> 145,343	132,325	110,637	75,136
	Clay sewer pipe and fittings.....	98,223	<sup>2</sup> 88,620	<sup>2</sup> 89,640	<sup>2</sup> 94,780	<sup>2</sup> 98,319	86,912	70,878	42,984
32592	Structural clay products, n.e.c.....	39,907	48,881	48,662	46,205	47,024	45,413	39,759	32,152
32590	Structural clay products, n.e.c., n.s.k....	3,270	-	-	-	-	-	-	-

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>The figures for 1959-1962 represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would be obtained from a complete canvass of all manufacturing establishments.

<sup>2</sup>Source: Current Industrial Reports Series M32D, Clay Construction Products.

<sup>3</sup>It appears the estimates derived for 1959-1962 are overstated between 2 and 12 percent, based on a comparison of the totals obtained from Current Industrial Reports Series M32D, Clay Construction Products and the Censuses of Manufactures for 1958 and 1963. The comparable shipments figures as published in Series M32D are as follows:

Year	\$1,000	Year	\$1,000
1963	137,854	1960	129,524
1962	135,526	1959	141,149
1961	124,301	1958	119,171



TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments
BRICK, EXCEPT CERAMIC GLAZED AND REFRACTORY BRICK (32511)	1963 <sup>1</sup>	BRICK, EXCEPT CERAMIC GLAZED AND REFRACTORY BRICK (32511)—Continued	1963 <sup>1</sup>	BRICK, EXCEPT CERAMIC GLAZED AND REFRACTORY BRICK (32511)—Continued	1963 <sup>1</sup>
United States, total....	263,584	West North Central.....	14,901	West South Central.....	29,391
Northeast.....	6,507	Iowa.....	3,071	Arkansas.....	5,088
New Hampshire.....	1,227	Missouri.....	4,251	Louisiana.....	2,298
Connecticut.....	3,616	Nebraska.....	1,798	Oklahoma.....	2,504
		Kansas.....	3,743	Texas.....	19,501
Middle Atlantic.....	35,546	South Atlantic.....	69,133	Mountain.....	12,321
New York.....	8,402	Maryland.....	5,244	Colorado.....	6,370
New Jersey.....	4,701	Virginia.....	10,545	Arizona.....	1,091
Pennsylvania.....	22,443	West Virginia.....	2,453		
		North Carolina.....	22,948		
East North Central.....	48,550	South Carolina.....	10,595		
Ohio.....	28,687	Georgia.....	14,979		
Indiana.....	6,853	East South Central.....	32,547	Pacific.....	14,688
Illinois.....	12,018	Alabama.....	9,924	Washington.....	2,716
		Mississippi.....	8,301	California.....	10,707

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 32511-Maine, Minnesota, District of Columbia, Kentucky, Tennessee, Utah, Oregon.

TABLE 7A. Materials by Kind: 1963

Code	Material	1963	
		Quantity (short tons)	Delivered cost (\$1,000)
		INDUSTRY 3241.—CEMENT, HYDRAULIC	
	Materials, containers, and supplies, total .....	(X)	195,819
264338	Paper shipping sacks and multiwall bags.....	375,952	18,134
	Refractories:		
325501	Clay.....	(S)	4,172
329701	Nonclay.....	(S)	2,906
970099	All other materials and components, parts, containers, and supplies consumed.....	(X)	167,626
976000	Materials, containers, and supplies, n.s.k.....	(X)	2,981

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available (X) Not applicable. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards.

TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

Item	Cement, hydraulic (SIC 3241)	Brick and structural tile (SIC 3251)	Ceramic wall tile floor tile (SIC 3253)	Clay refractories (SIC 3255)	Structural clay products, n.e.c. (SIC 3259)
Total cost of purchased fuels and electric energy.....\$1,000..	172,006	43,705	4,826	14,365	14,975
Total cost of purchased fuels.....do....	117,954	35,074	3,411	11,405	12,647
Bituminous coal, lignite, and anthracite:					
Quantity.....1,000 short tons..	7,631	(S)	(S)	(S)	303
Cost.....\$1,000..	54,205	(S)	(S)	(S)	2,051
Coke and breeze:					
Quantity.....1,000 short tons..	38	(S)	-	(S)	-
Cost.....\$1,000..	383	(S)	-	(S)	-
Fuel oil (distillate and residual):					
Quantity.....1,000 barrels of 42 gallons..	3,053	755	71	174	277
Cost.....\$1,000..	8,381	2,655	278	755	1,024
Gas (natural, manufactured, still, blast furnace, and coke oven):					
Quantity.....million cu.ft..	185,494	64,245	5,672	20,298	22,484
Cost.....\$1,000..	54,758	25,144	2,929	9,494	9,207
Other fuels.....do....	227	3,156	181	78	365
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	5,913	568	99	215	151
Cost.....\$1,000..	54,052	8,631	1,415	2,960	2,328
Generated less sold.....million kw.-hrs..	1,522	(S)	(S)	(S)	(S)
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	2,842	482	56	156	140
Prime movers, total.....do....	757	91	9	12	27
Driving generators.....do....	526	6	2	4	2
Not driving generators.....do....	231	85	7	8	25
Electric motors, total.....do....	2,611	392	48	145	113
Driven by purchased energy.....do....	2,085	391	47	144	113
Driven by energy generated at establishment.....do....	526	1	1	1	(Z)
Aggregate horsepower per 100 production workers.....	9,570	1,674	523	1,480	1,330

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3251-	BRICK AND STRUCTURAL TILE										
	Entire industry.....	512	28,620	130,378	24,665	51,237	102,597	216,548	106,012	325,093	19,344
	Establishments with—										
	90% or more specialization...	484	26,811	121,622	23,163	48,077	96,052	203,900	98,383	304,758	15,723
	75-89% specialization.....	12	788	3,742	656	1,418	2,806	5,864	3,205	9,255	1,379
32511	Brick, except ceramic glazed and refractory (primary product class of estab.).....	432	24,791	111,737	21,453	44,574	88,115	188,772	91,655	283,212	15,838
	Establishments with—										
	90% or more specialization....	383	21,381	96,026	18,586	38,540	76,249	164,739	77,328	244,494	12,904
	75-89% specialization.....	25	1,468	6,465	1,267	2,695	5,021	10,125	5,445	15,903	1,411
32512	Glazed brick and structural hollow tile (primary product class of estab.).....	26	3,037	15,691	2,528	5,284	12,090	22,423	11,047	33,220	1,436
	Establishments with—										
	90% or more specialization....	17	1,969	10,184	1,680	3,501	8,407	13,796	7,065	20,601	1,134
	75-89% specialization.....	4	366	1,622	308	697	1,107	3,184	772	3,951	67
3259-	STRUCTURAL CLAY PRODUCTS, N.E.C.										
	Entire industry.....	164	12,188	61,977	10,364	21,142	48,727	108,442	53,382	159,724	5,842
	Establishments with—										
	90% or more specialization...	132	8,044	40,535	6,909	13,897	32,076	66,153	35,056	99,360	3,745
	75-89% specialization.....	12	1,706	8,739	1,453	2,878	7,042	16,798	6,478	22,928	697
32591	Clay sewer pipe and fittings (primary product class of estab.).....	58	8,867	44,882	7,678	15,382	36,057	80,279	40,567	119,620	4,549
	Establishments with—										
	90% or more specialization....	30	3,932	20,603	3,517	6,847	17,665	35,225	18,970	53,233	1,938
	75-89% specialization.....	13	1,993	8,435	1,710	3,296	6,231	12,750	6,945	19,302	809
32592	Structural clay products, n.e.c. (primary product class of estab.).....	74	3,010	15,389	2,411	5,182	11,208	24,945	11,835	36,087	1,059
	Establishments with—										
	90% or more specialization....	60	2,211	11,740	1,757	3,825	8,441	19,271	9,285	27,804	890
	75-89% specialization.....	5	311	1,386	262	470	1,163	2,413	659	2,998	37

n.e.c. Not elsewhere classified.

**TABLE 9. Selected Statistics for Establishments With Mining Activities: 1963**

Item	Cement, hydraulic (SIC 3241)	Brick and structural tile (SIC 3251)	Clay refractories (SIC 3255)	Structural clay products, n.e.c. (SIC 3259)
Establishments.....number..	149	291	121	176
Production workers wages.....\$1,000..	19,221	6,541	1,294	881
Man-hours of production workers.....1,000..	6,384	2,591	471	410
Cost of supplies, fuels, electric energy, and contract work....\$1,000..	19,044	5,616	1,014	1,643

<sup>1</sup>See footnote 1, table 3.

<sup>2</sup>Only 291 of the 315 establishments reporting mining activity in conjunction with manufacturing also reported separate data for the operation of the mine or pit. See also footnote 1, table 3.

## POTTERY AND RELATED PRODUCTS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3261—Vitreous China Plumbing Fixtures and China and Earthenware Fittings and Bathroom Accessories
- 3262—Vitreous China Table and Kitchen Articles
- 3263—Fine Earthenware (Whiteware) Table and Kitchen Articles
- 3264—Porcelain Electrical Supplies
- 3269—Pottery Products, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3261—VITREOUS CHINA PLUMBING FIXTURES AND CHINA AND EARTHENWARE FITTINGS AND BATHROOM ACCESSORIES

This industry comprises establishments primarily engaged in manufacturing china plumbing fixtures and china and earthenware fittings and bathroom accessories. For a detailed list of products of industry 3261, refer to table 6A, product codes 3261011 to 3261051.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Vitreous Plumbing Fixtures Industry totaled \$156 million. This amount included shipments of vitreous plumbing fixtures (primary products) valued at \$139 million, shipments of other products (secondary products) valued at \$5 million, and miscellaneous receipts at \$12 million.

This industry's shipments of vitreous plumbing fixtures represented 97 percent of its total product shipments. The industry specialization ratio in 1958 was also 97 percent. Secondary products shipped by this industry in 1963 consisted mainly of plumbing fixture fittings and trim (brass goods).



Shipments of vitreous plumbing fixtures by this industry represented 97 percent of all shipments of these products (\$144 million) by all industries. In 1958 the coverage ratio was also 97 percent. Other industries shipping vitreous plumbing fixtures consisted mainly of industry 3431, Metal Plumbing Fixtures.

The production index for the primary products of the industry increased to 140 in 1963 from the 1958 level of 110. The unit value index for 1963 was 88 compared to 102 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3262—VITREOUS CHINA TABLE AND KITCHEN ARTICLES

This industry comprises establishments primarily engaged in manufacturing vitreous china table and kitchen articles for use in households and in hotels, restaurants, and other commercial institutions for preparing, serving, or storing food or drink. Establishments primarily engaged in manufacturing fine (semivitreous) types of earthenware (whiteware) table and kitchen articles are classified in industry 3263. For a detailed list of products of industry 3262, refer to table 6A, product codes 3262018 to 3262052.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Vitreous China Food Utensils Industry totaled \$51 million. This amount included shipments of vitreous china food utensils (primary products) valued at \$47 million, shipments of other products (secondary products) and miscellaneous receipts at \$3 million.

This industry's shipments of vitreous china food utensils represented over 90 percent of its total product shipments. The exact percentage is withheld to avoid disclosing figures of individual companies. The industry specialization ratio in 1958 was 96 percent.

Shipments of vitreous china food utensils by this industry represented 91 percent of all shipments of these products (\$52 million) by all industries. In 1958 the coverage ratio was 96 percent. Other industries shipping vitreous china food utensils consisted mainly of industry 3263, Earthenware Food Utensils.

The production index for the primary products of the industry increased to 90 in 1963 from the 1958 level of 88. The unit value index for 1963 was 119 compared to 123 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3263—FINE EARTHENWARE (WHITEWARE) TABLE AND KITCHEN ARTICLES

This industry comprises establishments primarily engaged in manufacturing fine (semi-vitreous) types of earthenware table and kitchen articles for preparing, serving, or storing food or drink. Establishments primarily engaged in manufacturing vitreous china table and kitchen articles are classified in industry 3262. For a detailed list of products of industry 3263, refer to table 6A, product codes 3263012 to 3263052.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Fine Earthenware Food Utensils Industry totaled \$59 million. This amount included shipments of fine earthenware food utensils (primary products) valued at \$53 million, shipments of other products (secondary products) valued at \$5 million, and miscellaneous receipts at \$2 million.

This industry's shipments of fine earthenware food utensils represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 98 percent. Secondary products shipped by this industry in 1963 consisted mainly of fine vitreous china food utensils.

Shipments of fine earthenware food utensils by this industry represented 91 percent of all shipments of these products (\$58 million) by all industries. In 1958 the coverage ratio was also 91 percent. Other industries shipping fine earthenware food utensils consisted mainly of industry 3253, Ceramic Wall and Floor Tile.

The production index for the primary products of the industry increased to 78 in 1963 from the 1958 level of 60. The unit value index for 1963 was 106 compared to 127 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3264—PORCELAIN ELECTRICAL SUPPLIES

This industry comprises establishments primarily engaged in the manufacture of porcelain electrical insulators, molded porcelain parts for electrical devices, steatite electrical products and other electrical supplies from clay and other ceramic materials. For a detailed list of products of industry 3264, refer to table 6A, codes 3264012 to 3264098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Porcelain Electrical Supplies Industry totaled \$132 million. This amount included shipments of porcelain electrical supplies (primary products) valued at \$115 million, shipments of other products (secondary products) valued at \$12 million, and miscellaneous receipts at \$5 million.

This industry's shipments of porcelain electrical supplies represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 92 percent. Secondary products shipped by this industry in 1963 consisted mainly of pottery products, n.e.c. (\$3 million), and current-carrying wiring devices (over \$2 million).

Shipments of porcelain electrical supplies by this industry represented 95 percent of all shipments of these products (\$121 million) by all industries. In 1958 the coverage ratio was 93 percent. Other industries shipping porcelain electrical supplies consisted mainly of industry 3269, Pottery Products, N.E.C.

#### 3269—POTTERY PRODUCTS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in firing and decorating white china and earthenware for the trade and manufacturing art and ornamental pottery, industrial and laboratory pottery, stoneware and coarse earthenware table and kitchen articles, unglazed red earthenware florists' articles, and other pottery products not elsewhere classified. For a detailed list of products of industry 3269, refer to table 6A, product codes 3269011 to 3269091.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Pottery Products, N.E.C., Industry totaled \$96 million. This amount included shipments of pottery products, n.e.c., (primary products) valued at \$73 million, shipments of other products (secondary products) valued at \$11 million, and miscellaneous receipts at \$12 million.



This industry's shipments of pottery products, n.e.c., represented 87 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent. Secondary products shipped by this industry in 1963 consisted mainly of porcelain electrical supplies.

Shipments of pottery products, n.e.c., by this industry represented 89 percent of all shipments of these products (\$81 million) by all industries. In 1958 the coverage ratio was 90 percent. Other industries shipping pottery products, n.e.c., consisted mainly of industry 3264, Porcelain Electrical Supplies, \$3 million.

### POTTERY AND RELATED PRODUCTS: SIC 326

Value Added by Manufacture by State: 1963

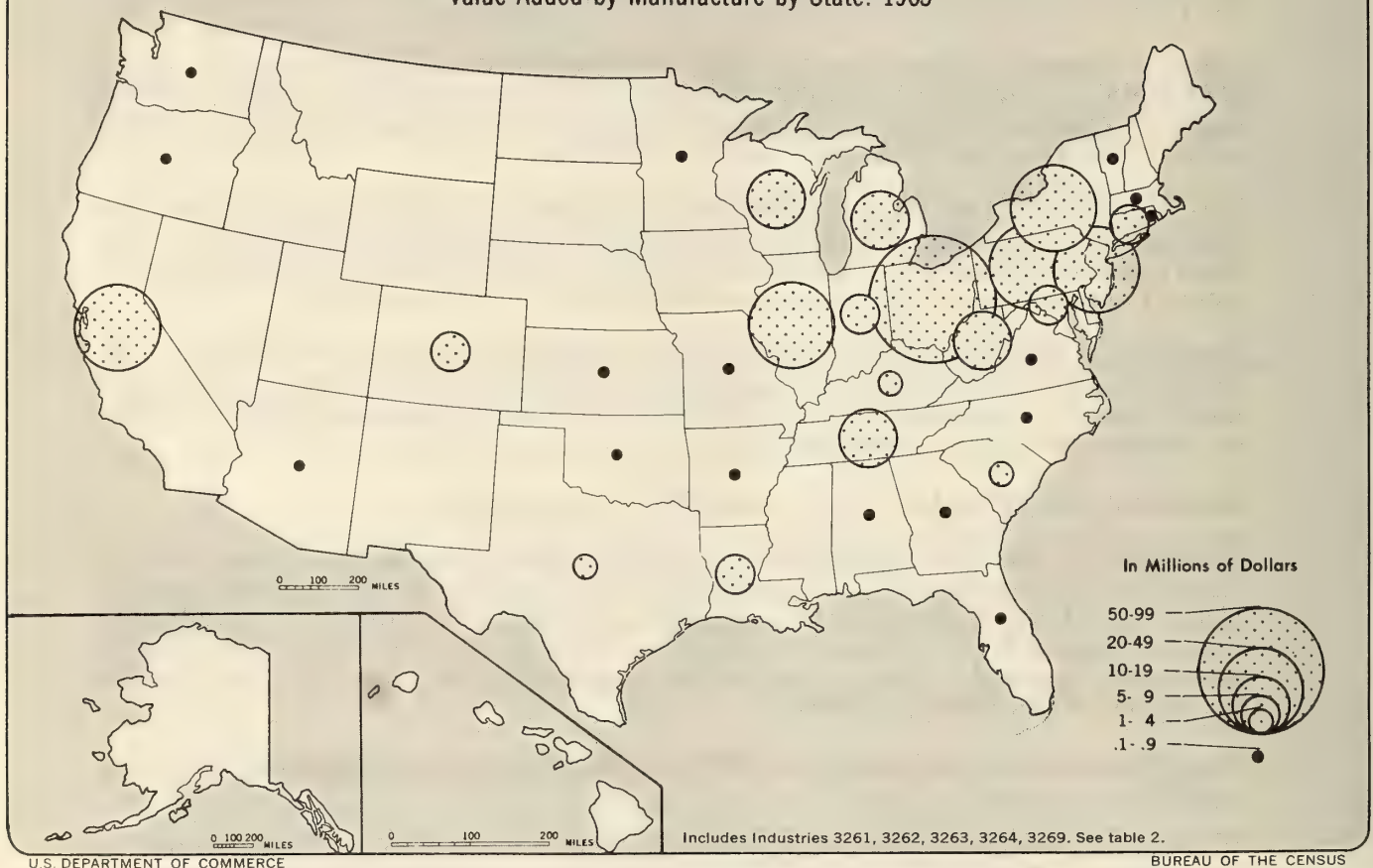


TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spec- ial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3261.—VITREOUS PLUMBING FIXTURES														
1963.....	34	49	43	9,280	56,794	7,893	15,519	46,588	101,502	55,664	155,658	2,442	97	97
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,812	51,529	7,354	14,309	40,955	88,054	52,758	141,451	1,572	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,945	49,339	7,457	14,133	39,277	85,808	49,829	135,382	3,222	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,308	56,050	8,743	16,988	45,042	100,615	56,993	153,726	3,179	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,919	58,820	9,376	18,556	48,219	112,780	64,909	175,530	1,831	(NA)	(NA)
1958.....	35	49	43	9,677	49,568	8,111	15,638	39,580	87,293	52,793	142,683	1,613	97	97
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,240	52,320	8,690	17,249	41,336	99,011	47,217	142,177	(S)	98	99
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,365	57,013	9,822	20,254	46,403	117,255	54,594	162,978	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,883	52,102	9,527	19,758	43,380	107,031	50,599	153,955	(S)	(NA)	(NA)
1954.....	25	37	33	9,200	40,541	7,785	15,676	32,987	75,539	50,242	128,229	1,061	99	99
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,896	37,019	7,582	(NA)	29,253	65,312	31,583	96,895	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,536	43,585	9,191	(NA)	35,827	86,276	40,046	126,322	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,067	38,480	8,757	(NA)	31,411	77,777	33,730	111,507	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,044	32,012	8,020	(NA)	25,923	51,714	30,989	82,703	(NA)	(NA)	(NA)
1947.....	26	33	(NA)	7,831	24,615	6,996	14,591	21,187	45,677	22,416	68,093	(NA)	98	99
1939.....	(NA)	25	(NA)	5,146	7,669	4,534	(NA)	6,316	14,997	6,982	21,979	(NA)	(NA)	(NA)
1937.....	(NA)	30	(NA)	(NA)	(NA)	4,577	(NA)	6,481	14,547	5,846	20,393	(NA)	(NA)	(NA)
INDUSTRY 3262.—VITREOUS CHINA FOOD UTENSILS														
1963.....	26	31	21	6,314	29,552	5,288	9,817	21,773	42,504	8,927	50,954	724	(D)	91
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,691	29,631	5,515	10,611	21,572	43,785	9,154	52,205	1,069	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,512	27,905	5,404	10,088	20,174	40,236	8,560	49,153	631	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,052	30,034	5,876	10,950	21,645	42,588	9,015	51,468	782	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,219	30,367	6,103	11,633	22,633	42,735	8,933	51,792	1,059	(NA)	(NA)
1958.....	26	28	23	7,248	28,573	6,002	10,946	20,508	39,285	8,082	47,695	906	96	96
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,023	30,779	7,011	13,011	23,435	42,120	8,406	49,782	1,045	96	96
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,306	30,664	7,308	13,733	23,771	41,801	8,475	42,914	1,248	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,441	28,158	7,421	13,496	22,110	37,902	7,937	46,436	701	(NA)	(NA)
1954.....	32	34	29	8,704	28,161	7,693	14,061	22,622	36,413	8,675	45,063	1,333	95	96
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,194	24,860	7,340	13,184	30,407	33,061	7,076	40,137	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,356	27,670	8,454	15,937	22,942	34,791	7,902	42,693	(NA)	(NA)	(NA)
1947.....	26	27	25	11,000	26,849	10,326	20,228	23,530	35,228	7,968	43,196	2,692	97	97
1939 <sup>2</sup> .....	(NA)	17	(NA)	4,798	5,716	4,350	(NA)	4,639	7,653	1,707	9,360	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	18	(NA)	(NA)	(NA)	4,671	(NA)	5,030	8,438	1,977	10,415	(NA)	(NA)	(NA)
INDUSTRY 3263.—FINE EARTHENWARE FOOD UTENSILS														
1963.....	20	21	18	7,349	31,614	6,594	12,319	26,416	41,046	17,881	59,046	797	92	91
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	(6,714)	(27,086)	(5,951)	(10,726)	(22,231)	(34,192)	(14,242)	(48,383)	(660)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	(6,890)	(25,870)	(6,172)	(10,833)	(21,098)	(32,769)	(12,969)	(46,446)	(673)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	(8,770)	(33,575)	(7,890)	(13,787)	(27,893)	(41,743)	(16,059)	(58,326)	(724)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	(9,289)	(33,526)	(8,477)	(14,331)	(28,228)	(41,898)	(15,490)	(58,215)	(499)	(NA)	(NA)
1958.....	29	30	24	8,718	28,749	7,969	12,645	24,756	36,311	13,221	50,230	586	98	91
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,916	37,918	10,026	17,018	31,915	45,054	17,514	63,212	778	96	90
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,470	41,439	11,502	19,231	35,045	52,746	18,099	69,307	1,126	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,034	39,706	12,104	19,898	33,686	50,590	17,476	67,985	733	(NA)	(NA)
1954.....	46	47	36	13,335	38,742	12,333	19,467	32,468	48,655	17,220	67,029	528	98	92
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	14,593	42,790	13,510	22,892	37,172	52,173	15,578	67,751	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,726	54,936	16,159	29,266	46,949	72,062	21,007	93,069	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,822	54,001	16,209	29,483	46,484	70,185	22,743	92,928	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,396	47,492	15,866	29,465	40,219	60,894	20,911	81,805	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,146	46,070	16,705	28,022	39,395	56,140	20,500	76,640	(NA)	(NA)	(NA)
1947.....	74	76	42	16,747	42,091	15,742	29,733	37,175	54,837	17,217	72,054	4,784	92	97
1939.....	(NA)	31	(NA)	12,773	15,600	11,728	(NA)	13,150	19,644	8,157	27,801	(NA)	(NA)	(NA)
1937.....	(NA)	35	(NA)	(NA)	(NA)	11,348	(NA)	12,918	17,945	7,744	25,689	(NA)	(NA)	(NA)
INDUSTRY 3264.—PORCELAIN ELECTRICAL SUPPLIES														
1963.....	74	79	49	10,170	57,401	8,028	15,917	41,120	90,001	41,775	131,790	4,142	91	95
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,137	53,782	8,032	15,625	38,809	83,898	40,474	122,765	4,696	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,656	50,563	7,675	15,070	36,447	77,384	37,550	115,264	5,159	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,376	47,211	7,641	15,237	35,440	75,931	35,899	111,384	4,130	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,605	46,502	7,994	16,096	35,093	76,695	34,792	109,864	3,508	(NA)	(NA)
1958.....	57	59	44	9,107	42,362	7,489	14,741	31,342	66,074	31,014	97,475	4,390	92	93
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,538	43,758	7,965	15,916	33,159	70,969	30,370	101,957	(S)	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,347	45,367	8,813	17,602	35,153	72,604	28,899	99,403	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,006	40,526	8,458	17,074	31,468	62,727	25,620	86,902	5,645	(NA)	(NA)
1954.....	42	45	37	9,550	37,679	7,990	15,847	28,629	54,312	27,798	83,169	5,357	94	87
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,393	43,480	9,808	19,765	33,947	63,906	28,751	72,657	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,318	41,748	9,870	19,872	33,415	60,576	30,271	90,847	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,120	41,093	10,754	21,706	33,513	62,768	31,846	94,614	(NA)	(NA)	(NA)

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
	INDUSTRY 3264.—PORCELAIN ELECTRICAL SUPPLIES—Continued													
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,896	30,496	8,690	17,774	24,434	48,760	21,397	70,157	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,282	27,187	8,168	16,371	21,849	42,120	20,561	62,681	(NA)	(NA)	(NA)
1947.....	47	50	40	11,547	30,463	10,447	21,553	25,454	52,832	18,652	71,484	2,904	89	93
1939 <sup>3</sup> .....	(NA)	42	(NA)	6,897	8,767	6,018	(NA)	6,530	13,673	7,144	20,817	(NA)	(NA)	(NA)
1937 <sup>3</sup> .....	(NA)	37	(NA)	(NA)	(NA)	7,170	(NA)	8,160	16,208	7,451	23,659	(NA)	(NA)	(NA)
	INDUSTRY 3269.—POTTERY PRODUCTS, N.E.C.													
1963.....	449	458	98	9,085	37,508	7,539	14,920	27,805	62,107	34,145	95,541	3,064	87	89
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,799	38,018	8,372	15,341	28,481	59,795	34,836	96,211	1,323	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,003	33,829	7,651	14,743	25,630	55,788	31,747	89,642	3,287	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,683	34,979	8,339	15,978	26,730	57,323	29,761	88,798	2,813	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,404	34,801	8,723	16,650	26,608	57,735	31,141	87,295	2,391	(NA)	(NA)
1958 <sup>4</sup> 5.....	580	587	108	9,250	31,218	7,745	15,155	23,778	54,046	25,202	78,800	3,275	93	90
1954 <sup>4</sup> .....	(NA)	704	115	10,144	28,438	8,958	17,177	22,569	42,710	17,302	60,456	2,352	95	90
1947 <sup>4</sup> .....	(NA)	556	126	10,781	22,944	9,865	20,959	19,331	36,218	12,086	48,304	2,710	96	85
1939 <sup>2</sup> 4.....	(NA)	175	(NA)	7,481	9,165	6,475	(NA)	6,824	13,990	4,937	18,927	(NA)	(NA)	(NA)
1937 <sup>2</sup> 4.....	(NA)	147	(NA)	(NA)	(NA)	5,600	(NA)	6,099	12,263	3,997	16,260	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: **All employees:** For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). **Production workers:** For 1947 and prior years figures represent an average of 12 monthly figures. **Value added:** Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. **Cost of materials:** Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. **Value of shipments:** Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Establishments primarily engaged in manufacturing vitreous china household food utensils are excluded from the 1939 and 1937 figures for "Vitreous china food utensils" and included in the figures for "Pottery products, n.e.c." Five establishments were primarily engaged in making these products in 1947.

<sup>3</sup>Excludes data for establishments which manufactured steatite and other ceramic electrical products.

<sup>4</sup>The 1957 Standard Industrial Classification combined in this industry two industries which were separate in the 1945 Standard Industrial Classification. These were: SIC 3265, China Decorating for the Trade, and SIC 3269, Pottery Products, N.E.C. The data for 1957 and earlier years for these two industries have been combined.

<sup>5</sup>Revised to include data for Alaska and Hawaii.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3261.—VITREOUS PLUMBING FIXTURES													
Total.....	49	43	9,280	56,794	7,893	15,519	46,588	101,502	55,664	155,658	2,442	9,677	87,293
Northeast.....	19	14	3,375	20,612	2,857	5,540	17,227	37,593	19,499	56,848	450	3,645	31,343
New Jersey.....	12	10	1,974	11,888	1,672	3,214	9,971	20,201	10,938	31,102	177	( <sup>2</sup> )	( <sup>2</sup> )
North Central.....	15	15	3,804	22,132	3,273	6,486	18,111	38,161	22,227	59,495	967	3,693	32,595
Indiana.....	4	4	668	4,214	550	1,111	3,268	7,347	5,350	12,894	72	830	7,378
Illinois.....	3	3	786	4,457	671	1,155	3,724	7,334	3,913	11,047	175	( <sup>2</sup> )	( <sup>2</sup> )
South.....	7	7	976	5,834	820	1,642	4,607	10,931	6,398	17,274	740	1,181	9,591
Pacific.....	8	7	1,125	8,216	943	1,851	6,643	14,817	7,540	22,041	285	1,158	13,764
California.....	8	7	1,125	8,216	943	1,851	6,643	14,817	7,540	22,041	285	1,158	13,764
INDUSTRY 3262.—VITREOUS CHINA FOOD UTENSILS													
Total.....	31	21	6,314	29,552	5,288	9,817	21,773	42,504	8,927	50,954	724	7,248	39,285
Middle Atlantic.....	11	10	4,568	22,430	3,714	7,023	15,996	32,894	6,822	39,322	619	4,745	28,115
Pennsylvania.....	4	4	1,801	8,681	1,483	2,858	6,516	11,340	2,163	12,960	203	( <sup>2</sup> )	( <sup>2</sup> )
North Central.....	8	5	1,137	4,699	1,026	1,771	3,750	6,569	1,062	7,613	74	1,585	6,703
South and West.....	12	6	609	2,423	548	1,023	2,027	3,041	1,043	4,019	31	918	4,467
INDUSTRY 3263.—FINE EARTHENWARE FOOD UTENSILS													
Total.....	21	18	7,349	31,614	6,594	12,319	26,416	41,046	17,881	59,046	797	8,718	36,311
Northeast and North Central.....	12	11	4,646	19,832	4,168	7,915	17,034	26,488	11,688	38,220	658	4,717	22,350
Ohio.....	7	6	2,707	11,232	2,461	4,560	9,748	14,188	7,591	21,900	445	2,820	11,871
South and West.....	9	7	2,703	11,782	2,426	4,404	9,382	14,558	6,193	20,826	139	4,001	13,961
West Virginia.....	4	3	2,215	9,763	2,037	3,679	8,025	11,578	5,222	16,873	90	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3264.—PORCELAIN ELECTRICAL SUPPLIES													
Total.....	79	49	10,170	57,401	8,028	15,917	41,120	90,001	41,775	131,790	4,142	9,107	66,074
Northeast.....	38	25	3,785	21,200	3,059	6,207	15,292	33,673	18,049	51,383	1,766	3,396	24,190
New York.....	7	4	1,275	8,109	1,015	2,026	5,903	14,586	9,742	24,056	794	1,160	11,039
Pennsylvania.....	8	5	1,265	6,972	1,037	2,134	5,063	11,006	5,119	15,817	452	1,042	6,524
East North Central..	14	12	3,725	21,430	2,804	5,262	15,298	32,412	13,234	45,889	737	3,208	23,944
Ohio.....	8	7	1,567	9,210	1,230	2,360	6,794	18,562	8,722	27,480	349	1,692	14,929
South.....	12	10	2,540	14,124	2,068	4,254	10,059	22,725	9,970	32,782	1,513	2,417	17,573
Pacific.....	15	2	120	647	97	194	471	1,191	522	1,736	126	86	367
INDUSTRY 3269.—POTTERY PRODUCTS, N.E.C.													
Total.....	458	98	9,085	37,508	7,539	14,920	27,805	62,107	34,145	95,541	3,064	39,250	354,046
New England.....	26	2	174	636	150	272	496	1,319	409	1,708	43	179	1,067
Middle Atlantic.....	74	20	1,374	5,749	1,131	2,212	4,196	10,728	4,958	15,628	599	1,357	9,489
New York.....	35	5	247	1,033	197	364	728	2,035	776	2,790	91	406	2,788
New Jersey.....	19	7	398	1,822	317	649	1,275	3,150	929	4,046	306	373	2,220
Pennsylvania.....	20	8	729	2,894	617	1,199	2,193	5,543	3,253	8,792	202	578	4,481
East North Central..	88	36	3,311	14,096	2,684	5,437	9,787	22,898	16,192	38,722	730	( <sup>2</sup> )	( <sup>2</sup> )
Ohio.....	52	25	2,097	8,949	1,038	3,200	5,814	14,425	11,709	25,674	417	( <sup>2</sup> )	( <sup>2</sup> )
Illinois.....	20	9	1,065	4,452	924	2,005	3,455	6,845	4,170	11,116	281	1,084	6,583
West North Central..	15	2	136	520	117	238	396	969	361	1,351	83	( <sup>2</sup> )	( <sup>2</sup> )
South Atlantic.....	42	3	316	949	270	504	747	1,703	1,181	2,869	116	397	1,806
East South Central..	26	7	518	1,618	472	937	1,369	2,253	1,214	3,443	152	444	1,936
West South Central..	21	4	235	698	203	380	565	1,008	389	1,397	119	307	1,447
Texas.....	16	3	190	577	166	314	480	830	329	1,151	109	226	1,117
West.....	166	24	3,021	13,242	2,512	4,940	10,249	21,229	9,441	30,423	1,222	2,860	16,759
California.....	143	22	1,933	6,663	1,746	3,153	5,616	11,209	4,877	15,811	603	2,279	13,191

Footnotes on next page.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Footnotes for Table 2-32C

n.e.c. Not elsewhere classified.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3261, Vitreous Plumbing Fixtures: New England—Connecticut, 2 (250-499); Middle Atlantic—New York, 2 (1-19); Pennsylvania, 3 (1,000-2,499); East North Central—Ohio, 4 (1,000-2,499); Wisconsin, 2 (1,000-2,499); West North Central—Missouri, 1 (20-99); Kansas, 1 (20-99); South Atlantic—Georgia, 1 (20-99); East South Central—Alabama, 1 (20-99); West South Central—Louisiana, 1 (250-499); Texas, 4 (445).

SIC 3262, Vitreous China Food Utensils: Middle Atlantic—New York, 5 (1,000-2,499); New Jersey, 2 (500-999); East North Central—Ohio, 6 (1,000-2,499); Illinois, 1 (20-99); West North Central—Missouri, 1 (1-19); South Atlantic—West Virginia, 2 (100-249); Florida, 1 (1-19); West South Central—Oklahoma, 1 (1-19); Pacific—California, 8 (468).

SIC 3263, Fine Earthenware Food Utensils: Middle Atlantic—New Jersey, 1 (100-249); Pennsylvania, 1 (100-249); East North Central—Illinois, 1 (500-999); Michigan, 1 (250-499); West North Central—Minnesota, 1 (100-249); West South Central—Oklahoma, (20-99); Mountain—Arizona, 1 (1-19); Pacific—California, 3 (250-499).

SIC 3264, Porcelain Electrical Supplies: New England—Massachusetts, 3 (20-99); Rhode Island, 1 (1-19); Connecticut, 2 (100-249); Middle Atlantic—New Jersey, 17 (500-999); East North Central—Indiana, 1 (1-19); Illinois, 2 (250-499); Michigan, 1 (500-999); Wisconsin, 2 (500-999); South Atlantic—Maryland, 4 (500-999); West Virginia, 4 (289); South Carolina, 1 (20-99); East South Central—Tennessee, 3 (1,000-2,499); Pacific—Washington, 1 (1-19); California, 14 (100-249).

SIC 3269, Pottery Products, N.E.C.: New England—Maine, 4 (1-19); New Hampshire, 4 (1-19); Vermont, 2 (1-19); Massachusetts, 8 (20-99); Rhode Island, 2 (1-19); Connecticut, 6 (20-99); East North Central—Indiana, 5 (20-99); Michigan, 6 (20-99); Wisconsin, 5 (1-19); West North Central—Minnesota, 1 (1-19); Iowa, 2 (1-19); Missouri, 6 (20-99); North Dakota, 1 (1-19); South Dakota, 1 (1-19); Nebraska, 1 (1-19); Kansas, 3 (20-99); South Atlantic—Maryland, 1 (1-19); Virginia, 4 (20-99); West Virginia, 5 (20-99); North Carolina, 9 (20-99); South Carolina, 1 (1-19); Georgia, 9 (20-99); Florida, 13 (20-99); East South Central—Kentucky, 13 (414); Tennessee, 6 (20-99); Alabama, 3 (1-19); Mississippi, 4 (1-19); West South Central—Arkansas, 2 (20-99); Louisiana, 1 (1-19); Oklahoma, 2 (1-19); Mountain—Colorado, 8 (1,023); Arizona, 3 (1-19); Utah, 1 (1-19); Pacific—Washington, 4 (1-19); Oregon, 3 (20-99); Hawaii, 4 (20-99).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

<sup>3</sup>Revised to include data for Alaska and Hawaii.

TABLE 3. Detailed Statistics: 1963

Item	Vitreous plumbing fixtures (SIC 3261)	Vitreous china food utensils (SIC 3262)	Fine earthenware food utensils (SIC 3263)	Porcelain electrical supplies (SIC 3264)	Pottery products, n.e.c. (SIC 3269)
Primary product specialization ratio <sup>1</sup> .....	.97	2.90	.92	.91	.87
Coverage ratio <sup>3</sup> .....	.97	.91	.91	.95	.89
Establishments, total.....number..	49	31	21	79	458
With 1 to 19 employees.....do....	6	10	3	30	360
With 20 to 99 employees.....do....	13	5	3	25	81
With 100 employees or more.....do....	30	16	15	24	17
Proprietors and working partners.....do....	2	10	3	21	364
All employees (average for the year).....do....	9,280	6,314	7,349	10,170	9,085
Payroll (all employees), total for year.....\$1,000..	56,794	29,552	31,614	57,401	37,508
Production workers:					
Average for the year.....number..	7,893	5,288	6,594	8,028	7,539
March.....do....	7,845	5,275	6,491	7,956	7,417
May.....do....	7,987	5,311	6,477	8,049	7,122
August.....do....	7,745	5,216	6,496	8,039	7,693
November.....do....	7,996	5,358	6,911	8,088	7,965
Man-hours.....1,000..	15,519	9,817	12,319	15,917	14,920
January-March.....do....	3,777	2,405	2,871	3,920	3,684
April-June.....do....	3,870	2,586	3,127	4,065	3,622
July-September.....do....	3,990	2,215	2,963	3,899	3,780
October-December.....do....	3,891	2,611	3,358	4,043	4,014
Wages.....\$1,000..	46,588	21,773	26,416	41,120	27,805
Cost of materials, etc., total.....do....	55,664	8,927	17,881	41,775	34,145
Materials, parts, containers, and supplies consumed.....do....	40,928	7,269	14,584	33,845	30,831
Cost of resales.....do....	10,155		1,446	3,298	
Fuels consumed.....do....	3,257	1,261	1,348	2,277	2,072
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	107	29	38	106	60
Cost.....\$1,000..	1,324	397	503	1,347	961
Generated less sold.....million kw.-hrs..	(D)	(D)	-	(D)	-
Contract work.....\$1,000..	(4)	-	(4)	1,008	259
Value of shipments (including resales), total.....do....	155,658	50,954	59,046	131,790	95,541
Value of resales.....do....	11,842	(D)	(D)	4,821	9,795
Value added by manufacture, adjusted.....do....	101,502	42,504	41,046	90,001	62,107
Manufacturers' inventories:					
Beginning of year, total.....do....	25,363	11,442	9,835	19,789	8,668
Finished products.....do....	14,878	5,573	5,610	5,260	4,818
Work-in-process.....do....	3,902	3,640	1,431	7,299	1,154
Materials, supplies, fuel, etc.....do....	6,583	2,229	2,794	7,230	2,696
End of year, total.....do....	26,818	11,873	9,663	19,599	9,867
Finished products.....do....	15,738	5,728	5,276	5,385	5,286
Work-in-process.....do....	4,550	3,962	1,646	7,160	1,397
Materials, supplies, fuel, etc.....do....	6,530	2,183	2,741	7,054	3,184
Expenditures for plant and equipment, total.....do....	2,508	2,365	824	4,265	3,343
New, total.....do....	2,442	724	797	4,142	3,064
New structures and additions to plant.....do....	512	39	33	579	894
New machinery and equipment.....do....	1,930	685	764	3,563	2,170
Used plant and equipment.....do....	66	1,641	27	123	279
Selected operating ratios:					
Payroll/Total employment.....	6,120	4,680	4,302	5,644	4,129
Production workers/Total employment.....	.85	.84	.90	.79	.83
Man-hours/Production workers.....	1,966	1,856	1,868	1,983	1,979
Production worker wages/Man-hours.....	3.00	2.22	2.14	2.58	1.86
Cost of materials and payrolls/Total value of shipments....	.72	.76	.84	.75	.75
Cost of materials/Total value of shipments.....	.36	.18	.30	.32	.36
Adjusted value added/Total employment.....	10,938	6,732	5,585	8,850	6,848
Salaries and wages/Adjusted value added.....	.56	.70	.77	.64	.60

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>This is a minimum percentage. The exact percentage is withheld to avoid disclosing figures for individual companies.

<sup>3</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

<sup>4</sup>Cost of contract work included with cost of materials, parts, containers, and supplies to avoid disclosing figures of individual companies.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3261.—VITREOUS PLUMBING FIXTURES											
Establishments.....number..	49	2	3	1	4	9	15	12	3	-	-
All employees:											
Total.....do....	9,280	<u>41</u>	(D)	(D)	105	641	2,354	4,427	1,712	-	-
Payroll.....\$1,000..	56,794	<u>185</u>	(D)	(D)	418	3,339	13,863	28,205	10,784	-	-
Value added, adjusted.....do....	101,502	<u>320</u>	(D)	(D)	520	5,204	24,079	52,105	19,274	-	-
Value of shipments.....do....	155,658	<u>544</u>	(D)	(D)	850	7,672	41,358	77,712	27,522	-	-
Capital expenditures, new...do....	2,442	<u>8</u>	(D)	(D)	15	637	394	1,124	264	-	-
INDUSTRY 3262.—VITREOUS CHINA FOOD UTENSILS											
Establishments.....number..	31	4	2	4	3	2	6	8	-	2	-
All employees:											
Total.....do....	6,314	7	<u>72</u>	(D)	<u>267</u>	(D)	864	<u>5,104</u>	-	(D)	-
Payroll.....\$1,000..	29,552	11	<u>299</u>	(D)	<u>964</u>	(D)	3,585	<u>24,693</u>	-	(D)	-
Value added, adjusted.....do....	42,504	17	<u>488</u>	(D)	<u>1,648</u>	(D)	4,485	<u>35,866</u>	-	(D)	-
Value of shipments.....do....	50,954	22	<u>593</u>	(D)	<u>1,798</u>	(D)	5,968	<u>42,573</u>	-	(D)	-
Capital expenditures, new...do....	724	<u>5</u>	(D)	(D)	<u>37</u>	(D)	52	<u>630</u>	-	(D)	-
INDUSTRY 3263.—FINE EARTHENWARE FOOD UTENSILS											
Establishments.....number..	21	-	1	2	2	1	5	5	3	2	-
All employees:											
Total.....do....	7,349	-	<u>182</u>	(D)	(D)	(D)	819	1,840	<u>4,508</u>	(D)	-
Payroll.....\$1,000..	31,614	-	<u>656</u>	(D)	(D)	(D)	3,577	7,992	<u>19,389</u>	(D)	-
Value added, adjusted.....do....	41,046	-	<u>769</u>	(D)	(D)	(D)	4,444	10,618	<u>25,215</u>	(D)	-
Value of shipments.....do....	59,046	-	<u>1,399</u>	(D)	(D)	(D)	6,967	15,386	<u>35,294</u>	(D)	-
Capital expenditures, new...do....	797	-	<u>66</u>	(D)	(D)	(D)	(D)	342	<u>389</u>	(D)	-
INDUSTRY 3264.—PORCELAIN ELECTRICAL SUPPLIES											
Establishments.....number..	79	18	4	8	13	12	13	5	5	1	-
All employees:											
Total.....do....	10,170	30	23	101	382	941	2,129	1,557	<u>5,007</u>	(D)	-
Payroll.....\$1,000..	57,401	172	94	445	1,977	4,210	11,661	7,808	<u>31,034</u>	(D)	-
Value added, adjusted.....do....	90,001	232	109	561	3,062	7,120	18,318	14,065	<u>46,534</u>	(D)	-
Value of shipments.....do....	131,790	324	212	759	4,500	9,669	28,709	18,931	<u>68,686</u>	(D)	-
Capital expenditures, new...do....	4,142	20	6	93	223	341	684	356	<u>2,419</u>	(D)	-
INDUSTRY 3269.—POTTERY PRODUCTS, N.E.C.											
Establishments.....number..	458	223	94	43	58	23	13	3	1	-	-
All employees:											
Total.....do....	9,085	340	622	590	1,902	1,585	2,164	<u>1,882</u>	(D)	-	-
Payroll.....\$1,000..	37,508	951	1,997	2,194	7,644	6,278	8,280	<u>10,164</u>	(D)	-	-
Value added, adjusted.....do....	62,107	2,096	3,699	4,183	12,556	10,579	13,103	<u>15,891</u>	(D)	-	-
Value of shipments.....do....	95,541	3,070	5,600	6,061	17,275	15,901	20,647	<u>26,987</u>	(D)	-	-
Capital expenditures, new...do....	3,064	230	335	173	812	245	575	<u>694</u>	(D)	-	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

n.e.c. Not elsewhere classified.

TABLE 5A. **Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B+C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3261	Vitreous plumbing fixtures.....1963..	155,658	139,069	4,721	11,868	97	143,762	139,069	4,693	97
	1958..	142,683	126,746	4,074	11,863	97	130,517	126,746	3,771	97
3262	Vitreous china food utensils.....1963..	50,954	47,458	(D)	(D)	<sup>1</sup> 90	51,887	47,458	4,429	91
	1958..	47,695	44,865	2,033	797	96	46,908	44,865	2,043	96
3263	Fine earthenware food utensils....1963..	59,046	52,920	4,541	1,585	92	58,231	52,920	5,311	91
	1958..	50,230	48,450	883	897	98	53,456	48,448	5,008	91
3264	Porcelain electrical supplies.....1963..	131,790	114,795	11,714	5,281	91	121,472	114,795	6,677	95
	1958..	97,475	84,749	7,492	5,234	92	91,097	84,749	6,348	93
3269	Pottery products, n.e.c.....1963..	95,541	72,657	10,613	12,271	87	81,376	72,657	8,719	89
	1958 <sup>2</sup> .	78,755	67,484	5,241	6,030	93	74,981	67,484	7,497	90

NOTE: See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>This is a minimum percentage. The exact percentage is withheld to avoid disclosing figures for individual companies.

<sup>2</sup>Does not include data for Alaska and Hawaii.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Vitreous plumbing fixtures (SIC 3261)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Earthenware food utensils (SIC 3263)	Other industries
32610	VITREOUS PLUMBING FIXTURES INDUSTRY				32640	EARTHENWARE FOOD UTENSILS INDUSTRY—Continued			
	Total shipments and receipts of the industry.....	(X)	155,658	(X)		Value of products bought and resold..	(X)	1,585	(X)
	Vitreous and semivitreous plumbing fixtures.....	143,762	139,069	4,693		Listing of other industries with over \$2 million shipments of earthenware food utensils:			
	Secondary products.....	(X)	4,721	(X)		3253 Ceramic wall and floor tile..	(X)	(X)	(over 2)
	Plumbing fixture fittings and trim (brass goods).....	(X)	(2-5)	(X)					
	Other secondary products.....	(X)	(under 2)	(X)			All industries	Porcelain electrical supplies (SIC 3264)	Other industries
	Miscellaneous receipts.....	(X)	11,868	(X)					
34320	Value of products bought and resold.....	(X)	11,842	(X)	32690	PORCELAIN ELECTRICAL SUPPLIES INDUSTRY			
	Other miscellaneous receipts.....	(X)	26	(X)		Total shipments and receipts of the industry.....	(X)	131,790	(X)
	Listing of other industries with over \$2 million shipments of vitreous plumbing fixtures:					Porcelain steatite and other ceramic electrical products.....	121,472	114,795	6,677
	3431 Metal plumbing fixtures....	(X)	(X)	(over 2)		Secondary products.....	(X)	11,714	(X)
		All industries	Vitreous china food utensils (SIC 3262)	Other industries		Pottery products, including china decorating for the trade, n.e.c....	(X)	2,582	(X)
						Current-carrying wiring devices, including lightning rods.....	(X)	(over 2)	(X)
						Other secondary products.....	(X)	(over 2)	(X)
32620	VITREOUS CHINA FOOD UTENSILS INDUSTRY				32640	Miscellaneous receipts.....	(X)	5,281	(X)
	Total shipments and receipts of the industry.....	(X)	50,954	(X)		Value of products bought and resold	(X)	4,821	(X)
	Vitreous china table and kitchen articles.....	51,887	47,458	4,429		Other miscellaneous receipts.....	(X)	460	(X)
	Secondary products.....	(X)	3,496	(X)		Listing of other industries with over \$2 million shipments of porcelain electrical supplies:			
	Miscellaneous receipts.....					3269 Pottery products, n.e.c.....	(X)	(X)	(2-5)
	Listing of other industries with over \$2 million shipments of vitreous china food utensils:						All industries	Pottery products, n.e.c. (SIC 3269)	Other industries
	3263 Fine earthenware food utensils.....	(X)	(X)	(2-5)					
32630	EARTHENWARE FOOD UTENSILS INDUSTRY				32690	POTTERY PRODUCTS, N.E.C. INDUSTRY			
	Total shipments and receipts of the industry.....	(X)	59,046	(X)		Total shipments and receipts of the industry.....	(X)	95,541	(X)
	Earthenware (semivitreous) table and kitchen articles.....	58,231	52,920	5,311		Pottery products, n.e.c.....	81,376	72,657	8,719
	Secondary products.....	(X)	4,541	(X)		Secondary products.....	(X)	10,613	(X)
		All industries	Earthenware food utensils (SIC 3263)	Other industries		Porcelain electrical supplies.....	(X)	(2-5)	(X)
						Metal cans.....	(X)	(over 2)	(X)
						Other secondary products.....	(X)	(over 2)	(X)
32620	VITREOUS CHINA TABLE AND KITCHEN ARTICLES INDUSTRY				32640	Miscellaneous receipts.....	(X)	12,271	(X)
	Total shipments and receipts of the industry.....	(X)	59,046	(X)		Value of products bought and resold	(X)	9,795	(X)
	Vitreous china table and kitchen articles.....	58,231	52,920	5,311		Other miscellaneous receipts.....	(X)	2,476	(X)
	Secondary products.....	(X)	4,541	(X)		Listing of other industries with over \$2 million shipments of pottery products, n.e.c.:			
		All industries	Earthenware food utensils (SIC 3263)	Other industries		3264 Porcelain electrical supplies.....	(X)	(X)	2,582

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	1963			1958		
		Production for all purposes (number)	Total shipments including interplant transfers		Production for all purposes (number)	Total shipments including interplant transfers	
			Quantity (number)	Value (\$1,000)		Quantity (number)	Value (\$1,000)
3261- --	VITREOUS AND SEMIVITREOUS PLUMBING FIXTURES AND ACCESSORIES, TOTAL.....	(X)	(X)	143,762	(X)	(X)	130,517
32610 11	Plumbing fixtures: Total as reported in the census of manufactures.....	(X)	(X)	136,996	(X)	(X)	124,463
	Total as reported on Census Quarterly Form M34E <sup>1</sup> .....	(X)	(X)	<sup>2</sup> 142,159	(X)	(X)	<sup>2</sup> 124,522
32610 14	Drinking fountains.....	50,546	50,978	(X)	(X)	68,978	(X)
32610 16	Lavatories.....	2,598,651	2,523,516	(X)	(X)	2,179,706	(X)
	Water closet bowls:						
32610 18	Syphon jet.....	1,132,912	1,022,291	(X)	(X)	484,436	(X)
32610 20	Washdown.....	1,687,463	1,662,971	(X)	(X)	1,813,522	(X)
32610 22	Reverse trap.....	2,812,900	2,734,725	(X)	(X)	1,938,405	(X)
32610 24	Flush tanks.....	4,787,552	4,600,563	(X)	(X)	3,639,123	(X)
32610 26	Urinals.....	196,037	191,926	(X)	(X)	157,186	(X)
32610 51	China and earthenware plumbing fixture accessories and fittings (including towel racks, soap cups, etc.).....	(X)	(X)	6,100	(X)	(X)	5,290
32610 00	Vitreous and semivitreous plumbing fixtures and accessories, n.s.k.....	(X)	(X)	666	(X)	(X)	764
Total shipments including interplant transfers							
1963				1958			
		Quantity (1,000 dozen pieces)	Value (\$1,000)		Quantity (1,000 dozen pieces)		Value (\$1,000)
3262- --	VITREOUS CHINA AND PORCELAIN TABLE AND KITCHEN ARTICLES, TOTAL	(X)	51,887		(X)	46,908	
32620 18	Tableware (for serving food and drink): Hotel or commercial.....	}	6,682	33,827	}	6,151	28,369
32620 14	Household.....		1,130	17,712		1,238	18,344
32620 52	Kitchenware, household and commercial (for cooking, preparing, and storing food or drink).....		(X)	348	(X)		195
32620 00	Vitreous china and porcelain table and kitchen articles, n.s.k....						
3263- --	EARTHENWARE (SEMIVITREOUS) TABLE AND KITCHEN ARTICLES, TOTAL..	(X)	58,231		(X)	53,456	
32630 12	Tableware, household and commercial (for serving food and drink)..	28,160	56,671		21,292	52,045	
32630 52	Kitchenware, household and commercial (for cooking, preparing, and storing food and drink).....	250	1,560		256	1,080	
32630 00	Earthenware (semivitreous) table and kitchen articles, n.s.k.....	-	-		(X)	331	

Product code	Product	Total shipments including interplant transfers (\$1,000)	
		1963	1958
3264- --	PORCELAIN, STEATITE, AND OTHER CERAMIC ELECTRICAL PRODUCTS, TOTAL.....	<sup>3</sup> 121,472	<sup>3</sup> 91,097
	Porcelain electrical products (excluding steatite, alumina, ferrite, titanate, etc.):		
	High-voltage porcelain products (wet process porcelain) shipped with integral hardware parts:		
32640 12	Low-voltage one-piece pintype insulators.....	3,068	}
32640 13	High-voltage pintype insulators.....	6,067	
	Suspension type insulators:		
32640 14	7 1/2-inch discs and smaller.....	6,307	}
32640 15	Larger than 7 1/2-inch discs.....	11,195	
32640 16	Switch and bus insulators (Include cap and pin, and post types).....	11,115	
32640 17	All other including guy strain insulators and spools.....	11,785	
32640 18	High voltage porcelain products (wet process porcelain), shipped without integral hardware parts	8,758	
32640 21	All standard dry process electrical porcelain, including cleats, knobs, tubes, outlet and switch box covers, etc.....	1,345	2,876
32640 31	All special dry process electrical porcelain, including porcelain parts for wiring devices, fuses, circuit breakers, radio receiving sets, spark plugs, etc., and electrical refractory porcelain.....	26,044	7,965
32640 41	Steatite electrical products.....	15,635	8,603
32640 98	Other ceramic electrical products, including alumina, ferrite (except for electronic applications applications), titanate, etc., electrical products.....	17,103	19,120
32640 00	Porcelain electrical supplies, n.s.k.....	3,050	2,777

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers			
		1963		1958 <sup>4</sup>	
		Quantity (1,000 dozen pieces)	Value (\$1,000)	Quantity (1,000 dozen pieces)	Value (\$1,000)
3269- --	POTTERY PRODUCTS, N.E.C., TOTAL.....	(X)	81,376	(X)	74,981
	Art, decorative and novelty pottery ware (including vases, lamp bases, figures, plaques, book ends, garden pottery, ash trays):				
32690 11	China and porcelain.....	(X)	15,112	(X)	12,342
32690 31	Earthenware and stoneware.....	(X)	21,215	(X)	18,429
32690 40	Stoneware table and kitchen articles, household and commercial (for serving, cooking, preparing, and storing food and drinks).....	872	3,340	(NA)	3,126
	Other pottery products, n.e.c.:				
32690 61	Chemical, technical and industrial pottery ware (including chemical stoneware and porcelain, pyrometric tubes, etc.).....	(X)	18,487	(X)	9,309
32690 71	Red unglazed earthenware (flower pots, etc.).....	(X)	5,840	(X)	6,708
32690 81	All other pottery products (including pyrometric cones, veritas rings, etc.).....	(X)	2,795	(X)	2,531
32690 91	China decorating for the trade.....	(S)	6,511	(NA)	5,487
32690 00	Pottery products, n.e.c., n.s.k.....	(X)	8,066	(X)	17,049

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>The source of the quantity data for codes 3261014-3261026 is Current Industrial Reports Series M34E(63)-5, Plumbing Fixtures. No separate quantity data for vitreous and semivitreous sinks, laundry trays, sink and laundry tray combinations, and other plumbing fixtures are available since these items were combined with similar items made of other materials in the M34E report.

<sup>2</sup>Represents vitreous china only. In addition, shipments valued at \$2,398,000 in 1963 and \$2,236,000 in 1958 were reported for plumbing fixtures made of earthenware, concrete, and composition.

<sup>3</sup>Includes value of metal fittings when shipped as an integral part of the ceramic product.

<sup>4</sup>Does not include data for Alaska and Hawaii.

TABLE 6B. **Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
326	Pottery and related products.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
3261	Vitreous and semivitreous plumbing fixtures and accessories.....1963..	140	88
	.....1958..	110	102
3262	Vitreous china and porcelain table and kitchen articles.....1963..	90	119
	.....1958..	88	123
3263	Earthenware (semivitreous) table and kitchen articles.....1963..	78	106
	.....1958..	60	127
3264	Porcelain, steatite, and other ceramic electrical products.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
3269	Pottery products.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup>Not shown because comparable quantity data were not obtained for a significant portion of these products.

**TABLE 6C. Product Classes—Value Shipped by All Manufacturing Establishments:  
1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
32610	Vitreous and semivitreous plumbing fixtures..	143,762	133,847	128,139	140,951	160,101	130,517	116,560	67,165
32620	Vitreous china table and kitchen articles....	51,887	47,750	45,070	49,569	46,748	46,908	43,295	42,783
32630	Fine earthenware (semivitreous) table and kitchen articles.....	58,231	(50,174)	(49,449)	(60,206)	(62,673)	53,456	71,706	68,144
32640	Porcelain, steatite and other electrical products <sup>2</sup> .....	121,472	119,833	113,295	109,503	108,516	91,097	83,928	68,312
32690	Pottery products, including china decorating for the trade, n.e.c.....	81,376	77,657	73,356	76,777	78,053	<sup>3</sup> 74,981	61,899	53,961

n.e.c. Not elsewhere classified.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Includes value of metal fittings when shipped as an integral part.

<sup>3</sup>Does not include data for Alaska and Hawaii.

**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments,  
by Geographic Areas: 1963**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments
POTTERY PRODUCTS, N.E.C. (32690)	1963 <sup>1</sup>	POTTERY PRODUCTS, N.E.C. (32690)—Continued	1963 <sup>1</sup>	POTTERY PRODUCTS, N.E.C. (32690)—Continued	1963 <sup>1</sup>
United States, total....	81,376	East North Central.....	29,114	East South Central.....	5,176
New England.....	1,782	Ohio.....	15,369	Kentucky.....	2,367
Middle Atlantic.....	17,132	Illinois.....	11,216	Tennessee.....	2,746
New York.....	2,917			West South Central.....	1,698
New Jersey.....	6,236	West North Central.....	1,487	Texas.....	1,227
Pennsylvania.....	7,979	South Atlantic.....	2,536	West.....	22,451
				California.....	14,953

n.e.c. Not elsewhere classified.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 32690, Michigan and Colorado.



TABLE 7A. Materials by Kind: 1963

Code	Material	1963	
		Quantity	Delivered cost (\$1,000)
		INDUSTRY 3261.—VITREOUS PLUMBING FIXTURES	
	Materials, parts, containers, and supplies, total <sup>1</sup> .....	(X)	<sup>2</sup> 40,928
325501	Clay refractories.....	(S)	4,630
329701	Nonclay refractories.....	(S)	1,491
265011	Paperboard boxes and containers, including folding, corrugated, and set-up.....	(X)	5,460
970099	All other materials and components, parts, containers, and supplies consumed.....	(X)	<sup>2</sup> 29,347
		INDUSTRY 3263.—FINE EARTHENWARE FOOD UTENSILS	
	Materials, parts, containers, and supplies, total <sup>1</sup> .....	(X)	<sup>2</sup> 14,584
265011	Paperboard boxes and containers, including folding, corrugated, and set-up.....	(X)	3,005
970099	All other materials and components, parts, containers, and supplies consumed.....	(X)	<sup>2</sup> 11,143
976000	Materials, parts, containers, and supplies, n.s.k.....	(X)	436
		INDUSTRY 3264.—PORCELAIN ELECTRICAL SUPPLIES	
	Materials, parts, containers, and supplies, total <sup>1</sup> .....	(X)	33,845
325501	Clay refractories.....	(X)	3,690
329701	Nonclay refractories.....	(S)	1,780
265011	Paperboard boxes and containers, including folding, corrugated, and set-up.....	(X)	1,496
970099	All other materials and components, parts, containers, and supplies consumed.....	(X)	22,289
976000	Materials, parts, containers, and supplies, n.s.k.....	(X)	<sup>3</sup> 4,590
		INDUSTRY 3269.—POTTERY PRODUCTS, N.E.C.	
	Materials, parts, containers, and supplies, total <sup>1</sup> .....	(X)	24,397
325501	Clay refractories.....	(S)	1,502
329701	Nonclay refractories.....	(S)	1,207
265011	Paperboard boxes and containers, including folding, corrugated, and set-up.....	(X)	2,166
970099	All other materials and components, parts, containers, and supplies consumed.....	(X)	10,992
976000	Materials, parts, containers, and supplies, n.s.k.....	(X)	8,530

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Net applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Costs are not available in comparable detail for 1958.

<sup>2</sup>Includes cost of contract work to avoid disclosing figures of individual companies.

<sup>3</sup>Represents (a) total cost of materials for small establishments reporting on "short form" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for these establishments which failed to report costs of individual materials on "standard forms."

TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

Item	Vitreous plumbing fixtures (SIC 3261)	Vitreous china food utensils (SIC 3262)	Fine earthenware food utensils (SIC 3263)	Porcelain electrical supplies (SIC 3264)	Pottery products, n.e.c. (SIC 3269)
Total cost of purchased fuels and electric energy.....\$1,000..	4,496	1,611	2,101	2,997	2,613
Total cost of purchased fuels.....do....	3,219	1,208	1,546	1,895	1,911
Bituminous coal, lignite, and anthracite:					
Quantity.....1,000 short tons..	45	(S)	(S)	36	-
Cost.....\$1,000..	382	(S)	(S)	299	-
Coke and breeze:					
Quantity.....1,000 short tons..	-	-	-	-	-
Cost.....\$1,000..	-	-	-	-	-
Fuel oil (distillate and residual):					
Quantity.....1,000 barrels of 42 gallons..	147	(S)	(S)	83	(S)
Cost.....\$1,000..	476	(S)	(S)	297	(S)
Gas (natural, manufactured, still, blast furnace, and coke oven):					
Quantity.....million cu.ft..	4,285	1,729	2,260	2,060	2,262
Cost.....\$1,000..	2,088	1,060	1,275	1,246	1,403
Other fuels.....do....	273	(S)	(S)	53	219
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	108	30	41	94	43
Cost.....\$1,000..	1,277	403	555	1,102	702
Generated less sold.....million kw.-hrs..	(S)	(S)	-	6	-
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	46	14	14	51	23
Prime movers, total.....do....	8	2	(Z)	4	3
Driving generators.....do....	2	2	(Z)	1	1
Not driving generators.....do....	6	-	(Z)	3	2
Electric motors, total.....do....	38	14	14	50	20
Driven by purchased energy.....do....	38	11	14	46	20
Driven by energy generated at establishment.....do....	(Z)	2	-	4	-
Aggregate horsepower per 100 production workers.....	626	254	235	635	275

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. (Z) Less than 500 horsepower.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

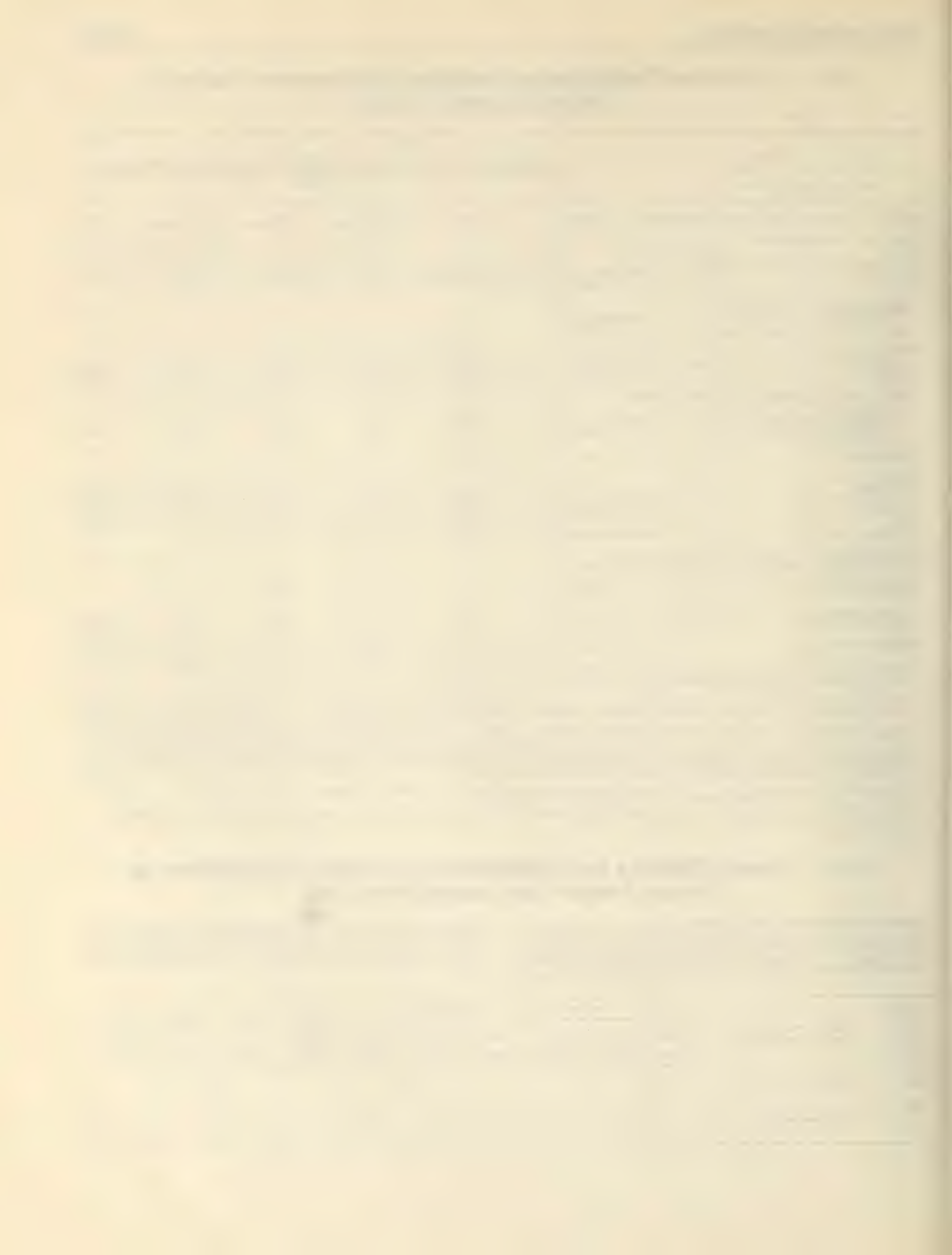
This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3269-	POTTERY PRODUCTS, N.E.C.										
	Entire industry.....	458	9,085	37,508	7,539	14,920	27,805	62,107	34,145	95,541	3,064
	Establishments with--										
	90% or more specialization..	435	6,791	24,791	5,960	11,437	19,785	41,608	19,408	60,524	2,086

n.e.c. Not elsewhere classified.





## CONCRETE, PLASTER, AND CUT STONE PRODUCTS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

3271--Concrete Brick and Block  
3272--Concrete Products, Except Block and Brick  
3273--Ready Mixed Concrete  
3274--Lime  
3275--Gypsum Products  
3281--Cut Stone and Stone Products

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3271--CONCRETE BRICK AND BLOCK

This industry comprises establishments primarily engaged in manufacturing concrete building blocks and brick from a combination of cement and aggregate. Contractors engaged in concrete construction work are classified in the construction industries, and building materials dealers primarily engaged in mixing and delivering ready mixed concrete, in industry 3273. For a detailed list of products of industry 3271, refer to table 6A, product codes 3271011 to 3271000.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Concrete Block and Brick Industry totaled \$505 million. This amount included shipments of concrete block and brick (primary products) valued at \$395 million, shipments of other products (secondary products) valued at \$36 million, and miscellaneous receipts, at \$74 million.

This industry's shipments of concrete block and brick represented 92 percent of its total product shipments. Secondary products shipped by this industry in 1963 consisted mainly of precast concrete products, \$13 million, and ready mixed concrete, \$11 million.

Shipments of concrete block and brick by this industry represented 84 percent of all shipments of these products (\$472 million) by all industries. Other industries shipping



concrete block and brick (primary products) consisted mainly of industry 3273, Ready Mixed Concrete, \$53 million, and industry 3272, Concrete Products, \$22 million.

The production index for the primary products of the industry increased to 121 in 1963 from the 1958 level of 101. The unit value index for 1963 was 111. Both indexes were computed on a basis of 1954 = 100.

#### 3272—CONCRETE PRODUCTS, EXCEPT BLOCK AND BRICK

This industry comprises establishments primarily engaged in manufacturing concrete products, except block and brick, from a combination of cement and aggregate. Contractors engaged in concrete construction work are classified in the construction industries and building materials dealers primarily engaged in mixing and delivering ready mixed concrete in industry 3273. For a detailed list of products of industry 3272, refer to table 6A, product codes 3272107 to 3272000.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Concrete Products Industry totaled \$926 million. This amount included shipments of concrete products (primary products) valued at \$807 million, shipments of other products (secondary products) valued at \$48 million, and miscellaneous receipts, at \$71 million.

This industry's shipments of concrete products represented 94 percent of its total product shipments. Secondary products shipped by this industry consisted mainly of concrete brick and block, \$22 million, and ready mixed concrete, \$10 million.

Shipments of concrete products by this industry represented 94 percent of all shipments of these products (\$862 million) by all industries. Other industries shipping concrete products (primary products) consisted mainly of industry 3271, Concrete Block and Brick, \$20 million, and industry 3273, Ready Mixed Concrete, \$24 million.

#### 3273—READY MIXED CONCRETE

This industry comprises establishments primarily engaged in manufacturing Portland cement concrete, manufactured and delivered to a purchaser in a plastic and unhardened state. This industry includes production and sale of central mixed concrete, shrink mixed concrete and transit mixed concrete.

The Ready Mixed Concrete Industry was included for the first time in the census of manufactures for 1958. No comparable figures are available for years prior to 1958. For detailed data on products of industry 3273, refer to table 6A, product code 3273011.

Value of shipments and other receipts of the Ready Mixed Concrete Industry totaled \$2,293 million. This amount included shipments of ready mixed concrete (primary products) valued at \$1,924 million, shipments of other products (secondary products) valued at \$173 million, and miscellaneous receipts, at \$195 million.

This industry's shipments of ready mixed concrete represented 92 percent of its total product shipments. Secondary products shipped by this industry consisted mainly of common sand and gravel, \$53 million, and concrete block and brick, \$53 million.

Shipments of ready mixed concrete by this industry represented 98 percent of all shipments of these products (\$1,971 million) by all industries. Other industries shipping ready mixed concrete consisted mainly of industry 3271, Concrete Block and Brick, \$11 million, and industry 3272, Concrete Products, \$10 million.

The production index for the primary products of the industry increased to 182 in 1963 from the 1958 level of 144. The unit value index for 1963 was 119 compared to 112 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3274--LIME

This industry comprises establishments primarily engaged in manufacturing quicklime, hydrated lime, and dead burned dolomite from limestone, dolomite shells, or other substances. For a detailed list of products of industry 3274, refer to table 6A, products codes 3274011 to 3274000.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Lime Industry totaled \$164 million. This amount included shipments of lime (primary products) valued at \$129 million, shipments of other products (secondary products) valued at \$28 million, and miscellaneous receipts at \$8 million.

This industry's shipments of lime represented 82 percent of its total product shipments. The industry specialization ratio in 1958 was 83 percent. Secondary products shipped by this industry in 1963 consisted mainly of crushed and broken limestone, \$17 million.

Shipments of lime by this industry represented 94 percent of all shipments of these products (\$137 million) by all industries. In 1958, the coverage ratio was 95 percent.

The production index for the primary products of the industry increased to 123 in 1963 from the 1958 level of 111. The unit value index for 1963 was 119 compared to 108 in 1958. Both indexes were computed on a basis of 1954 = 100.

In its annual report, Minerals Yearbook, the U.S. Department of the Interior, Bureau of Mines, publishes detailed figures on the products listed in table 6A of this report. The variations between Bureau of Mines summary totals and the data appearing in this report are due to (1) inclusion of cost of containers and interplant transfers in Census Bureau figures and (2) differences in the reports submitted to the two agencies by individual companies.

#### 3275--GYPSUM PRODUCTS

This industry comprises establishments primarily engaged in manufacturing plaster, plasterboard, and other products composed wholly or chiefly of gypsum. For a detailed list of products of industry 3275, refer to table 6A, product codes 3275111 to 3275000.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Gypsum Products Industry totaled \$425 million. This amount included shipments of gypsum products (primary products) valued at \$396 million, shipments of other products (secondary products) valued at \$13 million, and miscellaneous receipts at \$17 million.

This industry's shipments of gypsum products represented 97 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent.

Shipments of gypsum products by this industry represented 98 percent of all shipments of these products (\$405 million) by all industries. In 1958, the coverage ratio was also 98 percent.



The U.S. Department of the Interior, Bureau of Mines, in its annual Minerals Yearbook publishes more detailed data on the production, shipment, and consumption of gypsum and gypsum products. The variation between the two sets of data is due primarily to (1) inclusion of cost of containers and interplant transfers in Census Bureau figures and (2) differences in the reports from individual companies submitted to the two agencies.

#### 3281--CUT STONE AND STONE PRODUCTS

This industry comprises establishments primarily engaged in cutting, shaping, and finishing marble, granite, slate, and other stone for building and miscellaneous uses. Establishments primarily engaged in buying or selling partly finished monuments and tombstones, but performing no work on the stones other than lettering, finishing, or shaping to custom order, are classified in trade industries. The cutting of grindstones, pulpstones, and whetstones at the quarry is classified in mining industries. For a detailed list of products of industry 3281, refer to table 6A, product codes 3281111 to 3281000.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

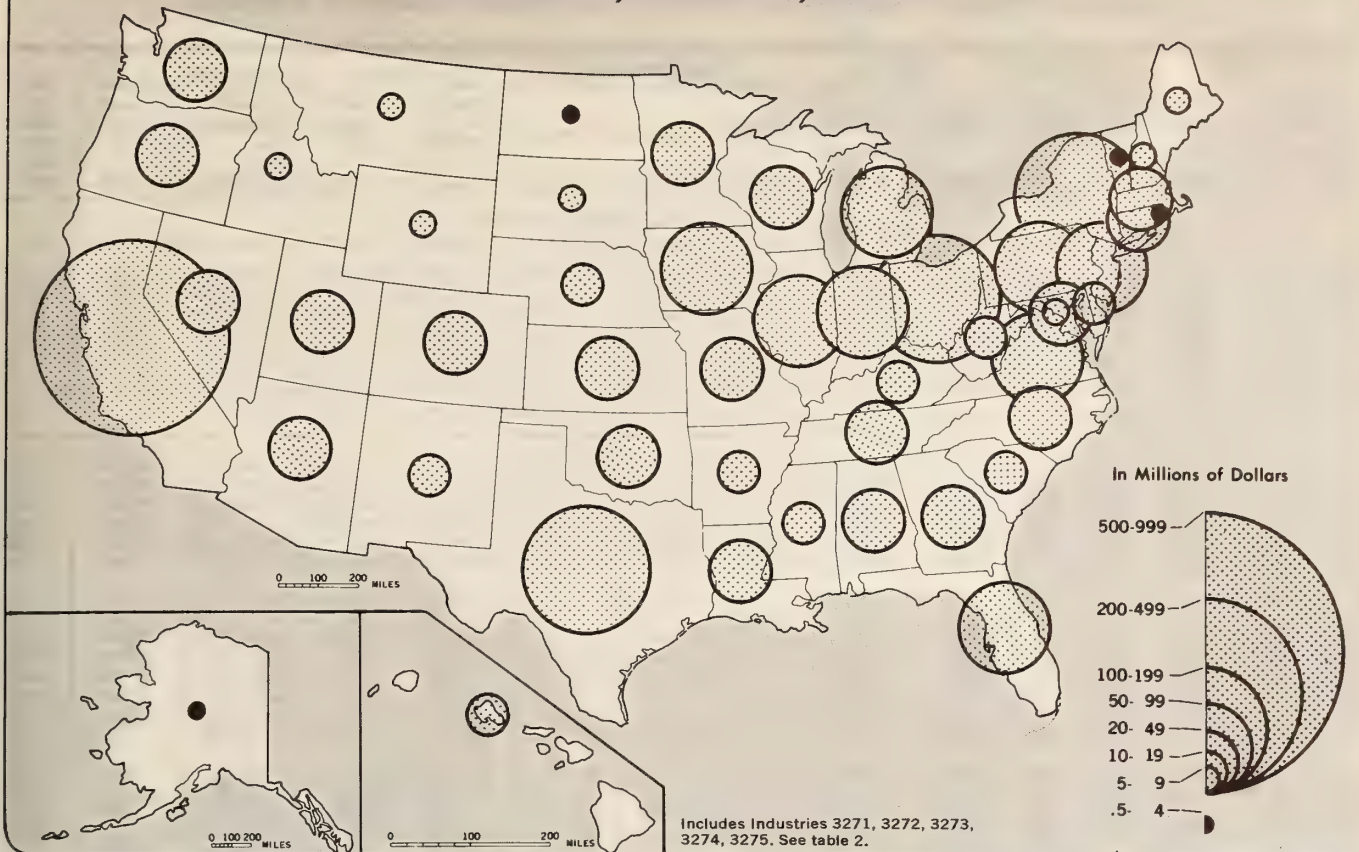
Value of shipments and other receipts of the Cut Stone and Stone Products Industry totaled \$217 million. This amount included shipments of cut stone and stone products (primary products) valued at \$190 million, shipments of other products (secondary products) valued at \$12 million, and miscellaneous receipts (mainly resales), at \$15 million.

This industry's shipments of cut stone and stone products represented 94 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent. Secondary products shipped by this industry in 1963 consisted mainly of other rough dimension stone, \$3 million, and rough dimension limestone, \$2 million.

Shipments of cut stone and stone products by this industry represented 99 percent of all shipments of these products (\$191 million) by all industries. In 1958 the coverage ratio was 97 percent.

# CONCRETE AND PLASTER PRODUCTS: SIC 327

Value Added by Manufacture by State: 1963

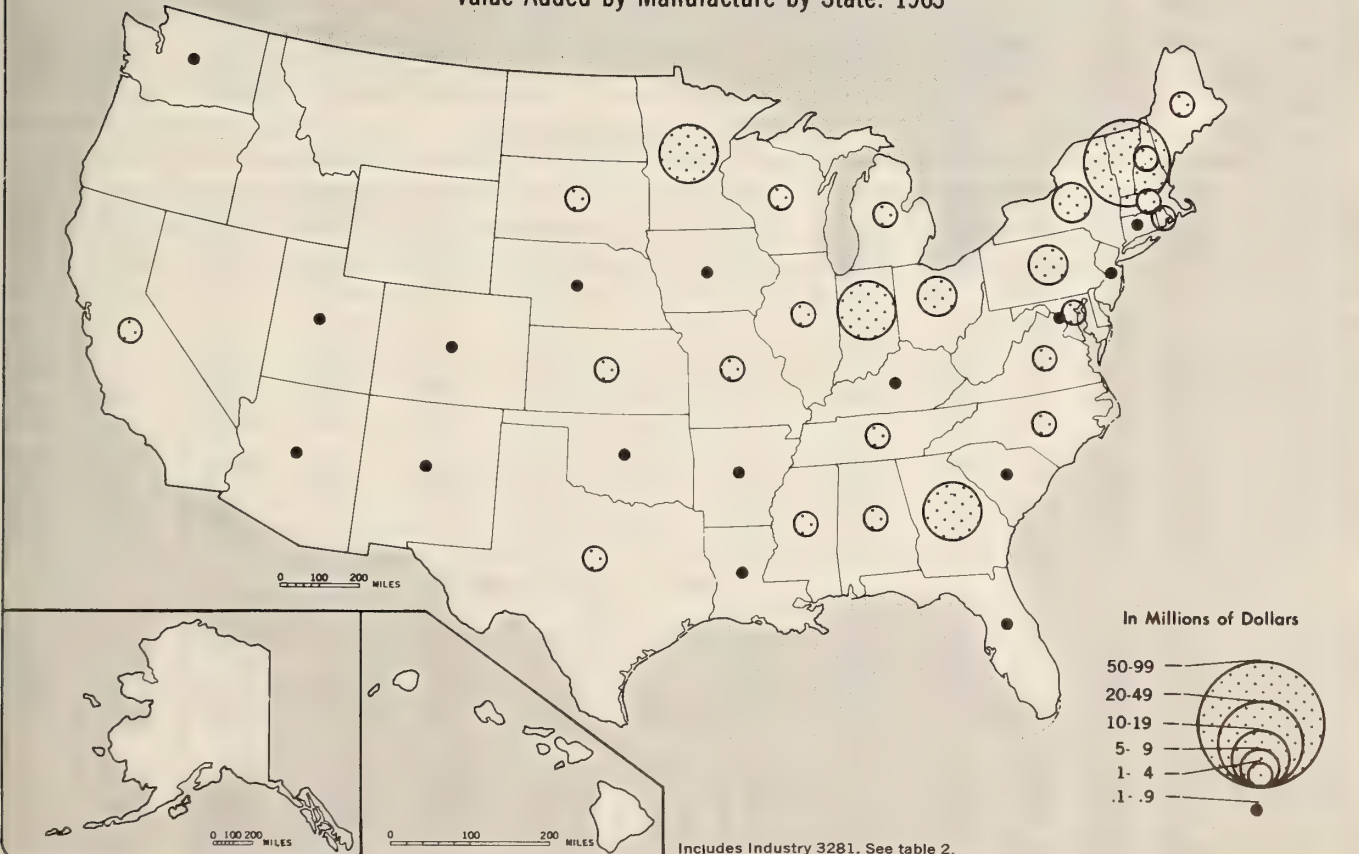


U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

# CUT STONE AND STONE PRODUCTS: SIC 328

Value Added by Manufacture by State: 1963



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS



TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spec- ializa- tion ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3271.—CONCRETE BLOCK AND BRICK														
1963.....	1,786	1,841	367	23,759	119,543	16,702	36,081	72,748	245,525	262,765	505,194	31,143	92	84
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,282	110,662	16,234	37,437	67,431	215,265	243,604	459,135	20,512	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,201	110,571	16,957	37,749	67,047	214,388	247,721	460,687	21,171	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,906	111,787	17,574	38,120	68,138	212,391	246,843	457,423	24,757	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,517	106,124	17,381	37,386	66,368	221,416	240,204	458,782	22,921	(NA)	(NA)
1958 <sup>2</sup> .....	1,763	1,796	336	22,766	98,103	16,404	32,933	61,292	190,355	224,333	413,670	22,790	90	83
INDUSTRY 3272.—OTHER CONCRETE PRODUCTS														
1963.....	3,130	3,451	716	52,297	266,706	41,093	87,256	190,945	539,967	387,389	925,677	43,550	94	94
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	49,322	241,822	39,331	85,582	173,417	499,465	373,454	871,625	36,824	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	47,939	222,905	38,069	83,145	156,310	470,871	354,891	822,442	(36,258)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	48,637	222,384	39,023	(85,637)	157,486	460,181	366,627	822,538	32,308	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	47,163	211,791	38,021	79,284	150,895	438,281	358,595	795,168	38,884	(NA)	(NA)
1958 <sup>2</sup> .....	3,190	3,461	619	46,283	200,231	36,267	73,567	141,575	391,366	332,224	720,111	44,310	94	94
Sum of above industries:														
1958 <sup>3</sup> (old).....	4,947	5,251	952	68,948	297,986	52,587	106,869	202,611	580,733	555,858	1,132,213	70,072	(NA)	(NA)
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	69,866	271,692	53,667	111,183	184,923	660,042	503,591	1,071,914	48,389	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	69,986	266,468	54,248	114,030	183,035	674,878	427,210	1,071,511	51,772	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	66,270	238,286	51,680	106,210	163,387	507,748	392,214	867,371	47,155	(NA)	(NA)
1954.....	4,879	5,090	774	60,410	216,954	46,659	96,707	146,075	418,569	399,643	813,230	40,548	99	99
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	59,200	208,016	47,725	99,961	150,446	398,552	309,833	708,385	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	66,444	222,674	53,526	116,729	169,591	432,615	358,681	791,296	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	65,107	210,116	51,676	115,299	155,122	413,074	321,429	734,503	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	60,886	175,879	48,658	104,064	130,125	336,064	270,611	606,677	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	53,787	136,723	44,293	94,764	102,734	245,290	219,324	464,614	(NA)	(NA)	(NA)
1947.....	(NA)	6,158	513	46,821	106,484	41,537	89,031	88,471	202,789	126,945	329,734	35,692	99	99
1939.....	(NA)	1,892	(NA)	(NA)	(NA)	15,455	(NA)	16,324	55,372	48,188	103,560	(NA)	(NA)	(NA)
INDUSTRY 3273.—READY MIXED CONCRETE														
1963.....	3,999	4,621	1,021	71,523	410,539	46,110	96,228	244,955	981,997	1,308,030	2,292,504	106,010	92	98
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	(66,725)	(381,693)	(48,045)	(99,223)	(245,317)	786,540	1,160,341	1,953,719	91,486	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	(65,339)	(360,754)	(45,836)	(96,252)	(228,460)	751,644	1,137,181	1,889,266	75,910	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	(64,829)	(344,471)	(46,751)	(96,864)	(214,293)	770,850	1,101,071	1,869,059	70,315	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	(67,648)	(345,075)	(47,956)	(96,174)	(215,091)	770,193	1,134,484	1,903,000	83,129	(NA)	(NA)
1958 <sup>4</sup> .....	3,130	3,657	949	62,116	303,111	44,203	88,351	201,971	679,385	1,008,814	1,687,151	71,603	92	97
INDUSTRY 3274.—LIME														
1963.....	81	125	68	6,778	38,903	5,384	11,366	28,519	95,135	69,011	164,366	14,730	82	94
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,922	38,624	5,656	11,432	29,219	96,795	60,282	155,901	(11,964)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,200	38,253	5,956	11,767	28,715	99,689	58,284	156,970	7,019	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,566	39,032	6,153	12,398	29,095	97,827	60,113	156,729	(12,052)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,362	36,298	6,234	13,083	28,126	91,702	65,587	157,666	(12,663)	(NA)	(NA)
1958.....	95	137	76	7,185	32,754	6,098	12,509	25,521	73,597	57,514	130,948	6,362	83	95
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,309	38,552	7,053	15,431	31,034	85,512	73,859	158,115	(S)	89	98
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,344	36,950	7,139	15,701	29,850	82,011	68,631	150,169	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,261	33,514	7,084	15,380	27,153	78,644	58,500	135,189	(S)	(NA)	(NA)
1954.....	113	145	81	7,989	30,645	6,835	14,456	24,454	57,986	54,868	112,854	4,835	84	97
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,935	30,788	6,773	14,744	24,886	63,416	54,187	117,603	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,045	26,591	6,903	14,791	21,151	54,943	49,682	104,625	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,933	26,302	6,773	15,539	21,186	55,863	49,383	105,246	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,316	23,011	6,335	14,023	18,607	48,370	42,753	91,105	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,514	21,451	6,336	13,777	17,129	40,705	42,365	83,070	(NA)	(NA)	(NA)
1947.....	(NA)	172	94	7,009	18,767	6,129	14,200	15,516	39,253	33,589	72,842	10,745	93	97
1939.....	(NA)	316	(NA)	(NA)	(NA)	6,708	(NA)	6,688	18,574	24,901	43,475	(NA)	(NA)	(NA)
INDUSTRY 3275.—GYPSUM PRODUCTS														
1963.....	60	122	72	11,491	70,335	9,216	20,766	54,455	259,659	164,445	425,108	15,201	97	98
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,883	68,127	9,520	20,675	51,940	242,248	164,963	406,356	32,200	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,465	63,578	9,187	19,875	48,289	224,654	154,180	375,167	25,184	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,229	64,562	9,774	21,029	48,996	228,505	157,303	382,087	25,214	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,301	65,890	10,089	22,606	52,085	241,017	170,986	410,569	21,977	(NA)	(NA)
1958.....	74	126	63	11,502	57,978	9,447	20,606	45,412	218,042	146,609	364,947	12,095	95	98
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,181	54,251	9,243	20,617	43,064	181,900	126,962	305,244	12,181	99	98
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,388	57,823	10,419	23,334	46,360	192,324	138,875	324,983	38,966	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,060	56,555	10,252	24,304	46,520	193,971	139,354	329,869	38,698	(NA)	(NA)
1954.....	48	90	56	10,966	48,639	9,278	21,927	39,715	165,271	130,326	295,564	10,227	95	98
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,901	43,174	8,068	19,472	33,453	138,311	114,991	253,302	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,586	35,811	7,160	18,123	29,401	119,883	103,650	223,533	(NA)	(NA)	(NA)

See footnotes at end of table.

TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
	INDUSTRY 3275.—GYPSUM PRODUCTS—Continued													
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,646	37,133	8,332	19,235	29,578	120,944	113,022	233,966	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,979	33,378	7,979	19,630	28,684	124,070	79,514	203,584	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,720	27,341	7,438	16,788	21,469	92,203	74,573	166,776	(NA)	(NA)	(NA)
1947.....	(NA)	73	50	7,472	21,384	6,543	15,552	17,911	67,879	59,664	127,543	24,386	97	98
1939.....	(NA)	68	(NA)	5,863	8,541	4,936	(NA)	6,666	29,548	16,694	46,242	(NA)	(NA)	(NA)
1937.....	(NA)	79	(NA)	5,859	8,016	5,207	(NA)	6,591	25,936	16,681	42,617	(NA)	(NA)	(NA)
1935.....	(NA)	72	(NA)	3,894	4,513	3,382	(NA)	3,444	17,367	8,921	26,288	(NA)	(NA)	(NA)
	INDUSTRY 3281.—CUT STONE AND STONE PRODUCTS													
1963.....	857	893	211	18,340	85,745	15,259	30,896	66,657	131,465	86,633	217,176	6,693	94	99
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	(21,296)	(93,668)	(17,678)	(36,500)	(75,484)	(150,327)	(84,314)	(232,114)	(4,912)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	(21,860)	(93,559)	(18,127)	(37,048)	(75,115)	(149,303)	(83,794)	(228,973)	(5,458)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,456	82,460	16,067	31,837	64,784	134,328	82,196	215,790	(3,379)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,679	81,425	16,423	32,951	61,679	131,647	79,781	211,506	(5,439)	(NA)	(NA)
1958.....	959	1,001	243	20,348	83,038	16,995	33,056	63,818	129,038	77,072	206,264	8,405	95	97
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,329	83,311	18,324	35,115	63,899	140,166	76,947	215,419	(S)	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,082	84,759	19,206	37,672	66,046	141,219	76,102	212,691	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,295	82,235	19,530	37,752	64,481	137,788	70,532	206,158	(S)	(NA)	(NA)
1954 <sup>5</sup> .....	961	977	239	21,576	78,240	18,410	36,721	60,650	121,465	70,144	191,494	4,296	93	99

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>A revision in the definition of this industry was introduced in the 1957 standard industrial classification so that data for the industry prior to 1958 are not directly comparable. Industry 3271, Concrete Block and Brick, and industry 3272, Other Concrete Products, comprised one industry prior to 1958.

<sup>3</sup>Industries 3271 and 3272 were a single industry in 1957 and earlier years. They are shown combined for 1958 so that historical data may be presented. Data for Alaska and Hawaii are not included.

<sup>4</sup>The Ready Mixed Concrete Industry was included for the first time in the 1958 Census of Manufactures. No comparable figures are available for earlier years.

<sup>5</sup>Data for earlier years not comparable because dressing plants operated in conjunction with quarries were not included.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3271.—CONCRETE BLOCK AND BRICK													
Total.....	1,841	367	23,759	119,543	16,702	36,081	72,748	245,525	262,765	505,194	31,143	22,766	190,355
New England.....	92	14	1,179	7,405	825	1,859	4,356	13,387	10,930	24,221	1,832	1,058	9,516
Massachusetts....	39	4	429	2,586	308	691	1,662	5,625	4,480	10,067	1,088	492	4,914
Middle Atlantic....	306	71	4,522	24,377	3,234	7,060	15,638	46,559	58,391	104,480	7,701	4,471	39,342
New York.....	90	24	1,466	9,688	976	2,204	5,747	17,533	19,205	36,461	3,913	1,522	14,599
New Jersey.....	68	17	1,068	5,649	776	1,701	3,732	12,562	15,981	28,404	1,476	1,045	10,184
Pennsylvania.....	148	30	1,988	9,040	1,482	3,155	6,159	16,464	23,205	39,615	2,312	1,904	14,559
East North Central.	455	67	5,137	28,313	3,554	7,474	16,691	58,539	62,986	120,747	7,332	5,286	46,012
Ohio.....	109	18	1,463	7,793	1,008	2,069	4,535	15,414	17,859	33,292	2,830	1,575	13,164
Indiana.....	67	8	796	4,323	520	1,104	2,278	9,531	9,724	19,099	948	714	5,068
Illinois.....	78	11	802	4,499	580	1,172	2,887	9,080	8,109	16,979	1,009	780	7,500
Michigan.....	126	19	1,392	7,735	965	2,091	4,502	15,931	18,767	34,326	1,449	1,358	11,714
Wisconsin.....	75	11	684	3,963	481	1,038	2,489	8,583	8,527	17,051	1,096	859	8,566
West North Central.	191	26	1,865	9,717	1,279	2,836	5,760	18,850	19,167	37,762	2,025	1,876	16,410
Minnesota.....	66	7	521	3,046	373	830	1,914	5,566	5,140	10,681	643	526	4,593
Iowa.....	26	6	332	1,774	225	502	1,038	4,043	3,512	7,494	199	404	3,164
Missouri.....	42	5	360	1,673	269	531	1,102	3,131	4,314	7,381	368	413	3,370
South Dakota.....	12	3	134	657	91	212	322	1,193	872	2,034	163	100	964
Nebraska.....	13	3	257	1,442	152	388	721	2,484	2,302	4,712	423	187	1,929
Kansas.....	22	1	168	726	101	208	378	1,532	1,753	3,293	102	168	1,292
South Atlantic.....	302	95	4,792	19,703	3,382	7,515	11,586	42,834	50,320	93,082	5,582	5,023	37,142
Delaware.....	7	3	130	502	69	131	203	935	1,065	1,994	94	(2)	(2)
Virginia.....	42	18	761	3,172	560	1,232	1,867	7,276	7,455	14,855	592	674	4,255
West Virginia....	27	2	286	1,092	212	464	710	1,823	2,643	4,397	229	338	1,838
North Carolina...	58	19	907	3,330	680	1,469	2,100	7,527	9,730	17,225	797	856	5,105
South Carolina...	25	9	415	1,519	297	661	861	2,740	3,119	5,848	453	250	1,248
Georgia.....	43	14	725	2,760	515	1,138	1,708	6,240	8,078	14,284	818	516	3,528
Florida.....	67	15	853	3,588	540	1,251	1,911	7,865	8,261	16,104	611	(2)	(2)
East South Central.	149	26	1,925	7,080	1,418	3,007	4,320	15,148	16,296	31,175	1,694	1,366	8,971
Kentucky.....	47	6	516	1,895	387	818	1,158	3,927	4,614	8,465	427	(2)	(2)
Tennessee.....	57	11	831	3,062	580	1,232	1,695	7,039	6,771	13,674	820	566	3,566
Alabama.....	29	8	427	1,699	340	732	1,184	3,288	3,747	6,966	294	375	2,618
Mississippi.....	16	1	151	424	111	225	283	894	1,164	2,070	153	(2)	(2)
West South Central.	110	20	1,261	5,122	921	2,099	3,327	12,178	12,792	24,846	1,100	1,203	9,126
Louisiana.....	13	2	148	611	97	222	321	1,485	1,761	3,250	77	183	1,448
Texas.....	57	14	753	3,120	525	1,190	1,882	7,255	6,883	13,977	524	745	5,350
Mountain.....	92	19	1,374	6,958	926	1,859	4,407	16,063	12,642	28,096	1,750	1,193	10,841
New Mexico.....	15	4	260	1,156	181	379	716	1,968	2,592	4,456	248	259	2,025
Arizona.....	16	3	286	1,630	187	371	1,047	6,091	2,832	8,659	776	240	2,857
Utah.....	8	2	178	761	107	237	420	1,216	988	2,110	13	126	667
Nevada.....	7	3	164	1,052	131	255	832	2,246	1,774	3,946	136	(2)	(2)
Pacific.....	144	29	1,704	10,868	1,163	2,372	6,663	21,967	19,241	40,794	2,127	1,290	12,995
California.....	101	20	1,191	7,722	817	1,676	4,760	16,607	13,189	29,455	1,678	958	10,302
INDUSTRY 3272.—OTHER CONCRETE PRODUCTS													
Total.....	3,451	716	52,297	266,706	41,093	87,256	190,945	539,967	387,389	925,677	43,550	46,283	391,366
New England.....	161	25	2,139	11,713	1,650	3,643	8,327	24,130	15,649	39,378	2,314	1,627	14,697
Maine.....	9	1	101	424	83	175	304	1,030	588	1,487	140	(2)	(2)
New Hampshire....	19	2	162	758	105	232	453	1,343	1,012	2,302	154	(2)	(2)
Massachusetts....	68	13	1,090	6,266	859	1,932	4,583	13,055	8,473	21,164	919	690	6,025
Rhode Island.....	13	3	145	762	114	262	620	1,496	932	2,470	96	115	1,149
Connecticut.....	47	6	619	3,404	471	1,004	2,292	7,007	4,526	11,611	991	520	4,362
Middle Atlantic....	446	104	6,586	36,791	5,090	10,811	25,852	71,094	45,341	116,351	4,862	6,769	59,521
New York.....	174	41	2,168	13,323	1,688	3,611	9,761	26,173	15,388	42,082	1,620	2,404	20,197
New Jersey.....	76	29	2,023	11,953	1,491	3,229	7,675	24,607	15,255	39,053	1,521	2,024	20,083
Pennsylvania.....	196	34	2,395	11,515	1,911	3,971	8,416	20,314	14,698	35,216	1,721	2,341	19,241
East North Central.	805	129	9,707	56,303	7,589	16,221	40,083	116,419	75,268	192,094	8,184	9,396	91,081
Ohio.....	202	34	2,764	15,825	2,094	4,451	10,574	31,845	17,987	49,509	2,123	2,821	25,035
Indiana.....	151	15	1,199	5,844	957	1,963	4,178	11,101	8,601	20,052	1,149	1,585	12,495
Illinois.....	160	36	2,539	15,597	1,985	4,264	11,304	31,006	20,378	51,189	1,706	2,344	25,388
Michigan.....	184	24	1,923	10,960	1,518	3,191	8,031	28,064	17,436	46,231	2,138	1,781	18,904
Wisconsin.....	108	20	1,282	8,077	1,035	2,352	5,996	14,403	10,866	25,113	1,068	865	9,259
West North Central.	352	57	4,464	21,985	3,533	7,667	15,964	43,811	30,847	74,676	3,539	4,181	35,045
Minnesota.....	102	19	1,402	7,495	1,109	2,428	5,516	15,080	10,381	25,331	1,202	1,428	13,529
Iowa.....	89	13	970	5,076	760	1,726	3,470	10,115	7,177	17,166	812	763	6,374
Missouri.....	86	13	795	3,739	614	1,325	2,795	7,276	4,359	11,844	558	899	6,652
North Dakota.....	11	2	135	695	114	216	493	1,250	1,182	2,433	50	154	1,225
Nebraska.....	19	3	526	1,810	465	942	1,554	3,317	2,607	6,097	448	398	1,956

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
INDUSTRY 3272.—OTHER CONCRETE PRODUCTS—Continued													
South Atlantic.....	626	153	11,084	46,298	8,848	18,840	32,784	98,537	81,845	181,043	9,036	9,573	67,330
Maryland.....	55	18	1,325	6,716	1,087	2,311	4,954	16,621	11,670	28,470	1,370	933	9,532
Virginia.....	70	23	2,087	9,458	1,738	3,840	7,006	20,021	18,296	38,133	1,738	1,288	10,390
West Virginia....	13	5	221	959	180	361	700	1,811	1,317	3,531	(D)	274	1,949
North Carolina...	76	24	1,416	5,651	1,128	2,403	3,658	9,984	9,010	18,762	1,576	1,034	6,611
South Carolina...	44	10	609	2,302	498	1,040	1,692	5,951	5,033	10,928	345	626	5,254
Georgia.....	95	17	1,317	4,975	1,025	2,151	3,350	11,649	8,858	20,486	1,402	1,106	7,843
Florida.....	259	52	3,905	15,407	3,038	6,422	10,859	30,703	26,582	57,672	2,213	4,167	24,934
East South Central.	208	48	3,020	11,361	2,447	4,964	7,794	27,313	20,903	48,220	1,850	2,801	23,084
Kentucky.....	44	5	417	1,686	337	659	1,239	3,610	2,920	6,634	265	( <sup>2</sup> )	( <sup>2</sup> )
Tennessee.....	58	16	1,137	4,630	903	1,852	2,902	9,818	8,458	18,554	772	1,043	8,162
Alabama.....	79	13	920	3,127	733	1,478	2,142	7,104	5,248	12,220	523	1,015	7,696
Mississippi.....	27	14	546	1,918	474	975	1,511	6,781	4,277	10,812	290	( <sup>2</sup> )	( <sup>2</sup> )
West South Central.	306	81	5,833	24,406	4,580	10,043	17,251	51,748	42,885	94,473	4,853	4,388	32,638
Arkansas.....	22	6	293	1,007	263	567	850	2,000	1,993	3,968	265	223	1,587
Louisiana.....	67	9	963	4,219	824	1,885	3,379	9,461	7,716	17,134	1,061	872	6,608
Oklahoma.....	31	6	434	2,150	327	748	1,440	4,481	3,005	7,557	1,054	312	2,484
Texas.....	186	60	4,143	17,030	3,166	6,843	11,582	35,806	30,171	65,814	2,473	2,981	21,959
Mountain.....	141	34	2,392	13,745	1,942	4,025	10,146	25,326	18,508	42,777	1,992	1,721	13,343
Montana.....	11	3	174	936	142	245	706	1,839	1,206	3,191	104	( <sup>2</sup> )	( <sup>2</sup> )
Idaho.....	9	4	143	859	112	252	561	1,497	1,407	2,727	89	250	2,093
Colorado.....	45	8	688	3,816	542	1,133	2,761	7,614	4,398	11,546	740	512	2,029
Arizona.....	31	6	517	3,046	449	901	2,465	5,309	4,491	8,908	381	294	2,513
Utah.....	20	7	544	3,191	452	962	2,323	5,184	3,622	9,009	371	468	4,123
Pacific.....	406	85	7,072	44,104	5,414	11,042	32,744	81,589	56,143	136,665	6,920	5,827	54,627
Washington.....	83	15	1,360	8,485	1,097	2,172	6,565	14,385	10,780	24,459	1,877	1,011	8,399
Oregon.....	46	5	567	3,296	430	877	2,358	7,592	4,431	12,209	473	509	5,780
California.....	270	61	4,946	31,080	3,732	7,671	22,938	57,613	39,078	96,164	4,337	4,206	39,460
INDUSTRY 3273.—READY MIXED CONCRETE													
Total.....	4,621	1,021	71,523	410,539	46,110	96,228	244,955	981,997	1,308,030	2,292,504	106,010	62,116	679,385
New England.....	154	46	2,723	17,734	1,815	3,792	10,435	47,018	47,058	94,167	4,874	2,371	31,931
Maine.....	20	9	398	1,816	282	621	1,136	3,754	3,457	7,220	450	254	1,874
New Hampshire....	13	1	152	812	82	165	426	2,310	2,542	4,841	414	107	1,020
Vermont.....	6	3	148	909	113	275	594	1,848	1,424	3,272	420	( <sup>2</sup> )	( <sup>2</sup> )
Massachusetts....	57	17	1,065	7,593	660	1,421	4,288	20,339	20,847	41,289	1,871	1,014	17,203
Rhode Island.....	10	3	130	687	73	143	377	1,504	2,256	3,773	152	156	1,722
Connecticut.....	48	13	830	5,917	605	1,167	3,614	17,263	16,532	33,772	1,567	807	9,682
Middle Atlantic....	505	119	8,739	58,491	5,581	11,522	36,268	132,719	161,830	294,477	16,270	8,265	97,950
New York.....	214	43	3,543	26,781	2,128	4,061	16,091	54,274	70,591	125,070	6,712	3,128	37,933
New Jersey.....	90	28	2,146	15,025	1,325	3,126	9,079	35,465	42,843	78,097	2,869	1,942	23,977
Pennsylvania.....	201	48	3,050	16,685	2,128	4,335	11,098	42,980	48,396	91,310	6,689	3,195	36,040
East North Central.	1,016	178	12,612	82,045	7,727	16,145	45,795	191,514	266,147	460,428	18,388	12,190	145,322
Ohio.....	247	49	3,499	22,872	2,016	4,138	11,846	53,073	74,218	127,274	4,771	3,567	43,149
Indiana.....	148	27	1,987	12,375	1,177	2,465	6,288	26,548	37,279	63,782	2,963	1,826	18,235
Illinois.....	268	40	3,003	19,995	1,948	4,282	12,245	48,571	70,914	119,580	3,744	2,953	41,277
Michigan.....	220	36	2,545	16,867	1,616	3,319	10,180	41,733	51,593	96,098	4,295	2,507	27,877
Wisconsin.....	133	26	1,578	9,936	970	1,941	5,236	21,589	32,143	53,694	2,615	1,337	14,784
West North Central.	595	76	6,140	34,245	4,311	8,972	22,316	82,071	115,031	197,066	8,263	5,867	69,188
Iowa.....	149	11	1,078	5,964	766	1,607	4,048	15,225	22,204	37,464	1,554	994	11,540
Missouri.....	126	24	1,880	10,863	1,408	2,861	7,787	23,866	34,095	57,962	2,761	2,154	25,264
North Dakota.....	16	1	131	702	77	152	370	1,667	2,672	4,341	189	( <sup>2</sup> )	( <sup>2</sup> )
South Dakota.....	34	4	268	1,246	211	394	864	3,524	5,341	8,825	535	152	1,532
Kansas.....	87	13	913	4,927	554	1,182	2,814	10,806	15,362	26,142	1,018	848	10,824
South Atlantic.....	571	201	11,806	54,027	7,815	16,750	32,522	138,203	187,638	325,701	16,512	9,737	88,512
Delaware.....	12	4	284	1,426	245	491	1,146	3,688	4,465	8,175	471	297	3,152
Maryland.....	53	17	920	5,093	503	1,065	2,287	14,151	18,315	32,584	1,388	791	6,302
District of Columbia.....	4	4	414	2,887	318	664	1,874	6,375	9,314	15,690	1,140	366	2,754
Virginia.....	88	27	1,688	8,035	1,381	2,958	6,048	23,065	29,111	52,212	3,177	1,267	14,938
West Virginia....	26	8	477	2,319	327	668	1,510	4,975	6,932	11,895	597	( <sup>2</sup> )	( <sup>2</sup> )
North Carolina...	92	25	1,454	6,025	947	2,020	3,509	14,725	21,127	35,853	2,038	1,174	9,133
South Carolina...	49	10	684	2,488	504	1,081	1,709	5,932	9,326	15,234	1,299	501	4,612
Georgia.....	85	34	1,919	7,384	1,382	2,802	4,849	16,805	26,417	42,817	2,250	( <sup>2</sup> )	( <sup>2</sup> )
Florida.....	163	72	3,966	18,370	2,208	5,001	9,590	48,487	62,631	111,241	4,152	3,696	35,227
East South Central.	306	53	4,586	19,928	2,945	6,202	11,584	51,622	68,675	119,723	6,214	3,397	30,188
Kentucky.....	83	10	980	4,920	555	1,135	2,458	11,852	16,840	28,730	1,314	836	6,450
Tennessee.....	87	18	1,532	6,553	998	2,197	4,020	18,088	24,552	42,124	1,972	940	10,654
Alabama.....	76	18	1,304	5,431	861	1,759	3,270	14,336	16,472	30,732	2,019	872	8,088
Mississippi.....	60	7	770	3,024	531	1,111	1,836	7,346	10,811	18,137	909	749	4,996

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3273.—READY MIXED CONCRETE—Continued													
West South Central.	515	109	8,566	39,300	5,921	13,375	25,198	100,932	161,214	261,952	12,081	7,074	71,093
Arkansas.....	60	8	612	2,388	452	938	1,696	7,041	8,484	15,528	650	(2)	(2)
Louisiana.....	74	21	1,352	5,837	915	1,850	3,440	13,975	25,011	38,758	1,623	(2)	(2)
Oklahoma.....	97	10	1,176	5,780	760	1,684	3,724	14,883	21,209	36,073	1,312	978	9,649
Texas.....	284	70	5,426	25,295	3,794	8,903	16,338	65,033	106,510	171,593	8,496	3,967	42,109
Mountain.....	306	66	4,938	27,759	3,259	6,309	17,135	62,909	74,500	137,529	7,850	3,321	35,976
Montana.....	34	2	245	1,198	168	295	800	2,599	2,805	5,311	255	162	1,404
Idaho.....	38	4	409	2,170	311	622	1,604	4,061	5,540	9,506	449	270	2,576
Wyoming.....	25	3	247	1,377	194	383	1,002	2,921	2,597	5,520	208	171	1,645
Colorado.....	68	12	957	5,811	567	1,194	3,090	13,751	19,878	33,583	1,299	626	7,996
New Mexico.....	34	6	443	2,251	297	600	1,330	5,625	5,965	11,619	799	498	4,256
Arizona.....	48	15	1,454	7,756	1,001	1,844	5,002	16,104	15,139	31,522	2,618	843	10,188
Utah.....	39	14	677	3,497	390	762	1,979	8,152	10,891	19,046	1,027	576	6,068
Nevada.....	20	10	506	3,699	331	609	2,328	9,696	11,685	21,422	1,195	175	1,843
Pacific.....	652	173	11,413	77,010	6,736	13,161	43,702	175,009	225,937	401,461	15,558	9,894	109,225
Washington.....	95	30	1,920	12,872	1,332	2,550	8,890	24,685	25,954	50,784	2,241	1,664	18,171
Oregon.....	82	12	1,187	7,217	896	1,753	5,298	16,274	15,370	31,732	1,475	1,019	10,220
California.....	461	126	7,837	53,770	4,172	8,267	27,611	124,251	175,930	300,409	11,364	6,985	77,511
Alaska.....	10	2	118	1,041	80	167	640	2,419	2,471	4,868	255	(2)	(2)
Hawaii.....	4	3	351	2,110	256	424	1,263	7,380	6,212	13,668	223	(2)	(2)
INDUSTRY 3274.—LIME													
Total.....	125	68	6,778	38,903	5,384	11,366	28,519	95,135	69,011	164,366	14,730	7,185	73,597
Northeast.....	28	11	1,623	10,147	1,260	2,649	7,080	18,669	15,245	33,955	1,810	1,484	13,595
East North Central.	27	17	1,856	11,486	1,312	2,820	7,634	32,302	25,296	57,610	4,804	2,214	27,317
Ohio.....	14	9	1,479	9,232	990	2,095	5,642	24,153	16,507	40,658	4,190	1,787	21,523
West North Central.	9	5	952	5,215	814	1,630	4,102	12,675	8,041	20,772	967	1,234	12,656
South.....	37	25	1,712	8,124	1,453	3,123	6,480	20,033	14,003	34,055	2,627	1,643	13,843
Texas.....	7	5	441	1,895	375	842	1,473	4,416	4,052	8,453	878	435	3,906
Mountain.....	13	5	335	2,062	286	602	1,711	7,429	3,352	10,798	270	290	2,818
Utah.....	3	2	113	707	98	191	593	1,861	952	2,810	48	(2)	(2)
Pacific.....	11	5	300	1,869	259	542	1,512	4,027	3,074	7,176	4,252	320	3,368
INDUSTRY 3275.—GYPSUM PRODUCTS													
Total.....	122	72	11,491	70,335	9,216	20,766	54,455	259,659	164,445	425,108	15,201	11,502	218,042
Northeast.....	25	12	2,337	14,976	1,865	4,219	11,512	46,903	31,906	78,607	3,331	2,844	46,053
East North Central.	17	12	1,721	10,261	1,381	2,970	7,795	41,771	24,379	66,808	915	2,126	38,634
Ohio.....	5	3	458	2,774	378	827	2,174	10,174	5,463	15,935	125	652	8,996
West North Central.	10	7	1,352	7,802	1,109	2,470	6,181	33,010	15,617	48,724	1,654	1,322	28,289
South.....	37	22	3,462	19,776	2,741	6,222	15,068	79,485	49,929	129,743	5,107	3,039	66,393
Texas.....	12	7	1,099	6,256	860	1,970	4,801	26,420	15,696	42,184	1,166	1,149	27,190
Mountain.....	13	10	1,230	8,176	1,012	2,391	6,664	24,994	18,563	43,683	1,735	974	17,136
Pacific.....	20	9	1,389	9,344	1,108	2,494	7,235	33,496	24,051	57,543	2,459	1,197	21,537
INDUSTRY 3281.—CUT STONE AND STONE PRODUCTS													
Total.....	893	211	18,340	85,745	15,259	30,896	66,657	131,456	86,633	217,176	6,693	20,348	129,038
New England.....	153	43	3,930	19,732	3,330	6,917	15,908	31,521	21,031	52,112	1,574	4,725	29,224
Maine.....	10	4	236	1,028	217	421	941	1,019	423	1,441	22	(2)	(2)
New Hampshire....	5	3	225	1,231	195	417	995	1,773	2,115	3,887	313	(2)	(2)
Vermont.....	100	29	2,830	13,746	2,437	5,119	11,489	22,669	14,899	37,161	1,106	3,540	21,334
Massachusetts.....	23	5	490	2,933	366	754	1,973	4,353	2,073	6,358	107	704	5,051
Middle Atlantic....	163	25	1,839	8,990	1,536	3,011	7,132	13,693	11,690	25,234	633	2,107	15,872
New York.....	83	12	858	4,542	682	1,278	3,447	7,563	7,168	14,591	304	856	7,936
New Jersey.....	14	2	103	540	79	148	404	654	733	1,380	22	161	1,390
Pennsylvania.....	66	11	878	3,908	775	1,585	3,281	5,476	3,789	9,263	307	1,090	6,546
East North Central.	178	45	3,832	19,432	3,241	6,473	15,401	29,109	14,877	43,955	1,184	(2)	(2)
Indiana.....	45	21	1,989	9,465	1,759	3,469	7,965	13,985	6,168	20,141	648	2,361	14,251
Illinois.....	39	9	448	2,782	326	679	1,878	3,946	2,729	6,638	116	634	5,020
Wisconsin.....	34	7	426	2,467	359	744	1,981	3,899	2,090	5,964	141	575	3,611
West North Central.	78	27	2,878	14,371	2,211	4,861	9,564	20,346	16,149	36,595	659	(2)	(2)
Minnesota.....	31	18	1,810	9,400	1,365	3,017	6,206	12,939	10,687	23,577	264	1,780	12,868
Missouri.....	18	3	594	2,595	492	1,088	1,888	3,877	3,369	7,409	195	580	3,774
Kansas.....	13	2	203	831	167	345	590	1,304	1,091	2,397	117	275	1,783

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
												(number)	(\$1,000)
INDUSTRY 3281.—CUT STONE AND STONE PRODUCTS—Continued													
South.....	227	59	5,062	19,285	4,309	8,403	15,650	30,945	19,014	49,481	2,306	(2)	(2)
Maryland.....	8	3	144	778	125	244	655	1,215	744	1,979	186	(2)	(2)
Virginia.....	11	4	243	863	197	402	644	1,482	855	2,388	144	(2)	(2)
North Carolina....	18	6	499	1,789	432	753	1,408	2,570	1,773	4,306	149	641	3,235
Georgia.....	72	24	2,065	7,811	1,802	3,515	6,555	13,231	7,444	20,450	808	2,149	12,019
Tennessee.....	23	7	854	3,076	732	1,417	2,450	3,367	3,053	6,337	208	845	4,233
Alabama.....	13	3	293	1,184	250	535	1,033	1,849	667	2,511	(D)	339	2,397
Texas.....	35	7	490	2,151	360	738	1,578	3,594	2,665	6,220	131	442	2,348
West.....	94	12	799	3,935	632	1,231	3,002	5,851	3,872	9,799	337	(2)	(2)
California.....	48	10	587	3,010	463	914	2,240	4,470	3,216	7,775	237	386	3,288

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3271, Concrete Block and Brick: New England—Maine, 6 (20-99); New Hampshire, 8 (20-99); Vermont, 6 (20-99); Rhode Island, 8 (20-99); Connecticut, 25 (250-499); West North Central—North Dakota, 10 (20-99); South Atlantic—Maryland, 30 (500-999); District of Columbia, 3 (100-249); West South Central—Arkansas, 22 (184); Oklahoma, 18 (176); Mountain—Montana, 6 (20-99); Idaho, 4 (20-99); Wyoming, 9 (20-99); Colorado, 27 (250-499); Pacific—Washington, 17 (100-249); Oregon, 19 (147); Alaska, 5 (20-99); Hawaii, 2 (20-99).

SIC 3272, Other Concrete Products: New England—Vermont, 5 (20-99); West North Central—South Dakota, 13 (100-249); Kansas, 32 (250-499); South Atlantic—Delaware, 13 (100-249); District of Columbia, 1 (20-99); Mountain—Wyoming, 7 (20-99); New Mexico, 12 (210); Nevada, 6 (20-99); Pacific—Alaska, 1 (1-19); Hawaii, 6 (100-249);

SIC 3273, Ready Mixed Concrete: West North Central—Minnesota, 115 (1,000-2,499); Nebraska, 68 (500-999);

SIC 3274, Lime: New England—Vermont, 1 (1-19); Massachusetts, 3 (201); Connecticut, 1 (20-99); Middle Atlantic—New York, 2 (1-19); New Jersey, 1 (1-19); Pennsylvania, 20 (1,350); East North Central—Indiana, 1 (1-19); Illinois, 5 (240); Michigan, 2 (20-99); Wisconsin, 5 (103); West North Central—Minnesota, 1 (20-99); Iowa, 1 (20-99); Missouri, 6 (250-499); South Dakota, 1 (1-19); South Atlantic—Maryland, 2 (20-99); Virginia, 8 (250-499); West Virginia, 4 (20-99); Florida, 3 (20-99); East South Central—Tennessee, 2 (20-99); Alabama, 6 (250-499); West South Central—Arkansas, 1 (20-99); Louisiana, 3 (20-99); Oklahoma, 1 (20-99); Mountain—Montana, 2 (20-99); Colorado, 1 (1-19); New Mexico, 1 (1-19); Arizona, 3 (20-99); Nevada, 3 (20-99); Pacific—Washington, 1 (20-99); Oregon, 4 (20-99); California, 5 (100-249); Hawaii, 1 (1-19).

SIC 3275, Gypsum Products: New England—New Hampshire, 1 (100-249); Massachusetts, 3 (148); Connecticut, 1 (100-249); Middle Atlantic—New York, 11 (1,000-2,499); New Jersey, 6 (100-249); Pennsylvania, 3 (222); East North Central—Indiana, 3 (500-999); Illinois, 3 (140); Michigan, 6 (500-999); West North Central—Iowa, 5 (1,000-2,499); Missouri, 2 (1-19); Nebraska, 1 (1-19); Kansas, 2 (250-499); South Atlantic—Delaware, 1 (100-249); Maryland, 2 (250-499); Virginia, 2 (250-499); Georgia, 2 (250-499); Florida, 9 (381); East South Central—Tennessee, 2 (1-19); West South Central—Arkansas, 2 (20-99); Louisiana, 3 (250-499); Oklahoma, 2 (250-499); Mountain—Montana, 1 (20-99); Wyoming, 1 (20-99); Colorado, 1 (20-99); New Mexico, 2 (100-249); Arizona, 4 (120); Utah, 2 (100-249); Nevada, 2 (250-499); Pacific—Washington, 1 (100-249); Oregon, 1 (1-19); California, 18 (1,000-2,499).

SIC 3281, Cut Stone and Stone Products: New England—Rhode Island, 5 (106); Connecticut, 10 (20-99); East North Central—Ohio, 37 (807); Michigan, 23 (162); West North Central—Iowa, 7 (20-99); South Dakota, 2 (100-249); Nebraska, 7 (20-99); South Atlantic—District of Columbia, 1 (20-99); West Virginia, 2 (1-19); South Carolina, 7 (20-99); Florida, 11 (20-99); East South Central—Kentucky, 6 (20-99); Mississippi, 4 (100-249); West South Central—Arkansas, 8 (20-99); Louisiana, 1 (1,19); Oklahoma, 7 (20-99); Mountain—Montana, 1 (1-19); Idaho, 2 (1-19); Colorado, 8 (20-99); New Mexico, 3 (20-99); Arizona, 9 (20-99); Utah, 6 (20-99); Nevada, 2 (1-19); Pacific—Washington, 10 (20-99); Oregon, 4 (1-19); Hawaii, 1 (1-19).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.



TABLE 3. Detailed Statistics: 1963

Item	All establishments		Ready mixed concrete (SIC 3273)			Lime (SIC 3274)		
	Concrete block and brick (SIC 3271) <sup>1</sup>	Other concrete products (SIC 3272) <sup>1</sup>	Total	Subindustry		Total	Subindustry	
				Establishments with mining or quarrying activity <sup>2</sup>	Establishments without mining or quarrying activity <sup>2</sup>		Establishments with mining or quarrying activity <sup>2</sup>	Establishments without mining or quarrying activity <sup>2</sup>
Primary product specialization ratio <sup>3</sup> .....	.92	.94	.92	(NA)	(NA)	.82	(NA)	(NA)
Coverage ratio <sup>4</sup> .....	.84	.94	.98	(NA)	(NA)	.94	(NA)	(NA)
Establishments, total.....number..	1,841	3,451	4,621	238	4,383	125	58	67
With 1 to 19 employees.....do....	1,474	2,735	3,600	102	3,498	57	10	47
With 20 to 99 employees.....do....	362	650	947	112	835	47	29	18
With 100 employees or more.....do....	5	66	74	24	50	21	19	2
Proprietors and working partners.....do....	1,140	2,205	1,992	(NA)	(NA)	29	(NA)	(NA)
All employees (average for the year).....do....	23,759	52,297	71,523	9,569	61,954	6,778	5,543	1,235
Payroll (all employees), total for year.....\$1,000..	119,543	266,706	410,539	62,389	348,150	38,903	31,778	7,125
Production workers:								
Average for the year.....number..	16,702	41,093	46,110	5,928	40,182	5,384	4,378	1,006
March.....do....	14,443	36,874	40,500	5,265	35,235	5,354	4,341	1,013
May.....do....	17,437	41,313	47,340	6,061	41,279	5,465	4,447	1,018
August.....do....	18,190	44,271	49,834	6,332	43,502	5,443	4,441	1,002
November.....do....	16,841	42,024	46,847	6,053	40,794	5,270	4,281	989
Man-hours.....1,000..	36,081	87,256	96,228	12,454	83,774	11,366	9,238	2,128
January-March.....do....	7,218	18,444	19,829	2,611	17,218	2,748	2,214	534
April-June.....do....	9,526	22,542	25,149	3,255	21,894	2,841	2,309	532
July-September.....do....	10,238	23,934	26,849	3,450	23,399	2,892	2,355	537
October-December.....do....	9,099	22,336	24,401	3,138	21,263	2,885	2,360	525
Wages.....\$1,000..	72,748	190,945	244,955	36,398	208,557	28,519	22,914	5,605
Cost of materials, etc., total.....do....	262,765	387,389	1,308,030	120,085	1,187,945	69,011	48,099	20,912
Materials, parts, containers, and supplies consumed.....do....	197,172	337,280	1,155,520	106,130	1,049,390	37,149	25,233	11,916
Cost of resales.....do....	53,301	28,326	105,311	6,447	98,864	5,497	3,837	1,660
Fuels consumed.....do....	7,048	9,350	29,456	4,571	24,885	20,999	14,779	6,220
Electric energy:								
Purchased:								
Quantity.....million kw.-hrs..	199	265	506	112	395	402	320	82
Cost.....\$1,000..	4,017	4,877	10,239	2,100	8,139	4,693	3,745	948
Generated less sold.....million kw.-hrs..	(Z)	(Z)	1	(D)	(Z)	(D)	-	(D)
Contract work.....\$1,000..	1,227	7,556	7,504	837	6,667	673	505	168
Value of shipments (including resales), total.....do....	505,194	925,677	2,292,504	250,775	2,041,729	164,366	121,708	42,658
Value of resales.....do....	70,218	37,412	147,832	7,136	140,696	7,268	5,114	2,154
Value added by manufacture, adjusted.....do....	245,525	539,967	981,997	131,006	850,991	95,135	73,604	21,531
Manufacturers' inventories:								
Beginning of year, total.....do....	54,511	123,918	65,134	10,347	54,787	14,204	10,834	3,370
Finished products.....do....	46,102	79,374	28,980	5,711	23,269	3,982	3,126	856
Work-in-process.....do....	890	13,612	1,428	439	989	719	669	50
Materials, supplies, fuel, etc.....do....	7,519	30,932	34,726	4,197	30,529	9,503	7,039	2,464
End of year, total.....do....	57,990	126,083	64,453	11,146	53,307	13,979	11,135	2,844
Finished products.....do....	49,217	78,510	28,535	6,112	22,423	3,841	3,177	664
Work-in-process.....do....	872	16,154	1,463	354	1,109	640	613	27
Materials, supplies, fuel, etc.....do....	7,901	31,419	34,455	4,680	29,775	9,498	7,345	2,153
Expenditures for plant and equipment, total.....do....	33,493	48,173	117,355	15,783	101,572	15,082	9,292	5,790
New, total.....do....	31,143	43,550	106,010	13,485	92,525	14,730	9,025	5,705
New structures and additions to plant.....do....	6,132	11,918	27,759	2,373	25,386	2,108	1,364	744
New machinery and equipment.....do....	25,011	31,632	78,251	11,112	67,139	12,622	7,661	4,961
Used plant and equipment.....do....	2,350	4,627	11,345	2,298	9,047	352	267	85
Selected operating ratios:								
Payroll/Total employment.....	5,031	5,100	5,740	6,511	5,619	5,740	5,733	5,769
Production workers/Total employment.....	.70	.79	.64	.62	.65	.79	.79	.81
Man-hours/Production workers.....	2,163	2,123	2,070	2,101	2,085	2,111	2,110	2,115
Production worker wages/Man-hours.....	2.02	2.19	2.55	2.92	2.49	2.51	2.48	2.63
Cost of materials and payrolls/Total value of shipments.....	.76	.71	.75	.73	.75	.66	.66	.66
Cost of materials/Total value of shipments.....	.52	.42	.57	.48	.58	.42	.40	.49
Adjusted value added/Total employment.....	10,359	10,325	13,730	13,690	13,736	14,036	13,279	17,434
Salaries and wages/Adjusted value added.....	.49	.49	.47	.48	.41	.41	.43	.33

See footnotes at end of table.

TABLE 3. Detailed Statistics: 1963—Continued

Item	Gypsum products (SIC 3275)			Cut stone and stone products (SIC 3281)				
	Total	Subindustry		Total	Establishments dressing stone and quarrying—			Establishments dressing stone only <sup>5</sup>
		Establishments with mining or quarrying activity <sup>2</sup>	Establishments without mining or quarrying activity <sup>2</sup>		Limestone <sup>5</sup>	Granite <sup>5</sup>	Other stone <sup>5</sup>	
Primary product specialization ratio <sup>3</sup> .....	.97	(NA)	(NA)	.94	(NA)	(NA)	(NA)	(NA)
Coverage ratio <sup>4</sup> .....	.98	(NA)	(NA)	.99	(NA)	(NA)	(NA)	(NA)
Establishments, total.....number..	122	34	88	893	24	46	48	775
With 1 to 19 employees.....do....	50	-	50	682	7	16	16	643
With 20 to 99 employees.....do....	18	6	12	175	10	23	20	122
With 100 employees or more.....do....	54	28	26	36	7	7	12	10
Proprietors and working partners.....do....	36	(NA)	(NA)	558	(NA)	(NA)	(NA)	(NA)
All employees (average for the year).....do....	11,491	6,134	5,357	18,340	1,751	2,414	4,176	9,999
Payroll (all employees), total for year.....\$1,000..	70,335	36,457	33,878	85,745	8,686	11,350	17,226	48,483
Production workers:								
Average for the year.....number..	9,216	5,014	4,202	15,259	1,501	2,032	3,732	7,994
March.....do....	8,868	4,795	4,073	14,363	1,212	1,966	3,524	7,661
May.....do....	9,405	5,183	4,222	15,522	1,689	2,063	3,688	8,082
August.....do....	9,385	5,166	4,219	15,866	1,695	2,076	3,897	8,198
November.....do....	9,181	4,902	4,279	15,274	1,410	2,013	3,816	8,035
Man-hours.....1,000..	20,766	11,206	9,560	30,896	3,058	4,040	7,701	16,097
January-March.....do....	4,818	2,581	2,237	6,933	564	943	1,755	3,671
April-June.....do....	5,230	2,852	2,378	8,102	886	1,047	1,963	4,206
July-September.....do....	5,556	3,050	2,506	8,048	884	1,032	2,029	4,103
October-December.....do....	5,162	2,723	2,439	7,813	724	1,018	1,954	4,117
Wages.....\$1,000..	54,455	28,923	25,532	66,657	7,313	8,679	14,797	35,868
Cost of materials, etc., total.....do....	164,445	72,569	91,876	86,633	4,482	9,396	11,392	61,363
Materials, parts, containers, and supplies consumed.....do....	133,830	58,562	75,268	70,599	3,379	7,482	9,289	50,449
Cost of resales.....do....	11,863	(D)	(D)	6,860	360	876	1,000	4,624
Fuels consumed.....do....	11,660	5,704	5,956	1,698	(D)	297	(D)	837
Electric energy:								
Purchased:								
Quantity.....million kw.-hrs..	601	306	295	227	29	28	47	124
Cost.....\$1,000..	6,981	3,443	3,538	3,409	371	459	741	1,838
Generated less sold.....million kw.-hrs..	(D)	(D)	-	(D)	-	(D)	(D)	(D)
Contract work.....\$1,000..	111	(D)	(D)	4,067	(D)	282	(D)	3,615
Value of shipments (including resales), total.....do....	425,108	206,012	219,096	217,176	17,250	27,295	34,047	138,584
Value of resales.....do....	16,788	(D)	(D)	9,423	469	1,078	1,125	6,751
Value added by manufacture, adjusted.....do....	259,659	133,612	126,047	131,465	12,762	17,996	22,865	77,842
Manufacturers' inventories:								
Beginning of year, total.....do....	31,035	13,404	17,631	29,779	4,414	3,312	6,805	15,248
Finished products.....do....	11,604	4,430	7,174	11,861	3,051	1,236	2,231	5,343
Work-in-process.....do....	2,894	1,818	1,076	8,010	707	1,053	2,217	4,033
Materials, supplies, fuel, etc.....do....	16,537	7,156	9,381	9,908	656	1,023	2,357	5,872
End of year, total.....do....	36,456	14,758	21,698	31,199	4,412	3,384	7,141	16,262
Finished products.....do....	9,717	3,945	5,772	11,761	2,918	1,063	2,147	5,633
Work-in-process.....do....	3,777	2,472	1,305	9,032	834	1,323	2,511	4,364
Materials, supplies, fuel, etc.....do....	22,962	8,341	14,621	10,406	660	998	2,483	6,265
Expenditures for plant and equipment, total.....do....	15,263	(D)	(D)	7,676	(D)	(D)	(D)	3,958
New, total.....do....	15,201	7,275	7,926	6,693	713	744	1,682	3,554
New structures and additions to plant.....do....	4,162	1,964	2,198	1,378	(D)	(D)	(D)	1,001
New machinery and equipment.....do....	11,039	5,311	5,728	5,315	(D)	(D)	(D)	2,553
Used plant and equipment.....do....	62	(D)	(D)	983	(D)	(D)	309	404
Selected operating ratios:								
Payroll/Total employment.....	6,121	5,943	6,324	4,675	4,961	4,702	4,125	4,849
Production workers/Total employment.....	.80	.82	.78	.83	.86	.84	.89	.80
Man-hours/Production workers.....	2,253	2,235	2,275	2,025	2,037	1,988	2,064	2,014
Production worker wages/Man-hours.....	2.62	2.58	2.67	2.16	2.39	2.15	1.92	2.23
Cost of materials and payrolls/Total value of shipments....	.55	.53	.57	.79	.76	.76	.84	.79
Cost of materials/Total value of shipments.....	.39	.35	.42	.40	.26	.34	.33	.44
Adjusted value added/Total employment.....	22,597	21,782	23,529	7,168	7,288	7,454	5,475	7,785
Salaries and wages/Adjusted value added.....	.27	.27	.27	.65	.68	.63	.75	.62

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500,000 kw.-hrs.

<sup>1</sup>Less than 20 establishments (not including establishments reporting on "short forms") reported the operation of a mine or quarry in conjunction with manufacturing activity.

<sup>2</sup>Separate detailed data are not available for "small" establishments that operated mines or quarries in conjunction with manufacturing operations but reported on "short forms." These establishments are included with "Establishments without mining or quarrying activity."

<sup>3</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>4</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

<sup>5</sup>Separate detailed data are not available for approximately 80 "small" establishments that operated quarries in conjunction with dressing plants and reported on "short forms." Data for these establishments are included with "Establishments dressing stone only." The total value of shipments of these "small" establishments is less than \$7 million.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3271.—CONCRETE BLOCK AND BRICK											
Establishments.....number..	1,841	632	372	470	302	60	5	-	-	-	-
All employees:											
Total.....do.....	23,759	1,297	2,524	6,528	8,792	3,987	627	-	-	-	-
Payroll.....\$1,000..	119,543	4,637	10,701	31,607	46,386	22,182	4,030	-	-	-	-
Value added, adjusted.....do....	245,525	9,866	23,589	70,294	92,591	42,015	7,170	-	-	-	-
Value of shipments.....do....	505,194	22,264	50,706	143,733	192,435	83,600	12,456	-	-	-	-
Capital expenditures, new...do....	31,143	12,614	3,531	8,561	9,034	6,613	790	-	-	-	-
INDUSTRY 3272.—OTHER CONCRETE PRODUCTS											
Establishments.....number..	3,451	1,553	643	539	475	175	58	7	1	-	-
All employees:											
Total.....do.....	52,297	3,116	4,284	7,424	14,645	11,702	8,356	2,770	(D)	-	-
Payroll.....\$1,000..	266,706	11,293	18,322	36,413	73,960	64,694	43,419	18,605	(D)	-	-
Value added, adjusted.....do....	539,967	26,947	36,133	73,102	150,255	127,825	97,725	27,980	(D)	-	-
Value of shipments.....do....	925,677	45,633	60,630	120,813	255,259	223,494	167,621	52,227	(D)	-	-
Capital expenditures, new...do....	43,550	24,239	4,443	5,881	11,684	9,579	6,065	1,659	(D)	-	-
INDUSTRY 3273.—READY MIXED CONCRETE											
Establishments.....number..	4,621	1,407	1,067	1,126	784	163	68	5	1	-	-
All employees:											
Total.....do.....	71,523	3,241	7,252	15,449	23,178	10,662	9,659	2,082	(D)	-	-
Payroll.....\$1,000..	410,539	17,445	36,025	84,505	134,691	61,977	61,906	13,990	(D)	-	-
Value added, adjusted.....do....	981,997	59,074	101,359	213,926	318,758	134,621	131,204	23,055	(D)	-	-
Value of shipments.....do....	2,292,504	149,243	245,176	505,426	730,039	308,157	305,805	48,658	(D)	-	-
Capital expenditures, new...do....	106,010	36,657	11,381	21,175	31,750	13,315	18,341	3,391	(D)	-	-
INDUSTRY 3274.—LIME											
Establishments.....number..	125	26	14	17	25	22	16	4	1	-	-
All employees:											
Total.....do.....	6,778	40	93	252	746	1,537	2,133	1,977	(D)	-	-
Payroll.....\$1,000..	38,903	211	439	1,376	4,347	8,354	12,114	12,062	(D)	-	-
Value added, adjusted.....do....	95,135	933	1,114	3,413	12,114	20,913	29,882	26,766	(D)	-	-
Value of shipments.....do....	164,366	1,269	1,592	5,913	24,232	37,939	47,935	45,486	(D)	-	-
Capital expenditures, new...do....	14,730	3,936	(D)	(D)	890	2,885	2,759	4,260	(D)	-	-
INDUSTRY 3275.—GYPSUM PRODUCTS											
Establishments.....number..	122	39	9	2	4	14	46	8	-	-	-
All employees:											
Total.....do.....	11,491	48	99	(D)	129	1,100	7,542	2,573	-	-	-
Payroll.....\$1,000..	70,335	234	471	(D)	634	6,708	46,526	15,762	-	-	-
Value added, adjusted.....do....	259,659	632	1,786	(D)	2,004	23,520	179,319	52,398	-	-	-
Value of shipments.....do....	425,108	1,084	3,093	(D)	4,050	41,484	293,454	81,943	-	-	-
Capital expenditures, new...do....	15,201	3,106	(D)	(D)	(D)	2,374	6,360	3,361	-	-	-
INDUSTRY 3281.—CUT STONE AND STONE PRODUCTS											
Establishments.....number..	893	365	165	152	137	38	28	6	2	-	-
All employees:											
Total.....do.....	18,340	680	1,122	2,026	4,358	2,518	3,820	3,816	(D)	-	-
Payroll.....\$1,000..	85,745	2,973	4,637	9,094	21,812	12,623	16,516	18,090	(D)	-	-
Value added, adjusted.....do....	131,465	5,517	8,559	15,925	33,155	16,541	28,269	23,499	(D)	-	-
Value of shipments.....do....	217,176	9,645	14,722	27,976	57,857	27,852	41,958	37,166	(D)	-	-
Capital expenditures, new...do....	6,693	3,686	576	702	1,148	685	1,813	1,083	(D)	-	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

<sup>1</sup>Includes capital expenditures between \$1 million and \$2 million for plants under construction but not in operation.<sup>2</sup>Includes capital expenditures between \$500 thousand and \$1 million for plants under construction but not in operation.<sup>3</sup>Includes capital expenditures for plants under construction but not in operation which constitute a small proportion of the total for the size class.<sup>4</sup>Includes capital expenditures over \$3 million for plants under construction but not in operation.

**TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total <sup>1</sup>	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries <sup>1</sup>	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B+C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3271	Concrete block and brick.....1963..	505,194	395,492	35,754	73,948	92	472,419	395,492	76,927	84
	.....1958..	413,670	314,695	34,645	64,330	90	379,068	314,695	64,375	83
3272	Other concrete products.....1963..	925,677	806,609	47,771	71,297	94	861,878	806,609	55,269	94
	.....1958..	718,543	622,162	38,868	57,513	94	661,142	622,162	38,980	94
3273	Ready mixed concrete.....1963..	2,292,504	1,923,644	173,392	195,468	92	1,970,701	1,923,644	47,057	98
	.....1958..	1,681,926	1,423,544	119,517	138,865	92	1,463,569	1,423,544	40,025	97
3274	Lime <sup>2</sup> .....1963..	164,366	128,557	27,954	7,855	82	136,875	128,557	8,318	94
	.....1958..	130,948	103,663	21,516	5,769	83	108,976	103,663	5,313	95
3275	Gypsum products.....1963..	425,108	395,611	12,554	16,943	97	405,101	395,611	9,490	98
	.....1958..	364,947	336,009	16,495	12,443	95	344,244	336,009	8,235	98
3281	Cut stone and stone products.....1963..	217,176	189,655	12,696	14,825	94	190,948	189,655	1,293	99
	.....1958..	206,264	185,187	8,779	12,298	95	191,054	185,187	5,867	97

NOTE: See Introduction for an explanation of terms used.

<sup>1</sup>1958 totals shown here may differ from comparable totals in other tables because of the exclusion of 1958 data for Alaska and Hawaii from this table.

<sup>2</sup>The cost of shipping containers is included in the value of primary products for 1963. In 1958, \$3,337 thousand of shipping containers were reported separately and included in miscellaneous receipts.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)

miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Concrete block and brick (SIC 3271)	Other concrete products (SIC 3272)	Ready mixed concrete (SIC 3273)	Lime (SIC 3274)	Gypsum products (SIC 3275)	Cut stone and stone products (SIC 3281)	Crushed and broken limestone (SIC 1422)	Construction sand and gravel (SIC 1442)	Other industries
	Total shipments and receipts of the industry.....	(X)	505,194	925,677	2,292,504	164,366	425,108	217,176	(X)	(X)	(X)
327-328-	Concrete, gypsum, stone, and plaster products.....	(X)	426,177	(D)	2,001,957	129,001	395,611	(D)	(X)	(X)	(X)
32710	Concrete brick and block.....	472,419	395,492	21,931	53,051	-	-	-	(D)	(D)	1,436
32721	Concrete pipe.....	369,259	3,669	358,051	5,196	-	-	(Z)	-	-	2,314
32722	Precast concrete products.....	297,300	13,411	267,972	9,985	(D)	-	(D)	(D)	-	4,243
32723	Prestressed concrete products.....	140,939	2,881	126,593	8,339	-	-	(D)	-	-	(D)
32720	Concrete products, n.s.k.....	54,380	202	53,993	(Z)	-	-	-	-	-	120
32730	Ready mixed concrete.....	1,970,701	10,522	10,394	1,923,644	-	-	-	4,313	8,733	<sup>2</sup> 13,095
32740	Lime.....	136,875	-	-	-	128,557	-	-	(D)	-	(D)
32750	Gypsum products.....	405,101	-	(D)	1,657	(D)	395,611	-	-	-	7,519
32811	Cut granite and granite products.....	87,822	-	(D)	-	-	-	(D)	-	-	(D)
32812	Cut limestone and limestone products...	29,084	-	-	-	-	-	(D)	(D)	-	(D)
32813	Cut marble and other cut stone products	63,606	-	-	(Z)	-	-	62,623	(D)	(D)	(D)
32810	Cut stone and stone products, n.s.k....	10,436	-	-	-	-	-	(D)	-	-	(D)
	Other products.....	(X)	5,069	(D)	95,079	27,510	12,554	(D)	(X)	(X)	(X)
14222	Crushed and broken limestone.....	(X)	(D)	-	6,948	17,138	-	(D)	(X)	(X)	(X)
14292	Other crushed and broken slate, marble, etc.....	(X)	-	-	11,692	(D)	-	1,947	(X)	(X)	(X)
14420	Common sand and gravel.....	(X)	1,743	1,885	52,736	-	-	-	(X)	(X)	(X)
29510	Paving mixtures and blocks.....	(X)	(D)	2,872	14,740	-	(D)	-	(X)	(X)	(X)
32950	Minerals and earths, ground or otherwise treated.....	(X)	(D)	(D)	4,104	(D)	(D)	(D)	(X)	(X)	(X)
	Other secondary products.....	(X)	1,925	9,729	4,859	<sup>3</sup> 9,492	46,662	<sup>5</sup> 9,032	(X)	(X)	(X)
	Miscellaneous receipts.....	(X)	73,948	71,297	195,468	7,855	16,943	14,825	(X)	(X)	(X)
	Resales.....	(X)	70,218	37,412	147,832	7,268	16,788	9,423	(X)	(X)	(X)
	Other miscellaneous receipts.....	(X)	3,730	33,885	47,636	587	155	5,402	(X)	(X)	(X)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$100 thousand.

n.s.k. Not specified by kind.

<sup>1</sup>Includes \$1 million shipped by industry 3259, Structural Clay Products, N.E.C.

<sup>2</sup>Includes \$7 million shipped by industry 2951, Paving Mixtures and Blocks; \$3 million shipped by industry 1429, Crushed and Broken Stone, N.E.C. In addition industry 1423, Crushed and Broken Granite, had shipments which totaled \$2 million or more. The exact figure is withheld to avoid disclosing individual company figures.

<sup>3</sup>Includes shipments of \$2 million or more of product class 32970, Nonclay refractories. The exact amount is withheld to avoid disclosing figures for individual companies.

<sup>4</sup>Includes shipments of \$2 million or more of product class 14922, Crushed, ground, screened or dried gypsum. The exact amount is withheld to avoid disclosing figures of individual companies.

<sup>5</sup>Includes \$3 million for industry 1419, Dimension Stone, N.E.C.; \$2 million for industry 1412, Dimension Limestone, and \$2 million for industry 1429, Crushed and Broken Stone, N.E.C.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3271- --	CONCRETE BLOCK AND BRICK, TOTAL.....	.....	(X)	472,419	(X)	379,068
32710 11	Block: Lightweight aggregate (cinder, expanded slag, pumice, expanded clays, shales, slates, etc.).....	1,000 blocks (8"x8"x16" equivalent).. ..do.....	1,216,458 845,930	261,509 167,024	1,011,157 751,096	207,380 141,720
32710 15	Heavyweight aggregate.....	.....	.....	.....	.....	.....
32710 51	Brick.....	1,000 bricks..	424,112	13,434	357,253	11,425
32710 00	Concrete block and brick, n.s.k.....	.....	(X)	30,452	(X)	18,543
3272- --	CONCRETE PRODUCTS, EXCEPT BLOCK AND BRICK, TOTAL.....	.....	(X)	861,878	(X)	662,142
32721 --	Concrete pipe, total <sup>1</sup> .....	.....	(X)	369,259	(X)	294,786
32721 07	Prestressed pipe.....	1,000 lin. ft.	4,062	60,362	( <sup>1</sup> )	( <sup>1</sup> )
	Concrete pipe (except prestressed), reinforced and non-reinforced:					
	Culvert pipe:					
32721 13	Reinforced.....	..do.....	22,648	98,520	(NA)	103,050
32721 15	Nonreinforced.....	..do.....	7,960	12,346	(NA)	
	Sewer pipe:					
	Reinforced:					
32721 22	24 inches or more.....	..do.....	6,991	62,654	(NA)	72,344
32721 23	Less than 24 inches.....	..do.....	9,242	28,900	(NA)	
	Nonreinforced:					
32721 26	15 inches or more.....	..do.....	4,271	7,040	(NA)	23,532
32721 27	Less than 15 inches.....	..do.....	23,716	17,597	(NA)	
	Pressure pipe:					
	24 inches or more.....	..do.....	1,068	15,483	(NA)	64,929
32721 35	Less than 24 inches.....	.....	(S)	4,635	(NA)	
32721 41	Irrigation pipe.....	1,000 lin. ft.	11,109	10,306	(NA)	9,981
32721 98	Other concrete pipe (such as drain tile and conduits).....	..do.....	50,485	17,419	(NA)	16,799
32721 00	Concrete pipe, n.s.k.....	.....	(X)	33,997	(NA)	4,151
32722 --	Precast concrete products, total <sup>2</sup> .....	.....	(X)	297,300	(NA)	(NA)
	Roof and floor units:					
32722 13	Slabs and tile.....	1,000 tons...	569	30,616	(NA)	(NA)
32722 17	Joists and beams.....	..do.....	113	8,122	(NA)	(NA)
32722 23	Architectural wall panels.....	..do.....	303	42,549	(NA)	(NA)
32722 25	Piling, posts and poles.....	..do.....	73	2,906	(NA)	(NA)
32722 27	Cast stone (products for architectural purposes (except architectural wall panels) such as window sills, ashlar, coping, lintels and other trim).....	.....	(X)	23,117	(NA)	(NA)
32722 29	Other precast concrete construction or building products (including prefabricated housing components, reinforced columns, etc.).....	.....	(X)	32,931	(NA)	(NA)
32722 33	Burial vaults.....	Number.....	704,299	50,679	681,437	41,168
32722 35	Burial boxes.....	..do.....	167,734	6,724	135,933	3,797
32722 41	Silo staves.....	.....	(S)	15,883	(NA)	6,173
32722 61	Septic tanks.....	Number.....	335,218	28,272	(NA)	(NA)
32722 71	Dry-mixed concrete materials (including prepackaged sand, gravel and cement, mortar and cement premixes).....	Short tons....	524,463	13,011	(NA)	(NA)
32722 98	Other precast concrete products, except construction or building products (including garden furniture, storage tanks, laundry trays, grave stones, catch basin covers, shower receptors, etc.).....	.....	(X)	17,312	(X)	(NA)
32722 00	Precast concrete products, n.s.k.....	.....	(X)	25,178	(X)	(NA)
32723 --	Prestressed concrete products, except prestressed pipe, total <sup>2</sup> ....	.....	(X)	140,939	(NA)	(NA)
32723 11	Single tees, double tees and channels.....	1,000 tons...	1,001	43,510	(NA)	(NA)
32723 21	Joists, beams, girders, and piling (bearing and sheet).....	..do.....	1,096	45,681	(NA)	(NA)
32723 31	Slabs, tile and panels.....	..do.....	632	24,316	(NA)	(NA)
32723 98	Other prestressed concrete products (such as arches, columns, etc.).....	..do.....	207	11,192	(NA)	(NA)
32723 00	Prestressed concrete products, n.s.k.....	.....	(X)	16,240	(NA)	(NA)
32720 00	Concrete products, not n.s.k.....	.....	(X)	54,380	(X)	80,260
3273- --	READY MIXED CONCRETE, TOTAL.....	.....	(X)	1,970,701	(X)	1,468,569
32730 11	Ready mixed concrete:					
	Quantity reported.....	Cubic yards...	128,650,569	1,774,782	72,933,700	944,492
	Quantity not reported.....	.....	(X)	195,919	(X)	524,077

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	1963			1958		
		Production for all purposes (1,000 tons)	Total shipments, including interplant transfers		Production for all purposes (1,000 tons)	Total shipments, including interplant transfers	
			Quantity (1,000 tons)	Value (\$1,000)		Quantity (1,000 tons)	Value (\$1,000)
3274- --	LIME, TOTAL.....	(X)	(X)	136,875	(X)	(X)	112,313
32740 11	Quicklime.....	(S)	4,920	61,696	(NA)	4,669	46,735
32740 51	Hydrated lime.....	2,175	2,154	36,295	1,855	1,813	27,560
32740 71	Dead burned dolomite.....	2,259	2,072	34,689	1,812	1,777	29,611
32740 00	Lime, not specified by kind.....	(X)	(X)	4,195	(X)	(X)	5,070
95120 34	Cost of containers for lime products.....	(X)	(X)	( <sup>3</sup> )	(X)	(X)	3,337
		Unit of measure	Total shipments including interplant transfers				
			1963		1958		
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)	
3275- --	GYPSUM PRODUCTS, TOTAL.....		(X)	405,101	(X)		344,244
32751 11	Calcined gypsum building materials, building plasters and pre-fabricated building materials.....	1,000 tons....	10,846	401,738	{	9,735	333,039
32752 11	Other calcined gypsum products, industrial plasters.....	..do.....				289	6,604
32750 00	Gypsum products, n.s.k.....		(X)	3,363	(X)		4,601
3281- --	CUT STONE AND STONE PRODUCTS, TOTAL.....		(X)	190,948	(X)		191,054
32811 --	Cut granite and granite products.....		(X)	87,822	(X)		87,906
	Granite (including gneiss, syenite, and diorite), dressed dimension stone:						
	Made at quarries:						
32811 12	Building stone.....	Short tons....	89,847	10,708	{		
32811 32	Monumental stone.....	..do.....	222,238	10,338		474,000	26,116
32811 97	Other granite products, such as paving block and curbing...	..do.....	103,198	3,751			
	Not made at quarries:						
32811 11	Building stone.....	..do.....	96,553	17,941	(X)		4,131
32811 31	Monumental stone.....	..do.....	(S)	37,930	(X)		43,910
32811 98	Other granite products, such as paving block and curbing...	..do.....	(S)	1,619	(X)		3,044
32811 00	Cut granite and granite products, n.s.k.....		(X)	5,535	(X)		10,705
32812 --	Cut limestone and limestone products.....		(X)	29,084	(X)		35,073
	Limestone (including dolomite, cement rock, marl, travertine, and calcareous tufa), dressed dimension stone:						
	Made in quarries:						
32812 12	Building stone.....	Short tons....	350,139	11,754	{	424,000	11,322
32812 97	Other limestone products, such as flagging.....	..do.....	33,739	667			
	Not made in quarries:						
32812 11	Building stone.....	..do.....	214,193	13,853	(X)		17,610
32812 98	Other limestone products, such as flagging.....	..do.....	7,267	387	(X)		1,814
32812 00	Cut limestone and limestone products, n.s.k.....		(X)	2,423	(X)		4,327
32813 --	Cut marble and other cut stone products.....		(X)	63,606	(X)		55,727
	Marble, dressed dimension stone:						
	Made in quarries:						
32813 12	Building stone.....	Short tons....	63,941	10,249	{	96,185	12,252
32813 34	Other marble products, such as monumental stone.....	..do.....	34,207	7,087			
	Not made in quarries:						
32813 11	Building stone.....	..do.....	77,932	12,877	(X)		10,961
32813 33	Other marble products such as monumental stone.....	..do.....	(S)	11,386	(X)		10,735
	Other cut stone and stone products, such as slate (roofing mill stock, flagstone), sandstone, basalt, and other dressed dimension stone products:						
32813 66	Made in quarries.....	Short tons....	164,370	8,848	301,000		12,256
32813 65	Not made in quarries.....	..do.....	(S)	8,330	(X)		6,027
32813 00	Cut marble and other cut stone products, n.s.k.....		(X)	4,829	(X)		3,496
32810 00	Cut stone and stone products, n.s.k.....		(X)	10,436	(X)		12,348

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.  
(X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

n.s.k. Not specified by kind.

<sup>1</sup>Separate data for prestressed pipe were not collected in 1958, therefore, detailed data shown for codes 3272113-3272198 are not directly comparable between 1958 and 1963.

<sup>2</sup>Separate data for precast concrete products and prestressed concrete products were collected for the first time in the 1963 Census of Manufactures. In 1958 shipments of precast and prestressed concrete products were valued at \$287,096 thousand.

<sup>3</sup>For 1963, included in value of products shipped.

**TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
327	Concrete and plaster products.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
3271	Concrete block and brick.....1963..	121	111
	.....1958..	101	109
3273	Ready mixed concrete.....1963..	182	119
	.....1958..	144	112
3274	Lime.....1963..	123	119
	.....1958..	111	108
3281	Cut stone and stone products.....1963..	( <sup>2</sup> )	( <sup>2</sup> )
	.....1958..	( <sup>2</sup> )	( <sup>2</sup> )

<sup>1</sup>Not shown pending further review of data for industry 3275, Gypsum Products.

<sup>2</sup>Not shown pending further review of data for this industry.

**TABLE 6C. Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963**

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
32710	Concrete block and brick:								
	Quantity.....1,000 blocks..	<sup>2</sup> 2,658,545	2,235,535	2,353,967	2,197,541	2,271,340	<sup>3</sup> 2,228,582	2,161,887	1,329,554
	Value.....\$1,000..	472,419	441,630	451,141	431,634	433,826	379,068	341,882	180,280
3272-	Other concrete products, except block and brick.....\$1,000..	861,878	784,620	743,959	742,184	704,107	662,142	335,541	149,450
32721	Concrete pipe.....do..	369,259	336,391	317,984	321,890	314,984	294,786	184,316	82,446
32722	Precast concrete products <sup>4</sup> .....do..	297,300	387,897	365,035	336,046	305,873	287,096	151,225	67,004
32723	Prestressed concrete products.....do..	140,939							
32720	Concrete products, n.s.k.....do..	54,380	(S)	(S)	(S)	(S)	80,260	(X)	(X)
32730	Ready mixed concrete:								
	Quantity.....1,000 cu.yds..	<sup>5</sup> 142,867	140,406	133,055	117,252	123,465	<sup>6</sup> 113,017	( <sup>7</sup> )	( <sup>7</sup> )
	Value.....\$1,000..	1,970,701	1,755,825	1,702,894	1,645,844	1,666,775	1,468,569	( <sup>7</sup> )	( <sup>7</sup> )
32740	Lime.....\$1,000..	136,875	126,790	126,449	124,447	124,284	108,976	90,164	65,207
3275-	Gypsum products.....\$1,000..	405,101	384,093	352,799	358,798	384,916	344,244	273,458	125,910
32751	Gypsum building materials.....do..	405,101	344,543	316,182	323,690	355,891	333,039	265,899	120,917
32752	Other gypsum products.....do..		(S)	(S)	(S)	(S)	6,604	5,750	3,710
32750	Gypsum products, n.s.k.....do..		(S)	(S)	(S)	4,917	4,601	1,809	1,283
3281-	Cut stone and stone products.....\$1,000..	190,948	(210,828)	(210,285)	188,706	201,012	191,054	166,768	<sup>8</sup> 67,205
32811	Cut granite.....do..	87,822	(97,256)	(98,011)	95,011	93,602	87,906	67,510	<sup>8</sup> 40,453
32812	Cut limestone.....do..	29,084	(41,108)	(36,216)	32,749	36,462	35,073	40,017	<sup>8</sup> 10,084
32813	Cut marble and other cut stone products.....do..	63,606	(46,686)	(50,488)	50,198	52,006	55,727	48,774	<sup>8</sup> 16,668
32810	Cut stone and stone products, n.s.k.....do..	10,436	(S)	(S)	(S)	(S)	12,348	10,467	(X)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

n.s.k. Not specified by kind.

<sup>1</sup>See footnote 1, table 1.

<sup>2</sup>Includes estimate for shipments of \$30,452 thousand of concrete block and brick not specified by kind.

<sup>3</sup>Includes estimate for shipments of \$18,453 thousand of concrete block and brick not specified by kind.

<sup>4</sup>See footnote 2, table 6A.

<sup>5</sup>Includes estimate for shipments of \$195,919 thousand of ready mixed concrete for which quantity was not reported.

<sup>6</sup>Includes estimate for shipments of \$519,077 thousand of ready mixed concrete for which quantity was not reported.

<sup>7</sup>See footnote 5, table 1.

<sup>8</sup>The 1947 data represent only the products of dressing plants not operated in conjunction with quarries.



TABLE 6D. **Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>		1963 <sup>1</sup>	1958
CONCRETE PIPE (32721)			PRECAST CONCRETE PRODUCTS (32722)—Continued		PRESTRESSED CONCRETE PRODUCTS (32723)—Continued		
United States, total....	369,259	294,786	East North Central.....	70,519	South Atlantic.....	36,904	
New England.....	12,265	12,024	Ohio.....	16,345	Virginia.....	9,428	
Massachusetts.....	4,594	5,134	Indiana.....	11,279	North Carolina.....	3,931	
Connecticut.....	5,387	3,885	Illinois.....	18,891	South Carolina.....	2,880	
Middle Atlantic.....	30,656	34,785	Michigan.....	12,212	Florida.....	18,370	
New York.....	10,812	11,368	Wisconsin.....	11,792	East South Central.....	6,937	
New Jersey.....	12,069	13,242	West North Central.....	27,637	Tennessee.....	4,000	
Pennsylvania.....	7,775	10,175	Minnesota.....	10,422	Alabama.....	1,043	
East North Central.....	80,660	63,280	Iowa.....	5,818	West South Central.....	15,323	
Ohio.....	24,407	19,898	Missouri.....	5,803	Texas.....	8,798	
Indiana.....	6,804	5,805	Nebraska.....	2,425	Mountain.....	9,287	
Illinois.....	20,489	17,479	Kansas.....	2,279	Arizona.....	2,614	
Michigan.....	22,929	15,991	South Atlantic.....	58,484	Pacific.....	20,644	
Wisconsin.....	6,031	4,107	Maryland.....	10,223	Washington.....	5,026	
West North Central.....	29,912	23,740	Virginia.....	11,699	Oregon.....	2,217	
Minnesota.....	10,230	7,736	West Virginia.....	1,228	California.....	10,820	
Iowa.....	5,233	3,513	North Carolina.....	6,330	Hawaii.....	2,581	
Missouri.....	4,722	2,874	South Carolina.....	1,372			
Kansas.....	4,638	4,674	Georgia.....	7,426	CUT GRANITE AND GRANITE PRODUCTS (32811)		
South Atlantic.....	61,077	43,574	Florida.....	18,818		1963 <sup>1</sup>	1958
Maryland.....	17,058	10,147	East South Central.....	14,037	United States, total...	87,822	87,906
Virginia.....	9,099	6,402	Kentucky.....	2,633	New England.....	31,227	33,739
North Carolina.....	6,322	5,251	Tennessee.....	5,207	Maine.....	1,137	(2)
South Carolina.....	6,973	6,515	Alabama.....	4,459	Vermont.....	20,871	24,737
Georgia.....	8,609	5,397	Mississippi.....	1,738	Massachusetts.....	4,746	5,552
Florida.....	10,618	7,382	West South Central.....	20,907	Middle Atlantic.....	6,292	5,499
East South Central.....	20,480	18,312	Arkansas.....	1,143	New York.....	3,961	3,351
Kentucky.....	2,259	2,890	Louisiana.....	2,571	East North Central.....	2,453	5,413
Tennessee.....	6,163	5,071	Oklahoma.....	2,066	Wisconsin.....	1,004	1,536
Alabama.....	3,936	6,183	Texas.....	15,127	West North Central.....	23,138	18,935
Mississippi.....	8,122	4,168	Mountain.....	9,721	Minnesota.....	19,846	15,003
West South Central.....	47,999	33,057	Colorado.....	3,211	Kansas.....	1,077	1,929
Arkansas.....	2,691	1,481	Arizona.....	1,907	South Atlantic.....	16,539	15,778
Louisiana.....	7,891	5,787	Pacific.....	25,824	North Carolina.....	2,466	2,540
Oklahoma.....	3,351	2,451	Washington.....	4,806	Georgia.....	13,162	11,312
Texas.....	34,066	23,338	Oregon.....	1,361	East South Central.....	1,319	1,580
Mountain.....	18,490	11,639	California.....	19,089	West South Central.....	3,290	3,109
Idaho.....	1,499	1,943	PRESTRESSED CONCRETE PRODUCTS (32723)		Texas.....	3,081	2,406
Colorado.....	4,181	1,948	United States, total...	140,939	West.....	3,564	(2)
Utah.....	2,581	2,503	New England.....	5,981	California.....	3,043	2,868
Pacific.....	67,720	54,375	Massachusetts.....	4,584	CUT LIMESTONE AND LIMESTONE PRODUCTS (32812)		
Washington.....	9,708	6,219	Middle Atlantic.....	13,402	United States, total...	29,084	
Oregon.....	6,103	5,218	New York.....	2,740	Middle Atlantic.....	1,039	
California.....	50,030	42,938	New Jersey.....	4,730	East North Central.....	20,849	
PRECAST CONCRETE PRODUCTS (32722)	1963 <sup>1</sup>		Pennsylvania.....	5,932	Indiana.....	14,669	
United States, total....		297,300	East North Central.....	24,453	Illinois.....	2,709	
New England.....		14,472	Ohio.....	6,908	Wisconsin.....	2,203	
Massachusetts.....		6,765	Indiana.....	1,261	West North Central.....	2,564	
Rhode Island.....		1,259	Illinois.....	5,591	Minnesota.....	1,680	
Connecticut.....		4,891	Michigan.....	4,972			
Middle Atlantic.....		55,699	Wisconsin.....	5,721			
New York.....		22,906	West North Central.....	8,008			
New Jersey.....		16,658	Minnesota.....	1,713			
Pennsylvania.....		16,135	Iowa.....	2,835			

See footnotes at end of table.

TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments				
CUT LIMESTONE AND LIMESTONE PRODUCTS (32812)—Continued	1963 <sup>1</sup>		CUT MARBLE AND OTHER CUT STONE PRODUCTS (32813)—Continued	1963 <sup>1</sup>	1958	CUT MARBLE AND OTHER CUT STONE PRODUCTS (32813)—Continued	1963 <sup>1</sup>	1958			
	South Atlantic.....	1,169		Middle Atlantic.....	13,303		11,499	South Atlantic.....	7,855	7,188	
	East South Central.....	1,364			New York.....		7,032	6,211	Virginia.....	1,633	1,015
	West South Central.....	1,044			Pennsylvania.....		5,704	5,029	East South Central.....	7,140	7,177
	All other divisions.....	1,055			East North Central.....		10,366	14,068	Tennessee.....	4,860	5,654
	CUT MARBLE AND OTHER CUT STONE PRODUCTS (32813)			Ohio.....	5,032		5,881	West South Central.....	1,397	(2)	
	1963 <sup>1</sup>	1958			Indiana.....		1,679		1,450	West.....	3,339
United States, total....	63,606	55,727	Illinois.....		2,080	4,072	California.....		2,625	1,837	
New England.....	13,382	7,348	West North Central.....		6,824	5,355					
Vermont.....	11,147	6,720									
Massachusetts.....	1,043	-									

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 32721, North Dakota, South Dakota, Nebraska, West Virginia, Wyoming, New Mexico, Arizona, Nevada and Hawaii; 32722, Utah; 32723, Nebraska, Louisiana, Montana, Colorado and Utah; 32811, New Hampshire, Rhode Island, Pennsylvania and South Dakota; 32813, Missouri, Georgia and Alabama.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.



TABLE 6E. Concrete Block—Quantity and Value of Shipments, by Geographic Areas: 1963

Geographic area	Lightweight aggregate (Product code 3271011)		Heavyweight aggregate (Product code 3271015)	
	Quantity (1,000 block 8" x 8" x 16" equivalent)	Value (\$1,000)	Quantity (1,000 block 8" x 8" x 16" equivalent)	Value (\$1,000)
UNITED STATES, TOTAL.....	1,216,458	261,509	845,930	167,024
New England.....	43,675	10,666	42,061	8,790
Maine.....	(Z)	(Z)	(Z)	(Z)
New Hampshire.....	(Z)	(Z)	(Z)	(Z)
Vermont.....	(Z)	(Z)	(Z)	(Z)
Massachusetts.....	18,386	4,441	16,758	3,433
Rhode Island.....	(Z)	(Z)	(Z)	(Z)
Connecticut.....	18,763	4,690	12,700	2,701
Middle Atlantic.....	257,775	51,851	143,042	28,130
New York.....	72,523	17,542	53,271	11,407
New Jersey.....	85,055	17,166	14,439	2,561
Pennsylvania.....	100,197	17,143	75,332	14,162
East North Central.....	227,530	50,117	199,311	40,121
Ohio.....	74,630	15,629	56,740	10,383
Indiana.....	24,691	5,061	33,103	7,271
Illinois.....	49,706	10,775	26,770	5,556
Michigan.....	54,368	13,273	45,016	9,138
Wisconsin.....	24,135	5,379	37,682	7,773
West North Central.....	57,577	13,586	101,136	20,797
Minnesota.....	13,174	3,212	41,005	8,466
Iowa.....	9,165	2,327	18,497	3,870
Missouri.....	15,514	3,365	13,592	2,565
North Dakota.....	5,572	1,285	(Z)	(Z)
South Dakota.....	(Z)	(Z)	(Z)	(Z)
Nebraska.....	(Z)	(Z)	18,045	3,728
Kansas.....	7,222	1,702	(Z)	(Z)
South Atlantic.....	256,040	54,009	211,885	40,064
Delaware.....	7,517	1,557	(Z)	(Z)
Maryland.....	42,830	9,169	13,963	2,585
District of Columbia.....	14,997	3,021	(Z)	(Z)
Virginia.....	61,021	13,400	(D)	(D)
West Virginia.....	9,660	2,068	8,449	1,874
North Carolina.....	53,336	11,295	13,644	2,631
South Carolina.....	12,479	2,608	15,496	2,900
Georgia.....	36,127	7,530	27,571	5,206
Florida.....	18,073	3,361	122,154	22,603
East South Central.....	89,319	17,288	64,669	12,043
Kentucky.....	13,974	2,958	19,985	3,817
Tennessee.....	27,358	5,700	37,509	6,910
Alabama.....	39,128	6,718	6,389	1,169
Mississippi.....	8,859	1,912	(Z)	(Z)
West South Central.....	74,689	18,225	19,579	3,829
Arkansas.....	7,439	1,552	8,034	1,518
Louisiana.....	10,408	2,802	(Z)	(Z)
Oklahoma.....	14,132	3,132	7,284	1,445
Texas.....	42,710	10,739	(Z)	(Z)
Mountain.....	119,518	22,909	8,416	1,701
Montana.....	(Z)	(Z)	(Z)	(Z)
Idaho.....	5,565	1,402	(Z)	(Z)
Wyoming.....	(Z)	(Z)	(Z)	(Z)
Colorado.....	19,707	4,587	(Z)	(Z)
New Mexico.....	13,481	3,033	(Z)	(Z)
Arizona.....	(D)	(D)	(Z)	(Z)
Utah.....	10,413	2,576	(Z)	(Z)
Nevada.....	17,085	3,960	(Z)	(Z)
Pacific.....	90,335	22,858	55,831	11,549
Washington.....	10,503	2,665	8,376	2,048
Oregon.....	10,555	2,526	(Z)	(Z)
California.....	59,894	15,064	41,350	8,172
Alaska.....	(D)	(D)	(D)	(D)
Hawaii.....	(D)	(D)	(D)	(D)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.  
applicable. (Z) Less than \$1 million.

(NA) Not available. (X) Not

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963	
			Quantity	Delivered cost (\$1,000)
			INDUSTRY 3271.—CONCRETE BLOCK AND BRICK	
	Materials, parts, containers, and supplies, total <sup>1</sup> .....		(X)	197,172
324101	Portland cement:			
324101	Quantity reported.....	376 lb. barrels.	12,335,969	49,179
	Quantity not reported.....		(X)	6,227
144201	Common sand and gravel:			
144201	Quantity reported.....	Short tons.....	14,834,579	23,027
	Quantity not reported.....		(X)	5,095
331091	Steel:			
331092	Wire stand and bars or rods, high strength, stress relieved.....	do.....	2,151	530
331092	Welded wire concrete reinforcing mesh.....	do.....	4,479	600
331009	Concrete reinforcing bars.....	do.....	(S)	1,224
970099	All other materials and components, parts, containers, and supplies.....		(X)	49,354
973000	Materials, components, parts, containers, and supplies, n.s.k.....		(X)	<sup>2</sup> 61,936
			INDUSTRY 3272.—OTHER CONCRETE PRODUCTS	
	Materials, parts, containers, and supplies, total <sup>1</sup> .....		(X)	337,262
324101	Portland cement.....	376 lb. barrels.	17,124,178	68,131
144201	Common sand and gravel.....	Short tons.....	15,745,240	30,554
331091	Steel:			
331092	Wire stand and bars or rods, high strength, stress relieved.....	do.....	124,581	23,947
331092	Welded wire concrete reinforcing mesh.....	do.....	182,501	32,746
331009	Concrete reinforcing bars.....	do.....	117,925	16,516
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	93,688
973000	Materials, containers, and supplies, n.s.k.....		(X)	<sup>2</sup> 71,680
			INDUSTRY 3273.—READY MIXED CONCRETE	
	Materials, parts, containers, and supplies, total <sup>1</sup> .....		(X)	1,155,520
324101	Portland cement.....	376 lb. barrels.	132,719,252	502,161
144201	Common sand and gravel, including crushed or broken stone.....	Short tons.....	166,261,660	283,837
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	104,337
973000	Materials and components, parts, containers, and supplies consumed, n.s.k.....		(X)	<sup>2</sup> 265,185
			1963 delivered cost (\$1,000)	
			INDUSTRY 3274.—LIME	
	Materials, parts, containers, and supplies, total <sup>1</sup> .....			37,149
264338	Paper shipping sacks and multiwall bags.....			4,254
970099	All other materials and components, parts, containers, and supplies consumed.....			26,003
973000	Materials, parts, containers, and supplies, n.s.k.....			<sup>2</sup> 6,892
			1963	
			Quantity	Delivered cost (\$1,000)
			INDUSTRY 3275.—GYPSUM PRODUCTS	
	Materials, parts, containers, and supplies, total <sup>1</sup> .....		(X)	133,830
264338	Paper shipping sacks and multiwall bags.....		(X)	4,920
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	125,188
973000	Materials, parts, containers, n.s.k.....		(X)	3,722

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	1963			1958		
		Quantity	Delivered cost	Stone consumed from quarries operated at the same location as the dressing plant (short tons)	Quantity	Delivered cost	Stone consumed from quarries operated at the same location as the dressing plant (short tons)
		(short tons)	(\$1,000)	(short tons)	(short tons)	(\$1,000)	(short tons)
		INDUSTRY 3281.—CUT STONE AND STONE PRODUCTS					
	Materials, parts, containers, and supplies, total....	(X)	70,559	3,024,551	(X)	63,794	2,290,224
141101	Stone for preparation:						
142101	Rough blocks used to produce dressed stone.....	1,107,238	24,937	1,700,795	1,217,639	25,599	1,583,418
	Broken stone received for crushing, screening, or washing.....	(S)	196	1,323,756	55,463	231	706,806
970099	All other materials, including supplies such as explosives, steel mill shapes and forms, timber and lumber purchased, forging and castings, drill bits, other tools and parts, lubricants and water purchased.....	(X)	31,285	-	-	37,964	-
973000	Materials, n.s.k.....	(X)	214,141	-	-	(X)	-

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards.

n.s.k. Not specified by kind.

<sup>1</sup>Comparable detailed data not available for 1958.

<sup>2</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

**TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962**

Item	Concrete block and brick (SIC 3271)	Other concrete products (SIC 3272)	Ready mixed concrete (SIC 3273)	Lime (SIC 3274)	Gypsum products (SIC 3275)	Cut stone and stone products (SIC 3281)
Total cost of purchased fuels and electric energy.....\$1,000..	14,425	14,082	38,467	21,306	17,972	4,999
Total cost of purchased fuels.....do....	9,453	8,804	28,436	17,296	11,265	1,708
Bituminous coal, lignite, and anthracite:						
Quantity.....1,000 short tons..	(S)	52	(S)	(S)	117	18
Cost.....\$1,000..	(S)	333	(S)	(S)	948	183
Coke and breeze:						
Quantity.....1,000 short tons..	-	-	-	(S)	-	(S)
Cost.....\$1,000..	-	-	-	(S)	-	(S)
Fuel oil (distillate and residual):						
Quantity.....1,000 barrels of 42 gallons..	756	443	1,113	318	1,203	177
Cost.....\$1,000..	2,853	2,022	5,669	950	3,543	884
Gas (natural, manufactured, still, blast furnace, and coke oven):						
Quantity.....million cu.ft..	5,646	4,744	5,300	15,154	17,984	132
Cost.....\$1,000..	2,633	2,480	2,571	5,074	6,678	112
Other fuels.....do....	3,420	3,969	19,914	237	96	502
Electric energy:						
Purchased:						
Quantity.....million kw.-hrs..	268	243	626	355	570	195
Cost.....\$1,000..	4,972	5,278	10,031	4,010	6,707	3,291
Generated less sold.....million kw.-hrs..	-	(S)	(S)	-	(S)	42
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	319	410	776	243	414	276
Prime movers, total.....do....	104	156	249	35	93	58
Driving generators.....do....	21	14	11	1	3	16
Not driving generators.....do....	83	142	238	34	90	42
Electric motors, total.....do....	216	255	528	208	322	229
Driven by purchased energy.....do....	215	255	528	208	321	218
Driven by energy generated at establishment.....do....	(Z)	1	(Z)	-	(Z)	11
Aggregate horsepower per 100 production workers.....	1,973	1,042	1,615	4,296	4,349	1,494

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3272-	OTHER CONCRETE PRODUCTS, EXCEPT BLOCK AND BRICK										
	Entire industry.....	3,451	52,297	266,706	41,093	87,256	190,945	539,967	387,389	925,677	43,550
	Establishments with—										
	90% or more specialization...	3,230	44,781	225,671	35,446	75,268	163,807	459,049	321,983	778,651	37,399
	75-89% specialization.....	76	2,587	14,885	2,033	4,281	10,455	27,225	19,577	46,520	1,507
32721	Concrete pipe (primary product class of estab.).....	691	19,957	106,694	15,659	32,970	76,543	237,442	183,731	419,112	17,815
	Establishments with—										
	90% or more specialization....	500	13,893	74,975	10,823	22,889	53,598	174,984	129,174	301,448	12,622
	75-89% specialization.....	79	2,226	11,962	1,870	3,817	9,465	24,959	19,034	44,281	2,271
32722	Precast concrete products (primary product class of estab.).....	1,782	19,732	99,247	15,297	32,458	69,608	183,961	109,540	293,184	13,275
	Establishments with—										
	90% or more specialization....	1,522	15,926	80,908	12,262	26,010	56,451	149,263	85,496	234,493	11,008
	75-89% specialization.....	106	1,346	6,542	1,075	2,285	4,767	12,509	8,779	21,242	897
32723	Prestressed concrete products (primary product class of estab.)	177	8,306	44,794	6,672	14,577	32,453	85,410	69,093	155,321	7,521
	Establishments with—										
	90% or more specialization....	115	4,006	21,370	3,338	7,370	16,445	41,224	30,069	71,624	3,198
	75-89% specialization.....	20	1,537	8,667	1,226	2,679	5,718	13,416	15,678	28,652	2,402
3274-	LIME										
	Entire industry.....	125	6,778	38,903	5,384	11,366	28,519	95,135	69,011	164,366	14,730
	Establishments with—										
	90% or more specialization....	91	2,968	16,643	2,481	5,170	13,042	40,838	33,144	74,004	3,325
	75-89% specialization.....	14	1,702	9,689	1,415	2,975	7,411	25,593	13,860	39,514	2,475
3281-	CUT STONE AND STONE PRODUCTS										
	Entire industry.....	893	18,340	85,745	15,259	30,896	66,657	131,465	86,633	217,176	6,693
	Establishments with—										
	90% or more specialization....	806	13,501	64,643	11,035	22,320	48,974	100,788	72,054	172,178	4,918
	75-89% specialization.....	33	2,887	11,923	2,531	5,185	10,174	18,187	8,540	26,513	955
32811	Cut granite and granite products (primary product class of estab.)	287	7,163	34,376	5,837	11,722	25,831	55,107	40,142	94,739	2,225
	Establishments with—										
	90% or more specialization....	251	6,087	30,131	4,923	10,063	22,643	47,332	33,957	80,869	1,930
	75-89% specialization.....	14	592	2,243	518	928	1,785	3,475	1,948	5,408	176
32812	Cut limestone and limestone products (primary product class of estab.).....	129	3,115	15,492	2,629	5,257	12,709	23,114	12,508	35,525	1,095
	Establishments with—										
	90% or more specialization....	99	1,730	8,543	1,472	2,926	6,931	12,812	7,997	20,645	460
	75-89% specialization.....	11	355	1,455	257	523	1,218	2,534	1,006	3,540	205
32813	Cut marble and other cut stone products (primary product class of estab.).....	267	7,057	32,012	5,997	12,332	25,045	46,083	29,061	74,880	2,702
	Establishments with—										
	90% or more specialization....	209	3,727	17,265	3,135	6,359	13,245	24,862	17,937	42,828	1,716
	75-89% specialization.....	29	1,499	6,778	1,232	2,547	5,075	10,046	5,545	15,704	333

TABLE 9A. Selected Statistics for Establishments With Mining Activities: 1963

Item	Ready mixed concrete (SIC 3273)	Lime (SIC 3274)	Gypsum products (SIC 3275)
Establishments <sup>1</sup> .....number..	238	58	34
Production workers wages.....\$1,000..	11,200	6,433	3,604
Man-hours of production workers.....do....	4,195	2,606	1,430
Cost of supplies, fuels, electric energy and contract work.....do....	15,879	5,832	2,785

<sup>1</sup>See footnotes 1 and 2, table 3.

TABLE 9B. Cut Stone and Stone Products—Establishments and Man-Hours for Quarrying and Dressing Stone Operations at the Same Location: 1963

Item	Total	Cut limestone	Cut granite	Cut marble and other cut stone
Establishments <sup>1</sup> .....number..	118	24	46	48
Man-hours worked by production and development workers, total.....1,000..	14,799	3,058	4,040	7,701
At mines and quarries, total.....do....	5,002	1,061	1,260	2,681
Underground.....do....	690	(X)	(X)	690
Open quarry.....do....	3,620	942	923	1,755
Surface (including mineshops and yards).....do....	692	119	337	236
At crushing plant.....do....	166	61	14	91
At mill (including auxiliary).....do....	8,369	1,552	2,047	4,770
Not specified.....do....	1,262	384	719	159

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>See footnote 3, table 3.





## ABRASIVE, ASBESTOS, AND MISCELLANEOUS NONMETALLIC MINERAL PRODUCTS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3291—Abrasive Products
- 3292—Asbestos Products
- 3293—Steam and Other Packing, and Pipe and Boiler Covering
- 3295—Minerals and Earths, Ground or Otherwise Treated
- 3296—Mineral Wool
- 3297—Nonclay Refractories
- 3299—Nonmetallic Mineral Products, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3291—ABRASIVE PRODUCTS

This industry comprises establishments primarily engaged in manufacturing abrasive grinding wheels of natural or synthetic materials, and other abrasive products. The cutting of grindstones, pulpstones, and whetstones at the quarry is classified in mining industries. For a detailed list of products of industry 3291, refer to table 6A, product codes 3291117 to 3291498.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Abrasive Products Industry totaled \$704 million. This amount included shipments of abrasive products (primary products) valued at \$541 million.

This industry's shipments of abrasive products represented over 70 percent of its total product shipments. The industry specialization ratio in 1958 was 83 percent. The exact percentage for 1963 is withheld to avoid disclosing figures for individual companies.

Shipments of abrasive products by this industry represented 95 percent of all shipments of these products (\$572 million) by all industries. In 1958, the coverage ratio was 96



percent. Other industries shipping abrasive products included industry 3541, Metal-Cutting Machine Tools, and industry 3545, Machine Tool Accessories.

### 3292—ASBESTOS PRODUCTS

This industry comprises establishments primarily engaged in manufacturing asbestos textiles, asbestos friction materials, vinyl asbestos floor tile, and other commodities composed wholly or chiefly of asbestos, except asbestos paper (industry 2661), steam and other packing, pipe and boiler covering, and gaskets (industry 3293). For a detailed list of products of industry 3292, refer to table 6A, product codes 3292211 to 3292798.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Asbestos Products Industry totaled \$509 million. This amount included shipments of asbestos products (primary products) valued at \$459 million, shipments of other products (secondary products) valued at \$24 million, and miscellaneous receipts at \$26 million.

This industry's shipments of asbestos products represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was 89 percent. Secondary products shipped by this industry in 1963 consisted mainly of packing (except leather, rubber, and metal) and asbestos insulations and gaskets, all types.

Shipments of asbestos products by this industry represented 91 percent of all shipments of these products (\$506 million) by all industries. In 1958 the coverage ratio was 92 percent. Other industries shipping asbestos products included industry 2952, Asphalt Felts and Coatings, and industry 3293, Gaskets and Insulations.

The production index for the primary products of the industry increased to 136 in 1963 from the 1958 level of 112. The unit value index for 1963 was 112, the same level as in 1958. Both indexes were computed on a basis of 1954 = 100.

### 3293—STEAM AND OTHER PACKING, AND PIPE AND BOILER COVERING

This industry comprises establishments primarily engaged in manufacturing gaskets (all types); packing for steam, water, and other pipe joints, and for engines, air compressors, etc.; and asbestos insulating materials. Establishments primarily engaged in manufacturing leather packing are classified in industry 3121, rubber packing in industry 3069, and metal packing in industry 3599. Establishments primarily engaged in manufacturing mineral wool and insulation products, therefore, are classified in industry 3296. For a detailed list of products of industry 3293, refer to table 6A, product codes 3293211 to 3293351.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Gaskets and Insulations Industry totaled \$279 million. This amount included shipments of gaskets and insulations (primary products) valued at \$206 million, shipments of other products (secondary products) valued at \$48 million, and miscellaneous receipts at \$26 million.

This industry's shipments of gaskets and insulations represented 81 percent of its total product shipments. The industry specialization ratio in 1958 was 87 percent. Secondary products shipped by this industry in 1963 consisted mainly of mechanical rubber goods (\$12 million), and carburetors, pistons, and other machine shop products.

Shipments of gaskets and insulations by this industry represented 78 percent of all shipments of these products (\$262 million) by all industries. In 1958 the coverage ratio was 69 percent. Other industries shipping gaskets and insulations consisted mainly of industry 3069, Rubber Products, N.E.C., and industry 3292, Asbestos Products.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product class of industry 3293, e.g., 32933 Packing, except leather, rubber, and metal and asbestos insulation, 67 percent.

#### 3295—MINERALS AND EARTHS, GROUND OR OTHERWISE TREATED

This industry comprises establishments operating without a mine and primarily engaged in crushing, grinding, pulverizing, or otherwise preparing clay, ceramic, and refractory minerals (of the type in minerals Group 145); barite (mined by industry 1472); miscellaneous nonmetallic minerals, except fuels (talc, gypsum, graphite, and other minerals of the type classified in minerals Group 149); or in crushing slag or preparing roofing granules. However, establishments preparing such nonmetallic minerals or roofing granules in conjunction with a mine at the site are classified in the mineral industries. The crushing and grinding of stone; the preparation of sand and gravel (minerals Group 144) and of chemical and fertilizer minerals, except barite (minerals Group 147, except industry 1472) are classified in the mineral industries whether or not the establishment includes a mine. The beneficiation or preparation of metallic ores and the cleaning and grading of coal at the mine or at separately operated preparation plants are classified in the mineral industries. For a detailed list of products of industry 3295, refer to table 6A, product codes 3295011 to 3295098.

The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been slightly changed from the classification system used in 1958. The composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is due principally to (1) the reclassification of exfoliated vermiculate from industry 3296 to industry 3295 (1958 data have been revised to reflect this change) and (2) the inclusion of roofing granules produced in conjunction with mining operations in the mineral industries for 1963. In prior years these roofing granule plants were included in industry 3295. Data for prior years have not been revised to avoid disclosing figures for individual companies.

Value of shipments and other receipts of the Minerals, Ground or Treated, Industry totaled \$204 million. This amount included shipments of minerals and earths, ground or otherwise treated (primary products), valued at \$175 million, shipments of other products (secondary products) valued at \$11 million, and miscellaneous receipts at \$18 million.

This industry's shipments of minerals and earths, ground or otherwise treated, represented 94 percent of its total product shipments. The industry specialization ratio in 1958 was 96 percent.

Shipments of minerals and earths, ground or otherwise treated, by this industry represented 86 percent of all shipments of these products (\$203 million) by all industries. In 1958 the coverage ratio was 85 percent. Other industries shipping minerals and earths, ground or otherwise treated, are industry 3275, Gypsum Products, \$6 million; and industry 3273, Ready-Mixed Concrete, \$4 million.

#### 3296—MINERAL WOOL

This industry comprises establishments primarily engaged in manufacturing mineral wool and mineral wool insulation products made of such silicious materials as rock, slag, and glass, or combinations thereof. Establishments primarily engaged in manufacturing asbestos insulation products are classified in industries 3292 and 3293;



textile type glass fibers in industry 3229 and exfoliated vermiculite products in industry 3295. For a detailed list of products of industry 3296, refer to table 6A, product codes 3296111 to 3296298.

The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been slightly changed from the classification system used in 1958. The composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is due principally to the reclassification of exfoliated vermiculite from industry 3296 to industry 3295. The 1958 data have been revised to reflect this change.

Value of shipments and other receipts of the Mineral Wool Industry totaled \$392 million. This amount included shipments of mineral wool (primary products) valued at \$342 million, shipments of other products (secondary products) valued at \$37 million, and miscellaneous receipts, at \$13 million.

This industry's shipments of mineral wool represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent. Secondary products shipped by this industry in 1963 consisted mainly of industrial plastics products and general industrial machinery.

Shipments of mineral wool by this industry represented 96 percent of all shipments of these products (\$356 million) by all industries. In 1958 the coverage ratio was 95 percent. Other industries shipping mineral wool include industry 2661, Building Paper and Board Mills; and industry 3293, Gaskets and Insulations.

The production index for the primary products of the industry increased to 283 in 1963 from the 1958 level of 168. The unit value index for 1963 was 76 compared to 86 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3297—NONCLAY REFRACTORIES

This industry comprises establishments primarily engaged in manufacturing refractories and crucibles made of materials other than clay. This industry also includes establishments primarily engaged in manufacturing all graphite refractories, whether of carbon bond or ceramic bond. Establishments primarily engaged in manufacturing clay refractories are classified in industry 3255. For a detailed list of products of industry 3297, refer to table 6A, product codes 3297012 to 3297098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Nonclay Refractories Industry totaled \$250 million. This amount included shipments of nonclay refractories (primary products) valued at \$226 million, shipments of other products (secondary products) valued at \$15 million, and miscellaneous receipts, at \$9 million.

This industry's shipments of nonclay refractories represented 94 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent. Secondary products shipped by this industry in 1963 consisted mainly of clay refractories (\$8 million), and minerals and earths, ground or treated (43 million).

Shipments of nonclay refractories by this industry represented 88 percent of all shipments of these products (\$257 million) by all industries. In 1958 the coverage ratio was 89 percent. Other industries shipping nonclay refractories include industry 3255, Clay Refractories, \$9 million; and industry 3291, Abrasive Products. Quarterly information on the shipments of refractories by type is collected on Form M32C and published

in Current Industrial Reports Series M32C. Manufacturers were required to report total value of refractories shipped only in the 1963 Census of Manufactures. The detailed product information published in table 6A was obtained from Current Industrial Reports Series M32C(64)-5, Refractories. The total value as reported in the census of manufactures is also shown in table 6A.

The production index for the primary products of the industry increased to 154 in 1963 from the 1958 level of 120. The unit value index for 1963 was 130 compared to 122 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3299—NONMETALLIC MINERALS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in the factory production of statuary and art goods made of plaster of paris and papier-mache; in manufacturing sand lime products, sheet mica products, and other nonmetallic mineral products, n.e.c. For a detailed list of products of industry 3299, refer to table 6A, product codes 3299053 to 3299098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Nonmetallic Products, N.E.C., Industry totaled \$96 million. This amount included shipments of nonmetallic mineral products, n.e.c., (primary products) valued at \$80 million, shipments of other products (secondary products) valued at \$13 million, and miscellaneous receipts, at \$4 million.

This industry's shipments of nonmetallic products, n.e.c., represented 86 percent of its total product shipments. The industry specialization ratio in 1958 was 85 percent. Secondary products shipped by this industry in 1963 consisted mainly of industrial product finishes, except lacquers and mineral wool for industrial and equipment insulation.

Shipments of nonmetallic products, n.e.c., by this industry represent 96 percent of all shipments of these products (\$83 million) by all industries. In 1958 the coverage ratio was 85 percent.



# NONMETALLIC MINERAL PRODUCTS: SIC 329

Value Added by Manufacture by State: 1963

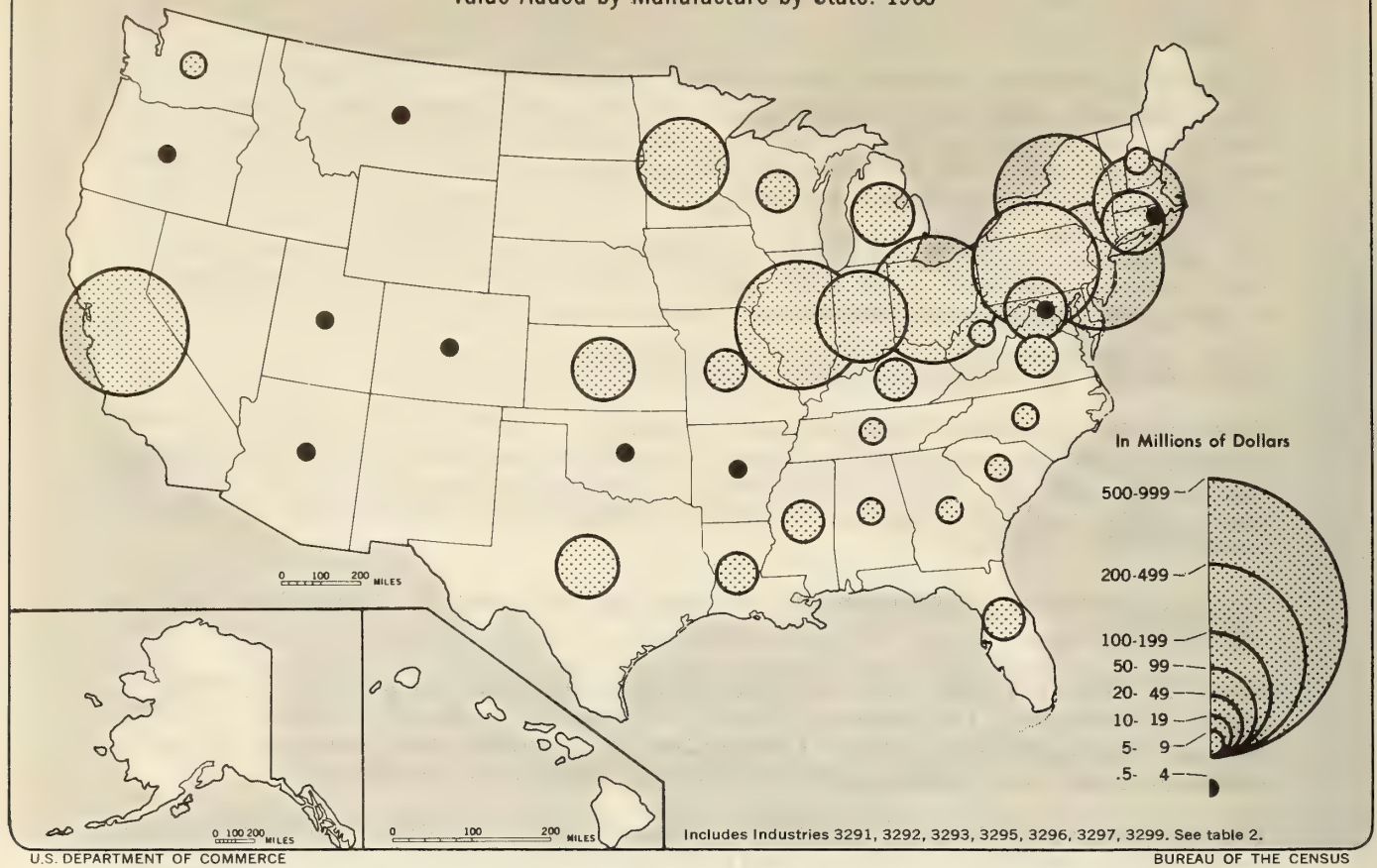


TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new  (\$1,000)	Spec- ializa- tion ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3291.—ABRASIVE PRODUCTS														
1963.....	340	378	149	28,170	186,971	18,583	36,695	107,628	416,415	287,458	704,212	15,506	170	95
1962 <sup>2</sup> .....	(NA)	(NA)	(NA)	28,498	187,925	18,074	35,159	100,869	398,328	266,613	659,527	12,148	(NA)	(NA)
1961 <sup>2</sup> .....	(NA)	(NA)	(NA)	27,135	169,240	16,925	33,224	88,993	357,377	238,209	594,925	14,113	(NA)	(NA)
1960 <sup>2</sup> .....	(NA)	(NA)	(NA)	27,955	172,741	18,265	34,729	91,693	354,447	253,442	605,924	16,368	(NA)	(NA)
1959 <sup>2</sup> .....	(NA)	(NA)	(NA)	27,354	165,564	18,416	35,928	94,061	351,632	253,912	599,472	20,164	(NA)	(NA)
1958.....	317	354	130	23,955	127,912	15,971	30,891	75,499	277,706	211,163	490,752	21,098	83	96
1957 <sup>2</sup> .....	(NA)	(NA)	(NA)	24,377	130,214	16,672	33,107	78,554	276,761	173,450	438,067	(S)	95	89
1956 <sup>2</sup> .....	(NA)	(NA)	(NA)	24,835	129,891	17,104	34,743	79,544	261,932	181,761	438,094	13,489	(NA)	(NA)
1955 <sup>2</sup> .....	(NA)	(NA)	(NA)	24,607	122,114	17,437	35,743	79,456	263,146	176,358	426,494	8,989	(NA)	(NA)
1954.....	290	312	132	22,345	101,218	15,756	30,417	62,040	198,983	153,649	349,184	9,857	94	87
1953 <sup>2</sup> .....	(NA)	(NA)	(NA)	24,754	113,543	18,512	37,381	75,149	231,231	174,133	405,364	(NA)	(NA)	(NA)
1952 <sup>2</sup> .....	(NA)	(NA)	(NA)	23,333	99,578	16,589	32,749	61,027	195,860	130,752	326,432	(NA)	(NA)	(NA)
1951 <sup>2</sup> .....	(NA)	(NA)	(NA)	23,695	99,309	17,761	36,516	66,158	208,167	152,395	360,382	(NA)	(NA)	(NA)
1950 <sup>2</sup> .....	(NA)	(NA)	(NA)	19,572	77,306	14,966	30,836	51,320	170,684	116,860	287,364	(NA)	(NA)	(NA)
1949 <sup>2</sup> .....	(NA)	(NA)	(NA)	17,193	60,359	12,720	23,328	37,975	123,422	79,744	202,807	(NA)	(NA)	(NA)
1947.....	236	254	(NA)	21,042	67,114	16,068	31,642	45,674	127,954	98,109	225,399	(NA)	94	86
1939.....	(NA)	124	(NA)	11,321	20,491	7,734	(NA)	10,683	44,765	26,506	71,271	(NA)	(NA)	(NA)
1937.....	(NA)	103	(NA)	11,376	18,771	9,670	(NA)	14,250	48,615	29,339	77,954	(NA)	(NA)	(NA)
1935.....	(NA)	94	(NA)	8,693	12,806	6,776	(NA)	8,351	33,133	20,734	53,867	(NA)	(NA)	(NA)
1933.....	(NA)	77	(NA)	5,867	6,653	4,890	(NA)	4,981	18,810	11,349	30,159	(NA)	(NA)	(NA)
1931.....	(NA)	73	(NA)	(NA)	(NA)	4,614	(NA)	5,540	19,920	11,727	31,647	(NA)	(NA)	(NA)
INDUSTRY 3292.—ASBESTOS PRODUCTS														
1963.....	73	124	84	19,516	118,024	15,738	32,884	89,766	269,067	240,725	509,236	12,381	95	91
1962 <sup>2</sup> .....	(NA)	(NA)	(NA)	21,845	125,947	17,716	36,643	96,108	268,174	251,367	512,903	13,911	(NA)	(NA)
1961 <sup>2</sup> .....	(NA)	(NA)	(NA)	21,724	118,594	17,550	35,867	90,116	269,346	238,826	502,883	9,137	(NA)	(NA)
1960 <sup>2</sup> .....	(NA)	(NA)	(NA)	22,409	119,154	18,255	37,382	92,054	279,116	243,722	514,993	18,456	(NA)	(NA)
1959 <sup>2</sup> .....	(NA)	(NA)	(NA)	22,773	119,406	18,583	39,142	92,802	279,632	250,505	522,515	11,103	(NA)	(NA)
1958.....	69	109	80	21,292	106,411	17,024	35,046	80,440	235,487	216,612	453,488	12,837	83	96
1957 <sup>2</sup> .....	(NA)	(NA)	(NA)	22,876	111,056	18,277	38,167	84,896	241,547	197,982	425,866	31,376	86	93
1956 <sup>2</sup> .....	(NA)	(NA)	(NA)	22,831	107,586	18,234	39,195	83,603	234,313	198,556	424,549	(S)	(NA)	(NA)
1955 <sup>2</sup> .....	(NA)	(NA)	(NA)	23,694	104,934	19,075	40,359	81,858	227,517	186,379	405,120	13,967	(NA)	(NA)
1954.....	74	110	84	21,977	92,413	17,760	35,985	70,319	186,927	176,791	361,131	14,935	87	93
1953 <sup>2</sup> .....	(NA)	(NA)	(NA)	22,239	91,532	17,983	38,846	71,110	183,205	177,225	360,430	(NA)	(NA)	(NA)
1952 <sup>2</sup> .....	(NA)	(NA)	(NA)	21,156	82,142	17,193	37,089	63,859	163,477	157,839	316,227	(NA)	(NA)	(NA)
1951 <sup>2</sup> .....	(NA)	(NA)	(NA)	20,936	77,836	17,306	37,268	61,206	169,569	150,125	314,605	(NA)	(NA)	(NA)
1950 <sup>2</sup> .....	(NA)	(NA)	(NA)	18,988	64,341	15,630	34,014	50,603	143,627	112,134	250,672	(NA)	(NA)	(NA)
1949 <sup>2</sup> .....	(NA)	(NA)	(NA)	17,363	54,087	14,232	28,812	41,015	105,590	95,120	195,621	(NA)	(NA)	(NA)
1947.....	85	112	(NA)	21,595	60,529	18,255	37,486	47,761	113,305	98,407	206,167	(NA)	87	90
1939.....	(NA)	85	(NA)	(NA)	(NA)	10,415	(NA)	12,148	38,522	25,354	63,876	(NA)	(NA)	(NA)
1937.....	(NA)	73	(NA)	14,442	17,113	13,023	(NA)	14,157	34,300	29,494	63,794	(NA)	(NA)	(NA)
1933.....	(NA)	58	(NA)	6,982	6,701	6,084	(NA)	5,075	14,466	10,789	25,255	(NA)	(NA)	(NA)
1929.....	(NA)	67	(NA)	9,228	13,896	8,092	(NA)	10,777	30,756	25,408	56,164	(NA)	(NA)	(NA)
1921.....	(NA)	40	(NA)	2,418	2,827	2,026	(NA)	1,948	6,954	6,076	13,030	(NA)	(NA)	(NA)
1919.....	(NA)	46	(NA)	4,184	5,332	3,654	(NA)	3,732	11,030	12,948	23,978	(NA)	(NA)	(NA)
1914.....	(NA)	32	(NA)	1,121	703	962	(NA)	484	1,454	1,360	2,814	(NA)	(NA)	(NA)
INDUSTRY 3293.—GASKETS AND INSULATIONS														
1963.....	282	295	111	16,825	94,441	12,684	25,906	62,301	160,734	116,978	279,226	8,865	81	78
1962 <sup>2</sup> .....	(NA)	(NA)	(NA)	14,689	79,916	10,984	23,067	49,526	132,186	108,914	238,466	8,225	(NA)	(NA)
1961 <sup>2</sup> .....	(NA)	(NA)	(NA)	13,722	73,105	9,903	21,107	43,585	121,164	101,908	222,708	(5,597)	(NA)	(NA)
1960 <sup>2</sup> .....	(NA)	(NA)	(NA)	13,807	70,739	9,955	20,987	42,538	114,318	95,501	210,435	(8,402)	(NA)	(NA)
1959 <sup>2</sup> .....	(NA)	(NA)	(NA)	14,377	73,179	10,749	21,820	48,410	122,575	98,921	219,452	(9,393)	(NA)	(NA)
1958.....	271	282	99	13,494	65,078	9,925	19,502	41,518	105,211	82,976	188,684	5,699	87	69
1957 <sup>2</sup> .....	(NA)	(NA)	(NA)	12,898	61,204	9,827	19,482	38,200	91,781	70,378	163,752	4,863	(NA)	(NA)
1956 <sup>2</sup> .....	(NA)	(NA)	(NA)	13,252	61,192	10,186	20,842	39,546	91,609	74,799	163,204	6,313	(NA)	(NA)
1955 <sup>2</sup> .....	(NA)	(NA)	(NA)	13,788	59,303	10,767	22,320	40,519	92,854	79,902	167,793	5,066	(NA)	(NA)
1954.....	(NA)	237	87	12,807	55,115	10,128	20,340	37,241	87,253	78,615	166,073	4,954	86	70
1953 <sup>2</sup> .....	(NA)	(NA)	(NA)	15,758	63,443	13,233	26,299	48,451	102,063	80,732	182,795	(NA)	(NA)	(NA)
1952 <sup>2</sup> .....	(NA)	(NA)	(NA)	16,632	70,305	13,701	28,705	52,416	112,518	88,169	200,713	(NA)	(NA)	(NA)
1951 <sup>2</sup> .....	(NA)	(NA)	(NA)	18,575	72,295	15,771	33,991	55,059	119,909	104,902	224,837	(NA)	(NA)	(NA)
1950 <sup>2</sup> .....	(NA)	(NA)	(NA)	15,581	52,838	12,811	27,088	38,709	87,365	79,586	166,977	(NA)	(NA)	(NA)
1949 <sup>2</sup> .....	(NA)	(NA)	(NA)	14,112	45,573	11,224	22,940	32,281	76,922	66,888	137,836	(NA)	(NA)	(NA)
1947.....	(NA)	193	74	13,178	36,667	10,923	21,780	27,476	66,568	53,503	120,093	3,966	83	75
1939.....	(NA)	134	(NA)	7,531	11,169	5,907	(NA)	7,190	19,562	17,608	37,170	(NA)	(NA)	(NA)
1937.....	(NA)	125	(NA)	7,038	9,537	5,934	(NA)	6,930	17,506	15,048	32,554	(NA)	(NA)	(NA)
1935.....	(NA)	124	(NA)	5,755	7,062	4,774	(NA)	4,742	12,490	11,768	24,258	(NA)	(NA)	(NA)
1933.....	(NA)	118	(NA)	(NA)	(NA)	4,285	(NA)	3,785	10,662	8,728	19,390	(NA)	(NA)	(NA)

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3293.—GASKETS AND INSULATIONS—Continued														
1931.....	(NA)	131	(NA)	(NA)	(NA)	4,120	(NA)	4,545	12,394	10,253	22,647	(NA)	(NA)	(NA)
1929.....	(NA)	163	(NA)	7,799	12,714	6,477	(NA)	8,746	22,454	20,602	43,056	(NA)	(NA)	(NA)
1927.....	(NA)	159	(NA)	7,479	12,142	5,946	(NA)	7,905	23,251	19,794	43,045	(NA)	(NA)	(NA)
1925.....	(NA)	172	(NA)	7,680	12,066	6,086	(NA)	8,072	23,499	20,372	43,871	(NA)	(NA)	(NA)
1923.....	(NA)	142	(NA)	6,322	9,311	5,064	(NA)	6,432	17,142	15,849	32,991	(NA)	(NA)	(NA)
1921.....	(NA)	157	(NA)	6,074	8,447	4,877	(NA)	5,329	13,128	15,984	29,112	(NA)	(NA)	(NA)
1919.....	(NA)	169	(NA)	7,689	10,366	6,147	(NA)	7,103	17,800	22,725	40,525	(NA)	(NA)	(NA)
1914.....	(NA)	149	(NA)	5,260	4,000	4,213	(NA)	2,525	6,037	8,176	14,213	(NA)	(NA)	(NA)
1909.....	(NA)	153	(NA)	4,886	3,168	3,648	(NA)	1,811	5,510	6,650	12,160	(NA)	(NA)	(NA)
1904.....	(NA)	106	(NA)	3,184	1,868	2,734	(NA)	1,273	5,056	3,896	8,952	(NA)	(NA)	(NA)
1899.....	(NA)	97	(NA)	1,437	851	1,147	(NA)	525	1,948	1,546	3,494	(NA)	(NA)	(NA)
INDUSTRY 3295.—MINERALS, GROUND OR TREATED														
1963 <sup>3 4</sup> .....	313	415	97	7,330	41,567	5,688	11,749	29,643	102,079	101,881	204,393	11,873	94	86
1962 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	(8,570)	(48,954)	(6,535)	(13,955)	(35,161)	(128,286)	(102,569)	(226,267)	(21,118)	(NA)	(NA)
1961 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	(8,674)	(47,742)	(6,552)	(14,248)	(34,256)	(126,688)	(104,751)	(232,709)	(35,515)	(NA)	(NA)
1960 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	(9,276)	(50,328)	(7,190)	(15,160)	(36,372)	(137,322)	(102,036)	(236,520)	(14,612)	(NA)	(NA)
1959 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	(8,910)	(47,805)	(6,990)	(14,454)	(34,721)	(136,744)	(107,588)	(244,565)	(26,581)	(NA)	(NA)
1958 <sup>4 5</sup> .....	300	424	111	8,302	42,277	6,496	13,512	30,504	115,538	101,530	219,086	9,486	96	85
1958 (old) <sup>4</sup> .....	(NA)	386	100	7,557	38,288	5,988	12,487	28,180	104,688	88,635	195,032	6,400	95	84
1957 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	8,905	44,965	7,415	15,794	34,708	123,642	87,870	207,183	(S)	95	90
1956 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	8,594	41,953	7,183	15,369	32,252	116,072	79,604	194,871	23,224	(NA)	(NA)
1955 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	8,447	38,280	6,998	15,025	28,376	105,327	65,816	170,739	(S)	(NA)	(NA)
1954.....	284	353	108	7,699	32,404	6,401	13,784	24,312	90,752	63,477	154,014	10,226	98	87
1953 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	9,963	39,315	8,424	18,156	30,458	96,961	62,361	159,322	(NA)	(NA)	(NA)
1950 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	10,291	33,136	7,884	18,133	23,070	79,405	59,732	139,137	(NA)	(NA)	(NA)
1947.....	(NA)	217	(NA)	8,873	24,126	7,417	(NA)	18,356	55,556	34,643	90,199	8,780	94	88
1939.....	(NA)	229	(NA)	(NA)	(NA)	5,229	(NA)	5,347	23,445	14,496	37,941	(NA)	(NA)	(NA)
INDUSTRY 3296.—MINERAL WOOL														
1963 <sup>4</sup> .....	89	123	67	14,733	92,347	11,647	24,781	69,089	206,846	186,772	391,873	37,956	90	96
1962 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	(14,788)	(93,342)	(11,869)	(24,762)	(66,728)	(212,901)	(188,379)	(398,466)	(15,129)	(NA)	(NA)
1961 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	(13,460)	(78,191)	(10,807)	(22,970)	(57,835)	(186,152)	(163,602)	(347,363)	(13,560)	(NA)	(NA)
1960 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	(12,849)	(70,514)	(10,288)	(20,583)	(51,636)	(165,179)	(144,160)	(307,105)	(15,254)	(NA)	(NA)
1959 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	(13,358)	(71,625)	(10,444)	(22,491)	(52,599)	(166,595)	(144,856)	(309,009)	(13,834)	(NA)	(NA)
1958 <sup>4 5</sup> .....	74	102	62	11,893	59,109	9,026	18,705	42,742	133,453	107,543	240,922	10,405	95	95
1958 (old) <sup>4 5</sup> .....	(NA)	95	61	11,831	58,839	8,970	18,599	42,526	132,533	106,299	238,764	10,383	94	95
1957 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	12,016	58,486	9,403	18,899	42,800	113,855	93,569	206,900	13,323	95	96
1956 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	11,645	56,680	9,113	18,734	41,503	109,527	90,661	197,606	25,884	(NA)	(NA)
1955 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	12,300	53,787	9,411	19,573	39,861	117,434	85,057	200,754	9,404	(NA)	(NA)
1954.....	66	85	56	10,244	44,049	7,555	15,931	31,191	91,681	71,816	162,682	6,068	95	93
1953 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	10,506	43,110	8,661	18,354	34,075	83,035	66,252	149,287	(NA)	(NA)	(NA)
1952 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	10,340	37,201	8,491	18,236	28,702	71,572	63,386	134,958	(NA)	(NA)	(NA)
1951 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	10,374	34,787	8,583	18,924	26,597	70,862	59,516	130,378	(NA)	(NA)	(NA)
1950 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	9,244	28,731	7,544	15,630	21,873	67,955	44,594	112,549	(NA)	(NA)	(NA)
1949 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	8,294	24,872	6,573	13,547	17,841	49,414	40,856	90,270	(NA)	(NA)	(NA)
1947.....	73	91	66	8,874	22,924	7,363	15,519	18,134	36,840	36,291	73,131	13,191	(D)	(D)
1939.....	(NA)	49	(NA)	(NA)	(NA)	1,848	(NA)	1,796	4,536	3,377	7,913	(NA)	(NA)	(NA)
1937.....	(NA)	32	(NA)	(NA)	(NA)	1,701	(NA)	1,835	4,330	3,129	7,459	(NA)	(NA)	(NA)
INDUSTRY 3297.—NONCLAY REFRACTORIES														
1963.....	51	93	68	8,572	53,367	6,810	13,485	38,673	129,139	123,124	250,195	9,346	94	88
1962 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	(7,634)	(44,943)	(5,978)	(11,517)	(32,044)	(102,910)	(94,816)	(197,694)	(6,272)	(NA)	(NA)
1961 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	(8,065)	(46,187)	(6,325)	(11,868)	(33,053)	(106,264)	(92,271)	(199,817)	(9,349)	(NA)	(NA)
1960 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	(9,380)	(51,096)	(7,558)	(14,072)	(37,658)	(118,634)	(97,597)	(213,396)	(7,068)	(NA)	(NA)
1959 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	(9,388)	(51,643)	(7,619)	(14,530)	(39,028)	(121,401)	(94,960)	(209,580)	(10,010)	(NA)	(NA)
1958 <sup>4 5</sup> .....	50	84	66	8,013	41,167	6,325	11,657	30,352	102,362	73,770	177,643	14,933	95	89
1958 (old) <sup>5</sup> .....	(NA)	89	71	8,459	43,855	6,660	12,309	32,179	111,408	81,655	194,953	17,371	94	90
1957 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	10,714	52,014	8,997	16,743	41,176	128,490	88,676	212,324	19,751	93	86
1956 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	10,770	50,868	9,129	17,470	40,001	126,876	87,520	210,692	16,366	(NA)	(NA)
1955 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	9,542	43,063	8,128	15,891	34,038	109,168	74,759	180,862	4,200	(NA)	(NA)
1954.....	49	77	59	8,559	34,260	7,150	12,890	26,124	77,443	78,717	132,130	3,739	96	90
1953 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	11,953	49,159	10,269	19,840	39,825	108,696	77,538	186,234	(NA)	(NA)	(NA)
1952 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	11,498	43,068	10,048	18,701	34,787	84,861	70,256	155,130	(NA)	(NA)	(NA)
1951 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	11,696	44,404	10,295	20,944	36,927	95,553	80,795	176,363	(NA)	(NA)	(NA)
1950 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	9,818	32,129	8,653	16,275	26,478	67,759	55,611	122,930	(NA)	(NA)	(NA)
1949 <sup>2 4</sup> .....	(NA)	(NA)	(NA)	9,553	27,341	8,506	14,297	22,243	53,907	40,179	93,753	(NA)	(NA)	(NA)
1947.....	42	63	50	10,273	27,783	8,951	17,626	22,963	58,022	35,774	90,337	5,772	94	91
1939.....	(NA)	41	(NA)	(NA)	(NA)	4,542	(NA)	4,936	13,464	9,760	23,224	(NA)	(NA)	(NA)

See footnotes at end of table.

TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
	INDUSTRY 3299.—NONMETALLIC PRODUCTS, N.E.C.													
1963.....	313	320	56	5,471	27,094	4,361	8,266	18,231	53,289	43,408	96,188	2,187	86	96
1962 <sup>2</sup> .....	(NA)	(NA)	(NA)	(2,031)	(5,623)	(1,773)	(2,369)	(3,743)	(18,737)	(23,792)	(43,091)	(1,322)	(NA)	(NA)
1961 <sup>2</sup> .....	(NA)	(NA)	(NA)	(1,870)	(5,769)	(1,557)	(2,980)	(4,321)	(19,800)	(26,898)	(48,261)	(1,480)	(NA)	(NA)
1960 <sup>2</sup> .....	(NA)	(NA)	(NA)	(2,250)	(11,518)	(1,701)	(5,676)	(5,628)	(23,366)	(29,106)	(52,571)	(1,421)	(NA)	(NA)
1959 <sup>2</sup> .....	(NA)	(NA)	(NA)	(7,210)	(25,117)	(6,077)	(13,802)	(18,999)	(42,325)	(37,028)	(79,863)	(1,071)	(NA)	(NA)
1958 <sup>4</sup> .....	252	254	51	4,316	16,982	3,406	6,535	11,586	31,973	26,865	58,947	1,194	85	85
1958 (old) <sup>4</sup> ...	(NA)	148	39	3,503	14,839	2,610	5,056	9,168	29,578	30,351	60,020	1,034	82	84
1957 <sup>2</sup> .....	(NA)	(NA)	(NA)	4,391	17,746	3,364	6,767	11,648	29,944	(NA)	53,758	(S)	(NA)	(NA)
1956 <sup>2</sup> .....	(NA)	(NA)	(NA)	4,723	19,504	3,703	7,483	13,182	35,295	26,469	61,073	(S)	(NA)	(NA)
1955 <sup>2</sup> .....	(NA)	(NA)	(NA)	4,683	17,827	3,750	7,450	12,085	30,203	25,962	55,665	(S)	(NA)	(NA)
1954.....	96	121	38	4,483	15,835	3,605	7,126	10,943	30,261	26,054	56,604	1,574	84	94
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	4,292	13,771	3,590	7,272	10,601	29,344	20,548	49,892	(NA)	(NA)	(NA)
1947.....	(NA)	99	(NA)	2,579	6,459	2,184	(NA)	4,744	13,855	12,087	25,942	(NA)	(NA)	(NA)
1939.....	(NA)	(NA)	(NA)	(NA)	(NA)	1,563	(NA)	1,467	5,002	3,345	8,347	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>This is a minimum percentage; the exact percentage is withheld to avoid disclosing figures of individual companies.

<sup>2</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>3</sup>Plants producing roofing granules and plants producing dead-burned magnesite or magnesite in conjunction with mining operations are classified in the mineral industries for 1963. In prior years these plants were included in industry 3295, Minerals, Ground or Treated. Prior years' data have not been revised to avoid disclosing figures of individual companies.

<sup>4</sup>Establishments primarily engaged in producing exfoliated vermiculate were reclassified from industry 3296, Mineral Wool, to industry 3295, Minerals, Ground or Treated, in 1963. For 1958 the data have been revised to reflect this change; however, data for the years 1959-1962 have not. The value of shipments of these plants was approximately \$11 million in 1958.

<sup>5</sup>A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so that data for the industry prior to 1953 are not directly comparable. Details of this revision are described in the 1958 Census of Manufactures Volume II, Industry Statistics.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3291.—ABRASIVE PRODUCTS													
Total.....	378	149	28,170	186,971	18,583	36,695	107,628	416,415	287,458	704,212	15,506	23,955	277,706
New England.....	47	24	6,041	41,406	3,956	7,636	23,163	83,822	55,759	140,624	3,350	6,519	61,193
Massachusetts.....	26	15	5,267	37,338	3,407	6,549	20,657	74,800	48,100	123,963	3,128	5,655	53,212
Connecticut.....	16	6	531	2,932	362	719	1,728	6,894	6,132	12,943	137	529	5,737
Middle Atlantic....	110	49	10,423	68,958	7,130	14,288	42,609	132,917	105,447	238,556	5,535	9,353	98,215
New York.....	51	23	8,045	53,933	5,483	11,003	33,291	107,364	85,243	193,353	4,548	7,219	78,811
New Jersey.....	26	9	727	4,640	512	1,031	2,840	6,981	5,986	12,920	224	591	4,789
Pennsylvania.....	33	17	1,651	10,385	1,135	2,254	6,478	18,572	14,218	32,283	763	1,543	14,615
North Central.....	168	62	10,620	70,513	6,698	13,168	37,960	185,231	112,658	296,794	5,789	7,219	110,012
Indiana.....	8	2	119	502	97	169	355	1,277	1,000	2,280	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Illinois.....	53	22	1,914	11,292	1,431	2,892	7,543	38,769	22,998	61,499	1,639	1,355	25,174
Michigan.....	51	18	1,679	10,114	1,182	2,299	6,043	21,359	17,403	38,745	1,000	1,488	15,671
South.....	21	5	403	1,839	329	662	1,228	3,613	5,054	8,762	113	158	1,028
West.....	32	9	683	4,255	470	941	2,668	10,832	8,540	19,476	719	706	7,258
INDUSTRY 3292.—ASBESTOS PRODUCTS													
Total.....	124	84	19,516	118,024	15,738	32,884	89,766	269,067	240,725	509,236	12,381	21,292	235,487
New England.....	14	9	2,203	13,567	1,743	3,586	10,425	24,548	18,469	43,233	516	2,119	19,455
Massachusetts....	7	3	248	1,253	202	428	894	2,757	2,249	5,051	18	217	2,524
Middle Atlantic....	31	21	6,492	40,543	5,207	10,753	30,126	83,224	72,238	155,430	3,699	8,474	82,550
New York.....	6	4	1,593	9,896	1,289	2,610	7,003	16,169	19,782	35,750	922	1,528	12,303
New Jersey.....	16	11	2,810	17,570	2,306	4,861	14,071	41,462	37,543	78,908	1,576	4,635	46,843
Pennsylvania.....	9	6	2,089	13,077	1,612	3,282	9,052	25,593	14,913	40,772	1,201	2,311	23,404
East North Central.	26	17	3,981	24,468	3,175	6,793	19,064	58,675	59,905	117,746	2,428	4,335	56,721
Indiana.....	6	5	981	5,037	748	1,445	3,553	8,677	6,949	16,559	211	( <sup>2</sup> )	( <sup>2</sup> )
Illinois.....	14	9	2,541	16,891	2,041	4,517	13,384	43,930	46,963	89,911	1,274	3,027	41,325
West North Central.	6	4	452	2,805	375	760	2,219	7,374	5,785	13,411	232	729	8,019
South.....	29	20	4,450	22,869	3,731	7,664	17,733	53,944	45,713	99,332	3,039	3,738	37,796
Louisiana.....	6	6	953	5,553	792	1,646	4,381	12,447	11,230	23,207	643	1,048	11,092
Texas.....	8	5	1,043	5,974	845	1,883	4,470	18,125	18,099	35,977	1,282	582	8,282
West.....	18	13	1,938	13,773	1,507	3,328	10,199	41,302	38,615	80,084	2,467	1,897	30,946
California.....	18	13	1,938	13,773	1,507	3,328	10,199	41,302	38,615	80,084	2,467	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3293.—GASKETS AND INSULATIONS													
Total.....	295	111	16,825	94,441	12,684	25,906	62,301	160,734	116,978	279,226	8,865	13,494	105,211
New England.....	17	9	930	5,356	639	1,273	2,903	9,214	6,082	15,144	236	911	6,687
Massachusetts.....	13	5	461	2,930	298	585	1,383	5,022	4,219	9,087	(D)	423	3,277
Connecticut.....	4	4	469	2,426	341	688	1,520	4,192	1,863	6,057	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Middle Atlantic....	77	28	4,299	26,542	3,269	6,704	18,739	45,480	29,900	76,426	1,690	3,188	24,905
New York.....	34	8	491	2,662	341	723	1,424	4,300	5,911	10,293	145	479	3,368
New Jersey.....	24	12	2,328	15,138	1,804	3,736	11,256	27,108	13,920	41,601	483	522	5,317
Pennsylvania.....	19	8	1,480	8,742	1,124	2,245	6,059	14,072	10,069	24,532	1,062	2,187	16,220
East North Central.	106	46	8,682	47,920	6,604	13,377	31,499	80,955	59,347	140,650	5,343	7,619	58,281
Ohio.....	25	12	1,044	5,346	808	1,640	3,542	8,993	7,133	16,140	300	790	5,402
Indiana.....	10	3	1,147	5,443	1,019	2,100	4,424	10,544	6,574	17,134	1,112	749	5,362
Illinois.....	43	21	5,364	30,663	3,854	7,827	18,911	49,710	35,634	85,579	3,480	4,768	37,167
Michigan.....	21	8	957	5,562	789	1,584	4,084	10,240	8,658	18,983	357	1,124	8,864
Wisconsin.....	7	2	170	906	134	226	538	1,468	1,348	2,814	94	188	1,486
West North Central.	17	2	256	1,163	210	421	823	2,034	2,424	4,408	62	77	703
Minnesota.....	6	1	127	548	111	214	429	1,032	844	1,850	26	( <sup>2</sup> )	( <sup>2</sup> )
South.....	33	13	1,527	6,887	1,242	2,618	4,731	11,582	11,710	23,425	1,057	864	5,605
Texas.....	13	7	535	2,796	407	908	1,691	5,017	3,409	8,347	(D)	448	3,290
Mountain.....	3	-	6	28	4	8	20	45	116	164	5	835	9,030
Pacific.....	42	13	1,125	6,545	716	1,505	3,586	11,424	7,399	19,009	472	782	8,601
California.....	36	13	1,114	6,489	707	1,486	3,540	11,323	7,306	18,801	467		

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3295.—MINERALS, GROUND OR TREATED <sup>3</sup>													
Total.....	415	97	7,330	41,567	5,688	11,749	29,643	102,079	101,881	204,393	11,873	8,302	115,538
New England.....	10	1	121	718	90	177	363	1,249	1,076	2,357	81	(D)	(D)
Middle Atlantic....	91	23	1,742	10,632	1,335	2,811	7,589	21,942	25,233	47,037	2,750	(D)	(D)
New York.....	17	4	305	1,694	239	498	1,321	3,137	2,674	5,866	270	(D)	(D)
New Jersey.....	23	5	479	3,115	327	686	1,933	7,149	9,049	16,101	918	(D)	(D)
Pennsylvania.....	51	14	958	5,823	769	1,627	4,335	11,657	13,510	25,070	1,562	(D)	(D)
East North Central.	73	26	1,558	9,880	1,178	2,382	6,498	22,706	22,917	45,752	1,808	(D)	(D)
Ohio.....	27	10	463	2,820	386	816	2,276	6,848	2,772	9,723	660	495	6,459
Indiana.....	7	2	149	1,126	115	241	777	2,024	1,398	3,436	(D)	310	4,412
Illinois.....	21	9	563	3,450	408	783	2,125	7,057	7,357	14,421	329	(2)	(2)
Michigan.....	11	3	219	1,356	171	353	869	4,507	9,044	13,559	371	(2)	(2)
Wisconsin.....	7	2	164	1,128	98	189	451	2,270	2,346	4,613	(D)	(2)	(2)
West North Central.	19	-	133	643	101	197	437	2,646	1,658	4,295	25	(D)	(D)
South Atlantic.....	49	15	1,128	5,599	913	1,931	4,352	13,055	10,776	23,870	1,194	(D)	(D)
Maryland.....	6	2	165	955	122	265	704	2,104	1,214	3,321	241	(D)	(D)
Virginia.....	8	3	124	554	101	228	450	1,131	1,297	2,445	114	(2)	(2)
North Carolina...	11	3	215	946	166	354	634	2,062	2,025	3,986	179	(D)	(D)
Georgia.....	6	4	431	2,118	375	748	1,813	5,290	3,788	9,202	379	(2)	(2)
East South Central.	27	9	581	2,486	503	918	1,958	8,713	5,100	13,776	384	(D)	(D)
Alabama.....	14	5	302	1,004	268	397	811	4,030	1,505	5,569	59	(D)	(D)
West South Central.	46	11	753	3,707	595	1,290	2,661	11,080	15,527	27,397	2,238	(D)	(D)
Texas.....	33	8	528	2,591	424	945	1,866	5,838	7,194	13,374	2,099	(2)	(2)
Mountain.....	36	3	332	1,802	264	521	1,415	4,662	4,224	8,751	485	559	9,989
Pacific.....	64	9	982	6,100	709	1,522	4,370	16,026	15,370	31,158	2,908	1,075	18,088
California.....	49	9	887	5,648	643	1,392	4,070	14,936	14,289	28,978	2,751	(D)	(D)
INDUSTRY 3296.—MINERAL WOOL													
Total.....	123	67	14,733	92,347	11,647	24,781	69,089	206,846	186,772	391,873	37,956	11,898	133,453
Middle Atlantic....	24	13	2,406	15,397	1,874	3,974	11,106	36,293	31,509	67,643	5,753	(D)	(D)
New York.....	8	2	122	598	96	188	457	1,016	924	1,930	33	150	997
New Jersey.....	7	6	1,521	10,443	1,160	2,521	7,446	23,097	25,538	48,503	5,277	(D)	(D)
Pennsylvania.....	9	5	763	4,356	618	1,265	3,203	12,180	5,047	17,210	443	(D)	(D)
North Central.....	47	30	8,436	51,456	6,847	14,665	41,501	105,807	106,052	209,790	12,528	7,767	85,494
Indiana.....	13	10	1,757	9,946	1,461	3,086	7,813	18,530	15,187	33,085	1,823	1,907	19,247
East South Central.	10	8	460	2,318	349	743	1,439	5,336	4,826	10,153	(D)	(D)	(D)
Alabama.....	3	3	220	1,233	178	407	870	3,075	1,940	5,018	95	187	1,559
West South Central.	9	5	352	1,766	217	432	997	3,734	3,679	7,214	(D)	(D)	(D)
Pacific.....	19	7	1,956	14,852	1,458	3,155	8,977	34,107	29,407	63,611	4,168	1,217	15,643
All other divisions	14	4	1,123	6,558	902	1,812	5,069	21,569	11,299	33,462	1,048	388	3,860
INDUSTRY 3297.—NONCLAY REFRACTORIES													
Total.....	93	68	8,572	53,367	6,810	13,485	38,673	129,139	123,124	250,195	9,346	8,013	102,362
New England.....	5	4	190	1,176	134	279	725	2,383	1,802	4,328	94	198	1,904
Middle Atlantic....	36	25	3,416	21,762	2,485	4,865	14,344	41,636	37,281	79,458	2,388	3,598	36,325
New York.....	5	4	589	4,128	363	744	2,330	9,627	6,451	16,115	777	(2)	(2)
New Jersey.....	7	4	782	5,224	487	995	2,722	8,948	10,389	19,321	561	(2)	(2)
Pennsylvania.....	24	17	2,045	12,410	1,635	3,126	9,292	23,061	20,441	44,022	1,050	2,432	25,279
East North Central.	27	21	2,015	11,970	1,720	3,286	9,216	37,429	33,947	70,588	1,646	1,759	25,941
Ohio.....	13	11	995	6,134	838	1,632	4,499	15,452	14,556	29,971	925	807	11,414
Indiana.....	4	4	605	3,641	531	1,021	3,031	14,359	12,473	25,983	520	(2)	(2)
South.....	16	12	2,500	15,814	2,096	4,323	12,342	39,398	40,176	76,915	5,021	1,997	29,703
West.....	9	6	451	2,645	375	732	2,046	8,293	9,918	18,906	197	461	8,489

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
	INDUSTRY 3299.—NONMETALLIC PRODUCTS, N.E.C.												
Total.....	320	56	5,471	27,094	4,361	8,266	18,231	53,289	43,408	96,188	2,187	4,316	31,973
Middle Atlantic....	91	21	1,884	10,480	1,404	2,633	6,528	19,813	16,755	36,724	949	1,528	13,583
New York.....	47	9	1,104	6,546	788	1,473	3,863	12,579	10,567	23,331	505	( <sup>2</sup> )	( <sup>2</sup> )
New Jersey.....	21	5	356	1,985	270	525	1,297	4,065	2,942	6,987	372	( <sup>2</sup> )	( <sup>2</sup> )
Pennsylvania.....	23	7	424	1,949	346	635	1,368	3,169	3,246	6,406	72	422	3,053
East North Central.	64	13	1,334	6,248	1,119	2,168	4,758	13,872	10,581	24,293	571	788	5,697
Ohio.....	19	5	541	2,221	431	755	1,503	5,368	5,214	10,506	122	( <sup>2</sup> )	( <sup>2</sup> )
Illinois.....	23	5	576	3,078	515	1,116	2,622	6,679	4,234	10,845	420	296	2,685
Michigan.....	11	2	123	625	104	168	413	1,283	550	1,856	19	( <sup>2</sup> )	( <sup>2</sup> )
West North Central.	25	1	132	578	111	203	468	1,056	544	1,571	19	211	999
East South Central.	9	1	104	353	92	183	293	576	434	1,056	27	102	1,057
West South Central.	16	1	218	1,043	178	359	825	2,311	2,505	4,492	170	74	502
Pacific.....	63	6	452	2,973	324	582	1,576	6,100	5,848	11,920	184	220	2,318
California.....	54	5	388	2,660	269	482	1,350	5,536	5,597	11,107	179	208	2,243
All other divisions	52	13	1,347	5,419	1,133	2,138	3,783	9,561	6,741	16,132	267	1,393	7,817

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3291, Abrasive Products: New England—New Hampshire, 3 (100-249); Rhode Island, 2 (100-249); East North Central—Ohio, 43 (1,000-2,499); Wisconsin, 8 (250-499); West North Central—Minnesota, 2 (2,500-4,999); Missouri, 2 (20-99); Kansas, 1 (1-19); South Atlantic—North Carolina, 3 (103); Georgia, 5 (20-99); Florida, 2 (1-19); East South Central—Tennessee, 4 (20-99); Alabama, 2 (20-99); Mississippi, 2 (100-249); West South Central—Arkansas, 2 (1-19); Texas, 1 (1-19); Mountain—Idaho, 2 (1-19); New Mexico, 1 (1-19); Pacific—Washington, 2 (100-249); Oregon, 2 (20-99); California, 25 (466).

SIC 3292, Asbestos Products: New England—New Hampshire, 2 (250-499); Connecticut, 5 (1,000-2,499); East North Central—Ohio, 4 (250-499); Michigan, 1 (1-19); Wisconsin, 1 (1-19); West North Central—Missouri, 5 (250-499); Kansas, 1 (1-19); South Atlantic—Virginia, 3 (505); North Carolina, 3 (500-999); South Carolina, 2 (500-999); Georgia, 3 (163); Florida, 1 (1-19); East South Central—Alabama, 1 (20-99); Mississippi, 2 (100-249).

SIC 3293, Gaskets and Insulations: West North Central—Missouri, 7 (20-99); Nebraska, 1 (1-19); Kansas, 3 (20-99); South Atlantic—Maryland, 3 (20-99); Virginia, 1 (250-499); West Virginia, 1 (20-99); North Carolina, 2 (1-19); Georgia, 3 (1-19); Florida, 1 (1-19); East South Central—Tennessee, 3 (250-499); Alabama, 2 (20-99); Mississippi, 1 (1-19); West South Central—Oklahoma, 3 (20-99); Mountain—Colorado, 2 (1-19); New Mexico, 1 (1-19); Pacific—Washington, 5 (1-19); Oregon, 1 (1-19).

SIC 3295, Minerals, Ground or Treated: New England—New Hampshire, 1 (1-19); Massachusetts, 8 (100-249); Connecticut, 1 (1-19); West North Central—Minnesota, 5 (20-99); Missouri, 7 (20-99); North Dakota, 1 (1-19); South Dakota, 2 (1-19); Nebraska, 3 (20-99); Kansas, 1 (1-19); South Atlantic—Delaware, 1 (1-19); West Virginia, 7 (20-99); South Carolina, 3 (20-99); Florida, 7 (20-99); East South Central—Kentucky, 3 (20-99); Tennessee, 9 (20-99); Mississippi, 1 (100-249); West South Central—Arkansas, 3 (20-99); Louisiana, 9 (100-249); Oklahoma, 1 (1-19); Mountain—Montana, 8 (20-99); Idaho, 2 (1-19); Colorado, 8 (20-99); New Mexico, 2 (1-19); Arizona, 8 (20-99); Utah, 7 (141); Nevada, 1 (1-19); Pacific—Washington, 9 (20-99); Oregon, 5 (20-99); Hawaii, 1 (1-19).

SIC 3296, Mineral Wool: New England—Massachusetts, 2 (20-99); Rhode Island, 1 (1-19); East North Central—Ohio, 13 (3,306); Illinois, 6 (113); Michigan, 3 (20-99); Wisconsin, 2 (100-249); West North Central—Minnesota, 3 (130); Missouri, 2 (250-499); South Dakota, 1 (1-19); Kansas, 4 (1,000-2,499); South Atlantic—Virginia, 1 (1-19); West Virginia, 2 (250-499); South Carolina, 1 (1-19); Georgia, 1 (1-19); Florida, 3 (504); East South Central—Kentucky, 2 (20-99); Tennessee, 5 (100-249); West South Central—Arkansas, 1 (20-99); Louisiana, 1 (1-19); Texas, 7 (100-249); Mountain—Colorado, 2 (100-249); Arizona, 1 (1-19); Pacific—Washington, 4 (20-99); California, 14 (1,872); Hawaii, 1 (1-19).

SIC 3297, Nonclay Refractories: New England—Massachusetts, 2 (20-99); Connecticut, 3 (100-249); East North Central—Illinois, 7 (248); Michigan, 3 (167); South Atlantic—Delaware, 1 (1-19); Maryland, 3 (1,000-2,499); West Virginia, 1 (20-99); North Carolina, 2 (20-99); East South Central—Kentucky, 2 (500-999); Tennessee, 2 (100-249); Alabama, 2 (20-99); Mississippi, 1 (250-499); West South Central—Texas, 2 (20-99); Mountain—Montana, 1 (1-19); Colorado, 2 (100-249); Utah, 2 (20-99); Pacific—California, 4 (235).

SIC 3299, Nonmetallic Products, N.E.C.: New England—Massachusetts, 11 (291); East North Central—Indiana, 3 (1-19); Wisconsin, 8 (20-99); West North Central—Minnesota, 5 (20-99); Iowa, 3 (1-19); Missouri, 14 (20-99); South Dakota, 1 (1-19); Nebraska, 1 (1-19); Kansas, 1 (1-19); South Atlantic—Maryland, 2 (1-19); District of Columbia, 2 (20-99); Virginia, 4 (250-499); West Virginia, 2 (1-19); North Carolina, 4 (175); Georgia, 5 (136); Florida, 11 (20-99); East South Central—Kentucky, 4 (20-99); Tennessee, 1 (1-19); Alabama, 1 (1-19); Mississippi, 3 (20-99); West South Central—Arkansas, 1 (100-249); Louisiana, 1 (1-19); Oklahoma, 4 (1-19); Texas, 10 (20-99); Mountain—Wyoming, 1 (1-19); Colorado, 4 (1-19); New Mexico, 1 (1-19); Arizona, 2 (20-99); Utah, 1 (1-19); Nevada, 1 (1-19); Pacific—Washington, 5 (20-99); Oregon, 3 (1-19).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

<sup>3</sup>See footnotes 3 and 4 on table 1.

TABLE 3. Detailed Statistics: 1963

Item	Abrasive products (SIC 3291)	Asbestos products (SIC 3292)	Gaskets and insulations (SIC 3293)	Minerals, ground or treated (SIC 3295)	Mineral wool (SIC 3296)	Nonclay refractories (SIC 3297)	Nonmetallic products, n.e.c. (SIC 3299)
Primary product specialization ratio <sup>1</sup> .....	.70	.95	.81	.94	.90	.94	.86
Coverage ratio <sup>2</sup> .....	.95	.91	.78	.86	.96	.88	.96
Establishments, total.....number..	378	124	295	415	123	93	320
With 1 to 19 employees.....do....	229	40	184	318	56	25	264
With 20 to 99 employees.....do....	104	23	74	85	36	41	44
With 100 employees or more.....do....	45	61	37	12	31	27	12
Proprietors and working partners.....do....	111	14	90	123	18	4	217
All employees (average for the year).....do....	28,170	19,516	16,825	7,330	14,733	8,572	5,471
Payroll (all employees), total for year.....\$1,000..	186,971	118,024	94,441	41,567	92,347	53,367	27,094
Production workers:							
Average for the year.....number..	18,583	15,738	12,684	5,688	11,647	6,810	4,361
March.....do....	18,463	15,228	12,369	5,739	11,061	6,830	4,207
May.....do....	18,447	15,700	12,725	5,969	11,338	6,973	4,343
August.....do....	18,707	16,238	12,958	5,557	11,983	6,889	4,450
November.....do....	18,755	15,778	12,696	5,501	12,189	6,555	4,460
Man-hours.....1,000..	36,695	32,884	25,906	11,749	24,781	13,485	8,266
January-March.....do....	9,237	7,829	6,520	2,891	5,805	3,268	1,965
April-June.....do....	9,276	8,315	6,375	3,122	6,008	3,635	2,110
July-September.....do....	8,887	8,339	6,231	2,888	6,605	3,361	2,021
October-December.....do....	9,295	8,401	6,780	2,848	6,362	3,221	2,170
Wages.....\$1,000..	107,628	89,766	62,301	29,643	69,089	38,673	18,231
Cost of materials, etc., total.....do....	287,458	240,725	116,978	101,881	186,772	123,124	43,408
Materials, parts, containers, and supplies consumed.....do....	247,394	212,128	97,292	79,504	157,512	107,668	38,771
Cost of resales.....do....	28,198	19,505	14,750	10,206	9,851	6,789	2,452
Fuels consumed.....do....	4,598	3,670	2,297	6,880	11,167	5,320	1,304
Electric energy:							
Purchased:							
Quantity.....million kw.-hrs..	606	425	125	293	596	291	53
Cost.....\$1,000..	5,557	4,906	1,781	3,688	5,405	3,284	770
Generated less sold.....million kw.-hrs..	(D)	(D)	(D)	(D)	(D)	-	(D)
Contract work.....\$1,000..	1,711	516	858	1,603	2,837	63	111
Value of shipments (including resales), total.....do....	704,212	509,236	279,226	204,393	391,873	250,195	96,188
Value of resales.....do....	(D)	25,966	24,615	13,955	(D)	7,744	3,189
Value added by manufacture, adjusted.....do....	416,415	269,067	160,734	102,079	206,846	129,139	53,289
Manufacturers' inventories:							
Beginning of year, total.....do....	115,182	83,202	40,939	23,485	30,125	67,809	11,098
Finished products.....do....	50,653	49,342	18,925	10,706	13,721	28,125	3,832
Work-in-process.....do....	24,529	11,746	7,797	3,391	2,387	4,515	1,654
Materials, supplies, fuel, etc.....do....	40,000	22,114	14,217	9,388	14,017	35,169	5,612
End of year, total.....do....	115,017	82,827	40,535	23,488	32,388	71,279	11,296
Finished products.....do....	49,397	49,551	17,329	10,810	15,898	29,678	3,936
Work-in-process.....do....	25,441	12,093	7,879	2,854	1,955	5,030	2,059
Materials, supplies, fuel, etc.....do....	40,179	21,183	15,327	9,824	14,535	36,571	5,301
Expenditures for plant and equipment, total.....do....	16,368	13,670	9,331	12,934	38,179	9,484	4,622
New, total.....do....	15,506	12,381	8,865	11,873	37,956	9,346	2,187
New structures and additions to plant.....do....	2,562	2,613	2,849	2,559	10,225	2,316	599
New machinery and equipment.....do....	12,944	9,768	6,016	9,314	27,731	7,030	1,588
Used plant and equipment.....do....	862	1,289	466	1,061	223	138	2,435
Selected operating ratios:							
Payroll/Total employment.....	.637	.6048	.5613	.5671	.6268	.6226	.4941
Production workers/Total employment.....	.66	.81	.75	.78	.79	.79	.80
Man-hours/Production workers.....	1,975	2,089	2,042	2,066	2,128	1,980	1,884
Production worker wages/Man-hours.....	2.93	2.73	2.40	2.52	2.79	2.87	2.21
Cost of materials and payrolls/Total value of shipments.....	.67	.70	.76	.70	.71	.71	.74
Cost of materials/Total value of shipments.....	.41	.47	.42	.50	.48	.49	.45
Adjusted value added/Total employment.....	14,782	13,787	9,553	13,926	14,040	15,065	9,582
Salaries and wages/Adjusted value added.....	.45	.44	.59	.41	.45	.41	.52

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies, (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3291.—ABRASIVE PRODUCTS											
Establishments.....number..	378	107	62	60	72	32	26	11	4	1	3
All employees:											
Total.....do....	28,170	182	427	852	2,122	2,148	3,866	3,789	14,784	(D)	(D)
Payroll.....\$1,000..	186,971	982	2,380	4,724	11,882	12,274	22,584	22,468	109,677	(D)	(D)
Value added, adjusted.....do....	416,415	2,103	4,734	10,583	25,244	25,329	45,321	62,339	240,762	(D)	(D)
Value of shipments.....do....	704,212	4,549	9,170	19,823	52,322	49,439	84,776	99,314	384,819	(D)	(D)
Capital expenditures, new...do....	15,506	313	529	611	1,189	759	2,095	1,681	8,329	(D)	(D)
INDUSTRY 3292.—ASBESTOS PRODUCTS											
Establishments.....number..	124	17	6	17	10	13	34	21	4	2	-
All employees:											
Total.....do....	19,516	31	42	235	336	978	5,279	7,340	5,275	(D)	-
Payroll.....\$1,000..	118,024	167	231	1,172	1,834	5,009	31,485	44,691	33,435	(D)	-
Value added, adjusted.....do....	269,067	181	295	2,247	3,140	10,823	79,637	106,807	65,937	(D)	-
Value of shipments.....do....	509,236	559	652	5,372	6,159	19,573	159,589	213,401	103,931	(D)	-
Capital expenditures, new...do....	12,381	19	24	186	72	291	5,722	4,637	1,430	(D)	-
INDUSTRY 3293.—GASKETS AND INSULATIONS											
Establishments.....number..	295	91	51	42	53	21	22	10	2	3	-
All employees:											
Total.....do....	16,825	160	353	573	1,711	1,464	3,043	3,660	5,861	(D)	-
Payroll.....\$1,000..	94,441	931	1,742	3,154	9,534	7,460	16,894	19,909	34,817	(D)	-
Value added, adjusted.....do....	160,734	1,863	3,321	5,020	16,628	14,172	32,101	35,668	51,961	(D)	-
Value of shipments.....do....	279,226	3,665	7,194	10,449	33,709	27,044	54,954	58,353	83,858	(D)	-
Capital expenditures, new...do....	8,865	529	151	194	242	(D)	1,100	2,518	3,431	(D)	-
INDUSTRY 3295.—MINERALS, GROUND OR TREATED											
Establishments.....number..	415	127	89	102	63	22	11	1	-	-	-
All employees:											
Total.....do....	7,330	235	633	1,411	1,895	1,478	1,678	(D)	-	-	-
Payroll.....\$1,000..	41,567	1,202	3,016	7,621	10,682	8,892	10,154	(D)	-	-	-
Value added, adjusted.....do....	102,079	3,674	7,427	17,678	26,101	19,740	27,459	(D)	-	-	-
Value of shipments.....do....	204,393	6,940	15,822	37,248	48,317	38,548	57,518	(D)	-	-	-
Capital expenditures, new...do....	11,873	21,791	704	1,542	2,475	1,294	4,067	(D)	-	-	-
INDUSTRY 3296.—MINERAL WOOL											
Establishments.....number..	123	30	9	17	14	22	16	8	5	2	-
All employees:											
Total.....do....	14,733	33	60	228	413	1,584	2,726	2,713	6,976	(D)	-
Payroll.....\$1,000..	92,347	216	292	1,226	1,870	8,664	16,280	15,366	48,433	(D)	-
Value added, adjusted.....do....	206,846	399	609	2,317	6,049	19,465	40,726	41,791	95,490	(D)	-
Value of shipments.....do....	391,873	1,220	1,560	5,694	11,906	36,708	65,813	66,945	202,027	(D)	-
Capital expenditures, new...do....	37,956	3,500	(D)	(D)	(D)	15,654	3,801	2,969	12,032	(D)	-
INDUSTRY 3297.—NONCLAY REFRACTORIES											
Establishments.....number..	93	10	6	9	20	21	18	7	2	-	-
All employees:											
Total.....do....	8,572	10	41	126	636	1,429	2,856	3,474	(D)	-	-
Payroll.....\$1,000..	53,367	64	257	700	3,702	8,559	17,656	22,429	(D)	-	-
Value added, adjusted.....do....	129,139	192	622	1,685	8,862	22,380	45,074	50,324	(D)	-	-
Value of shipments.....do....	250,195	423	1,119	3,312	17,496	43,388	83,990	100,467	(D)	-	-
Capital expenditures, new...do....	9,346	4101	(D)	32	382	1,661	4,367	2,803	(D)	-	-

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963—Continued

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
	INDUSTRY 3299.—NONMETALLIC PRODUCTS, N.E.C.										
Establishments.....number..	320	152	60	52	32	12	8	4	-	-	-
All employees:											
Total.....do....	5,471	203	401	649	994	821	1,125	1,278	-	-	-
Payroll.....\$1,000..	27,094	893	1,700	2,980	5,161	3,708	4,947	7,705	-	-	-
Value added, adjusted.....do....	53,289	1,868	3,225	6,325	10,068	6,761	8,865	16,172	-	-	-
Value of shipments.....do....	96,188	3,158	5,675	10,812	17,213	12,604	17,331	29,395	-	-	-
Capital expenditures, new...do....	2,187	63	90	243	245	214	408	924	-	-	-

- Represents zero.  
(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. n.e.c. Not elsewhere classified.  
<sup>1</sup>Includes capital expenditures between \$200 thousand and \$500 thousand for plants under construction but not in operation.  
<sup>2</sup>Includes capital expenditures between \$1 million and \$2 million for plants under construction but not in operation.  
<sup>3</sup>Includes capital expenditures between \$2 million and \$5 million for plants under construction but not in operation.  
<sup>4</sup>Includes capital expenditures between \$50 million and \$100 million for plants under construction but not in operation.

TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
						Col. B Col. E (percent)				Col. B Col. F (percent)
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)		(\$1,000)	(\$1,000)	(\$1,000)	(percent)
		A	B	C	D	E	F	G	H	I
3291	Abrasive products.....1963..	704,212	541,261	(D)	(D)	<sup>1</sup> 70	572,246	541,261	30,985	95
	.....1958..	490,752	383,648	79,789	27,315	83	399,802	383,648	16,154	96
3292	Asbestos products.....1963..	509,236	458,514	24,370	26,352	95	506,119	458,514	47,605	91
	.....1958..	453,488	385,425	46,058	22,005	89	419,667	385,425	34,242	92
3293	Gaskets and insulations.....1963..	279,226	205,635	48,015	25,576	81	262,195	205,635	56,560	78
	.....1958..	188,684	147,950	22,822	17,912	87	214,136	147,950	66,186	69
3295	Minerals, ground or treated <sup>2</sup> .....1963..	204,393	175,399	10,850	18,144	94	203,061	175,399	27,662	86
	.....1958..	219,086	185,734	7,626	25,726	96	218,053	185,734	32,319	85
3296	Mineral wool <sup>3</sup> .....1963..	391,873	342,420	36,564	12,889	90	355,989	342,420	13,569	96
	.....1958..	240,922	225,322	11,963	3,637	95	236,436	225,322	11,114	95
3297	Nonclay refractories.....1963..	250,195	225,524	15,349	9,322	94	256,832	225,524	31,303	88
	.....1958..	177,643	165,528	7,983	4,132	95	185,241	165,528	19,713	89
3299	Nonmetallic products, n.e.c.....1963..	96,188	79,677	12,946	3,565	86	83,008	79,677	3,331	96
	.....1958..	58,947	45,815	8,332	4,800	85	53,717	45,815	7,902	85

Note: See Introduction for an explanation of terms used.  
Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.  
<sup>1</sup>This is a minimum percentage. The exact percentage is withheld to avoid disclosing figures for individual companies.  
<sup>2</sup>See footnotes 3 and 4, table 1.  
<sup>3</sup>See footnote 4, table 1.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Abrasive products (SIC 3291)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Asbestos products (SIC 3292)	Other industries
<b>ABRASIVE PRODUCTS INDUSTRY</b>					<b>ASBESTOS PRODUCTS INDUSTRY--Con.</b>				
	Total shipments and receipts of the industry.....	(X)	704,212	(X)		Miscellaneous receipts.....	(X)	26,352	(X)
	Primary products.....	572,246	541,261	30,985		Resales.....	(X)	25,966	(X)
						Other miscellaneous receipts.....	(X)	386	(X)
32911	Nonmetallic artificial sized grains, powders, and flour abrasives.....	74,322	62,266	12,056	32922	Listing of other industries with over \$2 million shipments of each primary product class:			
32912	Nonmetallic bonded abrasive products, including diamond.....	247,275	234,390	12,885	3079	Plastics products, n.e.c....	(X)	(X)	(over 2)
32913	Nonmetallic coated abrasive products.....	176,273	174,691	1,582	3293	Gaskets and insulations.....	(X)	(X)	(over 2)
32914	Metal abrasives.....	63,242	69,914	4,462	32924	2952 Asphalt felts and coatings..		(X)	(over 2)
32910	Abrasive products, n.s.k.....	11,134			32925	3982 Hard surface floor coverings	(X)	(X)	(over 2)
	Secondary products.....	(X)	(over 2)	(X)	32926	3069 Rubber products, n.e.c.....	(X)	(X)	(over 2)
26414	Pressure sensitive tape.....	(X)	(over 2)	(X)	32927	3982 Hard surface floor coverings	(X)	(X)	(over 2)
28415	Synthetic organic detergents, packaged.....	(X)	(over 2)	(X)		2952 Asphalt felts and coatings..	(X)	(X)	15,112
32970	Nonclay refractories, except dead-burned magnesite.....	(X)	(over 2)	(X)		3293 Gaskets and insulations.....	(X)	(X)	3,990
33134	Other ferroalloys produced in electric furnaces.....	(X)	(over 2)	(X)	<b>GASKETS AND INSULATIONS INDUSTRY</b>				
35414	Grinding and polishing machines..	(X)	(over 2)	(X)		Total shipments and receipts of the industry.....	(X)	279,226	(X)
35451	Small cutting tools for machine tools and metalworking machinery	(X)	(over 2)	(X)		Primary products.....	262,195	205,635	56,560
35790	Addressing, dictating, duplicating, and office machines, n.e.c.	(X)	(over 2)	(X)	32932	Gaskets, all types.....	199,729	159,988	39,741
	Miscellaneous receipts.....	(X)	(over 2)	(X)	32933	Packing, except leather, rubber and metal, and asbestos insulations.....	51,178	34,359	16,819
	Resales.....	(X)	(over 2)	(X)	32930	Gaskets and insulations, n.s.k....	11,288	11,288	-
	Other miscellaneous receipts.....	(X)	(over 2)	(X)		Secondary products.....	(X)	48,015	(X)
	Listing of other industries with over \$2 million shipments of each primary product class:				24994	Cork products.....	(X)	(2-5)	(X)
32911	3545 Machine tool accessories	(X)	(X)	(over 2)	30695	Mechanical rubber goods, n.e.c....	(X)	12,480	(X)
32912	3541 Metal-cutting machine tools	(X)	(X)	(5-10)	30792	Foam plastics products.....	(X)	3,974	(X)
32914	3559 Special industry machinery, n.e.c.....	(X)	(X)	(over 2)	32922	Asbestos friction materials.....	(X)	(over 2)	(X)
					32927	Asbestos textiles and other asbestos and asbestos cement products.....	(X)	3,990	(X)
<b>ASBESTOS PRODUCTS INDUSTRY</b>					32962	Mineral wool for industrial and equipment insulation.....	(X)	(over 2)	(X)
	Total shipments and receipts of the industry.....	(X)	509,236	(X)	35990	Carburetors, pistons and other machine shop products.....	(X)	(5-10)	(X)
	Primary products.....	506,119	458,514	47,605	37291	Other aircraft parts and auxiliary equipment.....	(X)	(over 2)	(X)
32922	Asbestos friction materials.....	117,653	110,204	7,449		Miscellaneous receipts.....	(X)	25,576	(X)
32924	Asbestos - cement shingles and clapboard.....	34,703	(20-50)	(over 2)		Resales.....	(X)	24,615	(X)
32925	Asphalt floor tile.....	59,245	(50-100)	(5-10)		Other miscellaneous receipts.....	(X)	961	(X)
32926	Vinyl asbestos floor tile.....	131,145	(100-200)	(10-20)		Listing of other industries with over \$2 million shipments of each primary product class:			
32927	Asbestos textiles and other asbestos and asbestos cement products.....	162,231	142,794	19,437	2899	Chemical preparations, n.e.c....	(X)	(X)	(over 2)
32920	Asbestos products, n.s.k.....	1,142	(under 2)	(under 2)	3011	Tires and inner tubes.....	(X)	(X)	(over 2)
	Secondary products.....	(X)	24,370	(X)	3069	Rubber products, n.e.c.....	(X)	(X)	22,846
28911	Glues, adhesives, and sizes.....	(X)	2,090	(X)	3292	Asbestos products.....	(X)	(X)	(2-5)
30791	Unsupported plastics film, sheets, sheeting, rods, tubes and other stock shapes, from purchased resin material.....	(X)	(over 2)	(X)	3461	Metal stampings.....	(X)	(X)	(2-5)
32932	Gaskets, all types.....	(X)	(2-4)	(X)	3069	Rubber products, n.e.c.....	(X)	(X)	(over 2)
32933	Packing, except leather, rubber and metal, and asbestos insulations.....	(X)	(5-10)	(X)	3292	Asbestos products.....	(X)	(X)	(5-10)
					3599	Miscellaneous machinery.....	(X)	(X)	(2-5)

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Minerals, ground or treated (SIC 3295)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Mineral wool (SIC 3296)	Other industries
	MINERALS, GROUND OR TREATED INDUSTRY					MINERAL WOOL INDUSTRY--Continued			
	Total shipments and receipts of the industry.....	(X)	204,393	(X)		Listing of other industries with over \$2 million shipments of each primary product class:			
32950	Minerals and earths, ground or otherwise treated.....	203,061	175,399	27,662	32962	2661 Building paper and board mills.....	(X)	(X)	(over 2)
	Secondary products.....	(X)	10,850	(X)		3255 Clay refractories.....	(X)	(X)	(over 2)
	Miscellaneous receipts.....	(X)	18,144	(X)		3293 Gaskets and insulations.....	(X)	(X)	(over 2)
	Resales.....	(X)	13,955	(X)		3299 Nonmetallic minerals,n.e.c..	(X)	(X)	(over 2)
	Contract work.....	(X)	3,415	(X)			All industries	Nonclay refractories (SIC 3297)	Other industries
	Other miscellaneous receipts.....	(X)	774	(X)					
	Listing of other industries with over \$2 million shipments of the primary product class:					NONCLAY REFRACTORIES INDUSTRY			
32950	3255 Clay refractories.....	(X)	(X)	2,333	32970	Total shipments and receipts of the industry.....	(X)	250,195	(X)
	3273 Ready mixed concrete.....	(X)	(X)	4,104		Nonclay refractories, except dead-burned magnesia.....	256,832	225,524	31,308
	3275 Gypsum products.....	(X)	(X)	5,717		Secondary products.....	(X)	15,349	(X)
	3297 Nonclay refractories.....	(X)	(X)	2,603					
		All industries	Mineral wool (SIC 3296)	Other industries	32550	Clay refractories.....	(X)	7,873	(X)
					32950	Minerals and earths, ground or otherwise treated.....	(X)	2,603	(X)
						Miscellaneous receipts.....	(X)	9,322	(X)
	MINERAL WOOL INDUSTRY					Resales.....	(X)	7,744	(X)
	Total shipments and receipts of the industry.....	(X)	391,873	(X)		Other miscellaneous receipts.....	(X)	1,578	(X)
	Primary products.....	355,989	342,420	13,569	32970	Listing of other industries with over \$2 million shipments of the primary product class:			
32961	Mineral wool for structural insulation.....	107,678	106,578	1,100		3255 Clay refractories.....	(X)	(X)	8,553
32962	Mineral wool for industrial insulation.....	240,798	228,329	12,469		3274 Lime.....	(X)	(X)	(5-10)
32960	Mineral wool, n.s.k.....	7,513	7,513	-		3291 Abrasive products.....	(X)	(X)	(5-10)
	Secondary products.....	(X)	36,564	(X)		3624 Carbon and graphite products	(X)	(X)	(over 2)
							All industries	Nonmetallic products, n.e.c. (SIC 3299)	Other industries
22930	Paddings, upholstery filling, batting and wadding, excluding foam rubber and vinyl.....	(X)	(over 2)	(X)	32990	NONMETALLIC PRODUCTS, N.E.C., INDUSTRY			
30795	Industrial plastics products.....	(X)	(10-20)	(X)		Total shipments and receipts of the industry.....	(X)	96,188	(X)
32293	Glass fiber.....	(X)	4,102	(X)		Other nonmetallic mineral products, n.e.c.....	83,008	79,677	3,331
32294	Other pressed and blown glassware	(X)	(over 2)	(X)		Secondary products.....	(X)	12,946	(X)
35690	General industrial machinery, n.e.c.....	(X)	(5-10)	(X)	28516	Industrial product finishes, except lacquers.....	(X)	(over 2)	(X)
	Miscellaneous receipts.....	(X)	12,889	(X)	30793	Laminated sheets, rods, and tubes	(X)	(over 2)	(X)
	Resales.....	(X)	12,551	(X)	32962	Mineral wool for industrial and equipment insulation.....	(X)	(over 2)	(X)
	Other miscellaneous receipts.....	(X)	338	(X)		Miscellaneous receipts.....	(X)	3,565	(X)
						Resales.....	(X)	3,189	(X)
						Other miscellaneous receipts.....	(X)	376	(X)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Unit of measure	1963			1958		
			Production for all purposes (quantity)	Total shipments including interplant transfers		Production for all purposes (quantity)	Total shipments including interplant transfers	
				Quantity	Value (\$1,000)		Quantity	Value (\$1,000)
3291- --	ABRASIVE PRODUCTS, TOTAL.....	.....	(X)	(X)	1572,246	(X)	(X)	1399,802
32911 --	Nonmetallic artificial (synthetic) sized grains, powders, and flour abrasives, total.....	.....	(X)	(X)	174,322	(X)	(X)	138,822
32911 17	Sized grains, powders, and flour:							
32911 19	Silicon carbide.....	Short tons..	99,058	92,240	23,420	(NA)	54,040	15,457
32911 29	Aluminum oxide.....	...do.....	148,550	132,469	37,599	(NA)	71,723	22,837
	Other artificial sized grains, powders, and flour (including combinations of silicon carbide and aluminum oxide, boron carbide, synthetic diamond, etc.).....	...do.....	(X)	(X)	112,948	(X)	3,463	1528
32911 00	Nonmetallic artificial sized grains, powders, and flour abrasives, n.s.k.....	.....	(X)	(X)	355	(X)	(X)	(X)
32912 --	Nonmetallic (including diamond) bonded abrasive products and abrasive compounds, total.....	.....	(X)	(X)	247,275	(X)	(X)	164,406
	Artificial and natural bonded abrasives, including grinding wheels, sticks, stones, hones, balls, tumbling media, brick (excluding refractory bricks, floor and stair brick, and similar by-products):							
	Silicon carbide:							
32912 32	Vitrified bond.....	.....	(X)	(X)	24,282	(X)	(X)	(NA)
32912 34	Resinoid and shellac bond.....	.....	(X)	(X)	19,837	(X)	(X)	(NA)
32912 36	Rubber bond.....	.....	(X)	(X)	3,050	(X)	(X)	(NA)
	Aluminum oxide:							
32912 41	Vitrified bond.....	.....	(X)	(X)	60,823	(X)	(X)	(NA)
32912 42	Resinoid and shellac bond.....	.....	(X)	(X)	54,041	(X)	(X)	(NA)
32912 43	Rubber bond.....	.....	(X)	(X)	9,727	(X)	(X)	(NA)
32912 61	Diamond wheels.....	Carat.....	(X)	7,423,109	41,171	(X)	(X)	23,792
32912 69	Other bonded abrasives.....	.....	(X)	(X)	8,427	(X)	(X)	(NA)
32912 45	Nonmetallic natural sized grains, powders, and flour.....	.....	(NA)	(NA)	4,405	(NA)	(NA)	(NA)
32912 72	Crude lump forms.....	.....	(NA)	(NA)		(NA)	(NA)	(NA)
32912 79	Other artificial and natural nonmetallic abrasives and abrasive products, except coated abrasives (including grinding, lapping, buffing compounds, etc.).....	.....	(X)	(X)	16,080	(X)	(X)	(NA)
32912 00	Nonmetallic bonded abrasive products and abrasive compounds, n.s.k.....	.....	(X)	(X)	5,432	(X)	(X)	(X)
32913 --	Nonmetallic coated abrasive products and buffing wheels, polishing wheels, and laps, total.....	.....	(X)	(X)	176,273	(X)	(X)	127,387
	Coated or impregnated with any natural or artificial abrasive material:							
	Cloth:							
32913 21	Glue bond.....	Reams.....	(X)	435,002	34,986	(X)	589,481	51,033
32913 23	Resin and waterproof bond.....	...do.....	(X)	380,604	50,968			
	Paper:							
32913 25	Glue bond.....	...do.....	(X)	1,232,832	29,347	(X)	1,351,222	39,050
32913 27	Resin and waterproof bond.....	...do.....	(X)	540,527	19,335			
	Other (including paper-cloth combinations, vulcanized fiber-cloth combinations, vulcanized fibers, etc.):							
32913 35	Glue bond.....	...do.....	(X)	19,303	2,217	(X)	(X)	16,808
32913 37	Resin and waterproof bond.....	...do.....	(X)	129,069	16,033			
32913 71	Buffing and polishing wheels and laps made of cloth, leather, felt, and other materials (containing no abrasive grains, powders, or flour).....	.....	(X)	(X)	21,380	(X)	(X)	20,496
32913 00	Nonmetallic coated abrasive products and buffing wheels, polishing wheels and laps, n.s.k.....	.....	(X)	(X)	2,007	(X)	(X)	(X)
32914 --	Metal abrasives, including scouring pads, total.....	.....	(X)	(X)	63,242	(X)	(X)	54,697
32914 11	Steel and iron grit, shot, and sand.....	Short tons..	(X)	126,562	17,208	(X)	112,948	16,383
32914 31	Steel wool.....	...do.....	(X)	8,380	6,971	(X)	7,361	5,997

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	1963			1958			
			Production for all purposes (quantity)	Total shipments including interplant transfers		Production for all purposes (quantity)	Total shipments including interplant transfers		
				Quantity	Value (\$1,000)		Quantity	Value (\$1,000)	
3291- --	ABRASIVE PRODUCTS--Continued								
32914 --	Metal abrasives, including scouring pads--Continued								
32914 53	Metal pads with soaps and other cleanser impregnated or in package.....	Gross.....	(X)	(NA)	38,697	(X)	11,604,022	26,918	
32914 98	Other metal abrasives and scouring pads.....	.....	(X)	(X)		(X)	(NA)	5,399	
32914 00	Metal abrasives, including scouring pads, n.s.k..	.....	(X)	(X)		(X)	(X)	(X)	
32910 00	Abrasive products, n.s.k.....	.....	(X)	(X)	11,134	(X)	(X)	14,490	
3292- --	ASBESTOS PRODUCTS, TOTAL.....	.....	(X)	(X)	506,119	(X)	(X)	419,667	
32922 --	Asbestos friction materials.....	.....	(X)	(X)	117,653	(X)	(X)	89,844	
	Brake linings:								
32922 11	Woven (containing asbestos yarn, tape, or cloth)	1,000 lin.ft.	(X)	10,475	6,412	11,038	10,402	7,791	
32922 15	Molded, including all nonwoven types.....	Cubic feet...	(X)	963,086	81,100	(NA)	(NA)	58,909	
	Clutch facing:								
32922 51	Woven (containing asbestos yarn, tape, or cloth)	1,000 pieces.	(X)	19,015	12,134	14,833	14,830	10,159	
32922 55	Molded, including all nonwoven tapes.....	...do.....	(X)	57,085	17,531	(NA)	(NA)	12,985	
32922 00	Asbestos friction materials, n.s.k.....	.....	(X)	(X)	476	(X)	(X)	(X)	
32924 --	Asbestos-cement shingles and clapboard, total.....	.....	(X)	(X)	34,703	(X)	(X)	49,152	
32924 11	Siding shingles and clapboard, including accessories.....	1,000 squares	(X)	2,869	31,938	4,138	4,047	44,586	
32924 51	Roofing shingles.....	...do.....	(X)	195	2,765	333	325	4,566	
32925 11	Asphalt floor tile, total.....	1,000 sq.yds.	74,286	74,331	59,245	109,026	109,494	77,348	
32926 11	Vinyl asbestos floor tile, total.....	...do.....	106,109	106,653	131,145	58,817	57,662	66,591	
32927 --	Asbestos textiles and other asbestos and asbestos-cement products, total.....	.....	(X)	(X)	162,231	(X)	(X)	131,782	
32927 11	Asbestos textiles yarn, cord, and thread.....	1,000 lbs....	19,661	10,053	7,200	8,206	6,884	6,017	
32927 21	Cloth.....	...do.....	9,422	8,144	9,142	7,296	6,663	6,898	
32927 31	Other asbestos textiles (includes roving, lap, wick, rope, tape, carded fibers, etc.).....	...do.....	10,257	9,609	9,707	10,500	9,769	10,317	
	Asbestos-cement flat and corrugated sheets and wallboard:								
32927 41	Flat sheets and wallboard, all thickness converted to 1/4" basis.....	1,000 sq.ft..	}	(X)	(NA)	113,532	86,437	84,720	15,916
32927 51	Corrugated sheets.....	...do.....					20,483	19,869	4,291
32927 71	Other asbestos and asbestos-cement products: Pipe, conduits and ducts, including pressure pipe.....	Short tons...					327,210	366,305	69,750
	Asbestos felts:								
32927 81	Roofing, asphalt or tar saturated.....	...do.....	(X)	52,284	8,758	21,929	22,145	4,949	
32927 85	Other.....	...do.....	(X)	(S)	6,579	25,338	25,311	8,264	
32927 98	Other asbestos and asbestos-cement products, including millboard, n.e.c.....	.....	(X)	(X)	6,215	(X)	(X)	5,380	
32927 00	Asbestos textiles and other asbestos and asbestos-cement products, n.s.k.....	.....	(X)	(X)	1,098	(X)	(X)	(X)	
32920 00	Asbestos products, n.s.k.....	.....	(X)	(X)	1,142	(X)	(X)	4,950	
			1963		1958				
			total shipments including interplant transfers		Production for all purposes (quantity)	Total shipments including interplant transfers			
			Quantity	Value (\$1,000)		Quantity	Value (\$1,000)		
3293- --	STEAM AND OTHER PACKING AND PIPE AND BOILER COVERING, TOTAL.....	.....	(X)	262,195	(X)	(X)		214,136	
32932 --	Gaskets, all types, total.....	.....	(X)	199,729	(X)	(X)		143,271	
32932 11	Gaskets (for sealing nonmoving parts): Asbestos, asbestos-metallic, and asbestos-rubber.....	.....	(X)	37,757	(X)	(X)		25,938	

See footnotes at end of table.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	1963 total shipments including interplant transfers		1958		
			Quantity	Value (\$1,000)	Production for all purposes (quantity)	Total shipments including interplant transfers	
						Quantity	Value (\$1,000)
3293- --	STEAM AND OTHER PACKING AND PIPE AND BOILER COVERING--Continued						
32932	Gaskets, all types--Continued						
	Gaskets (for sealing nonmoving parts):--Continued						
32932 21	Cork.....		(X)	16,391	(X)	(X)	11,631
32932 31	Rubber (except asbestos-rubber).....		(X)	68,632	(X)	(X)	46,091
32932 43	Paper and felt base.....		(X)	14,390	(X)	(X)	8,884
32932 51	Metal.....		(X)	27,901	(X)	(X)	22,445
32932 98	Other gaskets, including leather.....		(X)	25,376	(X)	(X)	11,814
32932 00	Gaskets, all types, n.s.k.....		(X)	9,282	(X)	(X)	16,468
32933 --	Packing (except leather, rubber, and metal) and asbestos insulations, total.....		(X)	51,178	(X)	(X)	62,398
32933 11	Asbestos compressed sheet:						
	Quantity reported.....	1,000 lbs....	11,282	3,125	7,941	7,962	2,908
	Quantity not reported.....		(X)	(X)	(X)	(X)	459
32933 13	Packing (for sealing moving parts):						
	Asbestos, asbestos-metallic and asbestos-rubber	1,000 lbs....	10,895	17,412	9,646	9,071	13,207
32933 19	Other packing.....		(X)	5,593	(NA)	(NA)	7,749
	Insulation materials containing asbestos:						
	Pipe insulation:						
32933 31	Cellular and laminated.....	1,000 lin.ft.	(S)	2,678	(X)	(X)	5,303
32933 33	85 percent magnesia.....	...do.....	3,430	1,381	(X)	(X)	7,630
32933 37	Diatomaceous silica, calcium silicate, expanded silica, and asbestos fiber.....	...do.....	10,571	6,682	(X)	(X)	7,080
32933 39	Other pipe insulation.....	...do.....	(S)	2,186			
32933 45	Block insulation (including sheet and lagging):						
	Diatomaceous silica, calcium silicate, expanded silica and asbestos fiber.....	1,000 bd.ft..	11,937	2,954	21,264	21,207	5,209
32933 49	Other block insulation including cellular and laminated.....	...do.....	9,520	2,338			
32933 43	85 percent magnesia.....	...do.....			15,160	15,175	4,437
32933 51	All other asbestos insulation.....		(X)	3,876	(X)	(X)	4,917
32933 00	Packing and asbestos insulation, n.s.k.....		(X)	2,953	(X)	(X)	3,499
32930 00	Steam and other packing and pipe and boiler coverings, n.s.k.....		(X)	11,288	(X)	(X)	8,467
Total shipments including interplant transfers							
1963				1958			
			Quantity	Value (\$1,000)		Quantity	Value (\$1,000)
3295- --	MINERALS AND EARTHS, GROUND OR OTHERWISE TREATED, TOTAL.....		(X)	203,061		(X)	218,053
32950 11	Lightweight aggregate (such as diatomaceous earth, expanded clay, expanded slag, cinders, perlite, haydite, pumice, but excluding vermiculite):						
	Quantity reported.....	Short tons...	5,758,913	18,359	(X)	(X)	21,899
	Quantity not reported.....		(X)	3,682			
32950 13	Exfoliated vermiculite: <sup>2</sup>						
	Aggregate.....	1,000 cu.ft..	19,325	5,200	(NA)	(NA)	10,624
32950 15	Other (such as loose fill insulation, acoustical)	...do.....	26 387	8,477			
32950 21	Dead-burned magnesia or magnesite.....		(X)	327,913	(X)	(X)	318,706
32950 31	Crushed slag:						
	Quantity reported.....	Short tons...	15,912,379	27,987	16,226,882	(X)	27,973
	Quantity not reported.....		(X)	4,319			
32950 61	Crushed and ground uncalcined gypsum (including gypsite and anhydrite).....	Short tons...	915,080	6,515	1,871,621	37,248	9,138
32950 81	Natural graphite, ground, refined, or blended.....	...do.....	32,599	6,219			

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers					
			1963		1958			
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)		
3295- --	MINERALS AND EARTHS, GROUND OR OTHERWISE TREATED--Continued							
32950 84	Ground crude fire clay, high alumina clay, silica fire clay.....	Short tons....	(X)	4,356	}	(NA)		
32950 87	Ground barite.....	Short tons....	547,167	14,800				
32950 85	Other beneficiated clays and shales.....	Short tons....	(S)	59,704				
32950 98	Other minerals and earths, ground or otherwise treated (including feldspar, talc, soapstone, pulverized limestone mica, pyrophyllite and silica).....	Short tons....						
32950 83	Roofing granules <sup>3</sup> .....	Short tons....	(X)	15,530	(X)	15,588		
32950 00	Minerals and earths, ground or otherwise treated, n.s.k.....	Short tons....	(X)	355,989	(X)	<sup>2</sup> 236,436		
3296- --	MINERAL WOOL, TOTAL.....	Short tons....	(X)	107,678	(X)	<sup>2</sup> 71,839		
32961 --	Mineral wool for structural insulation from rock, slag, or glass (for insulating homes, commercial and industrial buildings for human comfort), total.....	Short tons....	(X)	241,309	19,061	289,541		
32961 11	Loose wool (shipped as such) and granulated wool.....	Short tons....	241,309	19,061	289,541	14,854		
32961 23	Building batts, blankets, and rolls:							
32961 27	4.5 inches and more.....	1,000 sq. ft..	127,698	6,108	}	642,474		
32961 27	3 to 4.4 inches thick.....	1,000 sq. ft..	1,028,429	41,708				
32961 33	2 to 2.9 inches thick.....	1,000 sq. ft..	581,824	21,824				
32961 37	Less than 2 inches thick.....	1,000 sq. ft..	311,601	11,693				
32961 98	Other mineral wool for structural insulation.....	Short tons....	(X)	5,831	(X)	( <sup>4</sup> )		
32961 00	Mineral wool for structural insulation, n.s.k.....	Short tons....	(X)	1,453	(X)	1,052		
32962 --	Mineral wool for industrial and equipment insulation from rock, slag, or glass, total.....	Short tons....	(X)	240,798	(X)	<sup>2</sup> 141,966		
32962 33	Blankets (flexible):							
32962 35	Industrial insulation:							
32962 35	Plain.....	1,000 bd. ft..	(S)	38,500	387,148	17,585		
32962 35	Faced, coated, and metal-meshed.....	1,000 bd. ft..	(S)	55,448	194,937	14,007		
32962 37	Equipment insulation.....	1,000 bd. ft..			433,520	21,261		
32962 51	Blocks and boards.....	1,000 lin. ft..	583,304	43,670	248,202	30,251		
32962 61	Pipe insulation.....	1,000 lin. ft..	94,176	29,728	76,805	22,960		
32962 71	Acoustical pads and boards.....	1,000 sq. ft..	355,719	53,476	145,892	30,631		
32962 98	Other mineral wool for industrial and equipment insulation such as loose wool (shipped as such) granulated wool, felts, insulating and finishing cements, etc.....	Short tons....	(X)	7,689	(X)	5,271		
32962 00	Mineral wool for industrial and equipment insulation, n.s.k.....	Short tons....	(X)	12,287	(X)	( <sup>4</sup> )		
32960 98	Other mineral wool insulating products, n.e.c.....	Short tons....	(X)	( <sup>5</sup> )	(X)	16,940		
32960 00	Mineral wool, n.s.k.....	Short tons....	(X)	7,513	(X)	5,691		
3297- --	NONCLAY REFRACTORIES, TOTAL AS REPORTED IN THE 1963 CENSUS OF MANUFACTURES.....	Short tons....	(X)	256,832	(X)	185,241		
3297- --	NONCLAY REFRACTORIES, TOTAL AS REPORTED ON CENSUS QUARTERLY FORM MB2C.....	Short tons....	(X)	251,809	(X)	186,905		
32970 12	Silica brick and shapes.....	1,000 9"equiv.	119,290	22,499	202,685	42,190		
32970 15	Magnesite and magnesite-chrome (magnesite predominating) brick and shapes (excluding molten cast) <sup>6 7</sup> .....	1,000 9"equiv.	79,456	69,952	39,673	30,692		
32970 21	Chrome and chrome-magnesite (chrome predominating) brick and shapes (excluding molten cast) <sup>6 7</sup> .....	1,000 9"equiv.	35,292	27,906	42,582	30,296		
32970 52	Mullite brick and shapes made predominantly of kyanite, sillimanite, andalusite on synthetic mullite (excluding molten cast) <sup>6 7</sup> .....	1,000 9"equiv.	5,929	7,058	4,047	4,764		
32970 53	Extra high alumina brick and shapes made predominantly of fused bauxite, fused or dense-sintered alumina (excluding molten cast) <sup>6 7 8</sup> .....	1,000 9"equiv.	3,173	5,661	2,001	4,099		
32970 54	Silicon carbide brick and shapes made substantially of silicon carbide.....	1,000 9"equiv.	2,954	9,552	3,802	8,285		
32970 55	Zircon and zirconia brick and shapes made predominantly of either of these materials.....	1,000 9"equiv.	953	3,867	547	2,010		
32970 56	Forsterite, pyrophyllite, molten cast, and other nonclay brick and shapes <sup>7</sup> .....	Short tons....	(NA)	30,314	(X)	14,586		
32970 63	Nonclay refractory bonding mortars, air-setting (wet and dry types).....	Short tons....	204,089	17,897	97,800	9,615		
32970 65	Nonclay refractory bonding, except air-setting types.....	Short tons....	19,910	1,758	19,261	1,521		
32970 91	Nonclay refractory castables (hydraulic setting).....	Short tons....	13,255	2,060	5,947	730		
32970 71	Nonclay plastic refractories and ramming mixes (wet and dry types).....	Short tons....	182,695	21,979	188,137	20,578		
32970 33	Graphite crucibles, retorts, stopper heads, and other shaped refractories containing natural graphite.....	Short tons....	13,024	10,077	}	13,537		
32970 35	Carbon refractories; brick, blocks, and shapes, excluding those containing natural graphite.....	Short tons....	233,140	21,229				
32970 92	Nonclay gunning mixes.....	Short tons....						
32970 98	Other nonclay refractory materials, sold in lump or ground form <sup>9</sup> .....	Short tons....						
32970 98	Other nonclay refractory materials, sold in lump or ground form <sup>9</sup> .....	Short tons....			147,200	9,420		

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Value of shipments including interplant transfers (\$1,000)	
		1963	1958
3299- --	NONMETALLIC MINERAL PRODUCTS, N.E.C.....	83,008	53,717
32990 53	Built-up sheet mica products.....	14,061	} 22,459
32990 55	Other sheet mica products.....	14,046	
32990 61	Sand-lime brick, block, and tile.....	4,864	
32990 81	Statuary and arts goods (factory production).....	13,879	9,496
32990 98	Other nonmetallic mineral products, n.e.c., including stucco, sapphire boule, magnesite floor composition, etc.....	30,252	6,927
32990 00	Nonmetallic mineral products, n.e.c., n.s.k.....	5,906	3,848

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(S) Does not meet publication standards.

<sup>1</sup>Not directly comparable. In 1958 synthetic diamonds were classified in industry 3913, Lapidary Work. The amount is withheld to avoid disclosing figures for individual companies.

<sup>2</sup>See footnote 4, table 1.

<sup>3</sup>See footnote 3, table 1.

<sup>4</sup>Included in figure for code 3296098 for 1958.

<sup>5</sup>Included in figures for codes 3296128 and 3296298 for 1963.

<sup>6</sup>Molten cast brick and shapes are included with "Forsterite, pyrophyllite, molten cast and other nonclay brick and shapes."

<sup>7</sup>Molten cast refractories are made by fusing refractory oxides as in an electric furnace and pouring the molten material into molds to form finished shapes.

<sup>8</sup>Fused as applied to bauxite and alumina means complete melting, as in an electric furnace; the product is crushed and graded for use in the refractory. Dense-sintered alumina refers to heat treatment (short of melting) to render it relatively volume-stable for use in a refractory.

<sup>9</sup>Represents shipments for direct use as finished refractory products by establishments classified in "manufacturing" industries, and excludes shipments to refractory producers for processing in the manufacture of brick and other refractories.

TABLE 6B. **Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)		Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value			Production	Unit value
329--	Nonmetallic mineral products.....1963..	( <sup>1</sup> )	( <sup>1</sup> )	3293-	Gaskets and insulations.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	1958..	( <sup>1</sup> )	( <sup>1</sup> )		1958..	( <sup>1</sup> )	( <sup>1</sup> )
3291-	Abrasive products.....1963..	( <sup>1</sup> )	( <sup>1</sup> )	32933	Packing, except leather, rubber, and metal and asbestos insulations.....1963..	78	111
	1958..	( <sup>1</sup> )	( <sup>1</sup> )		1958..	93	108
32911	Nonmetallic artificial (synthetic) sized grains, powders, and flour abrasives.....1963..	( <sup>1</sup> )	111	3295-	Minerals, ground or treated.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	1958..	( <sup>1</sup> )	125		1958..	( <sup>1</sup> )	( <sup>1</sup> )
32913	Nonmetallic coated abrasive products and buffing wheels, polishing wheels, and laps.....1963..	131	120	3296-	Mineral wool.....1963..	283	76
	1958..	104	109		1958..	168	86
3292-	Asbestos products.....1963..	136	112	32961	Mineral wool for structural insulation from rock, slag or glass (for insulating homes, commercial and industrial buildings for human comfort).....1963..	145	110
	1958..	112	112		1958..	137	90
32922	Asbestos friction materials.....1963..	148	107	32962	Mineral wool for industrial and equipment insulation from rock, slag or glass.....1963..	422	60
	1958..	113	108		1958..	189	83
32924	Asbestos-cement shingles and clapboard.....1963..	49	129	3297-	Nonclay refractories.....1963..	154	130
	1958..	70	127		1958..	120	122
32925	Asphalt floor tile.....1963..	101	118	3299-	Nonmetallic minerals.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	1958..	148	104		1958..	( <sup>1</sup> )	( <sup>1</sup> )
32926	Vinyl asbestos floor tile.....1963..	281	111				
	1958..	152	104				
32927	Asbestos textiles and other asbestos and asbestos-cement products.....1963..	143	102				
	1958..	105	114				

<sup>1</sup>Not shown because comparable quantity data were not obtained for a significant portion of these products.

TABLE 6C. Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3291-	Abrasive products.....\$1,000..	572,246	555,624	492,881	511,609	510,419	399,802	355,849	244,713
32911	Nonmetallic artificial sized grains, powders, and flour abrasives.....do....	274,322	61,821	52,590	50,736	53,387	38,822	32,652	19,357
32912	Nonmetallic bonded abrasive products, inc. diamond abrasives.....do....	247,275	244,598	210,757	220,260	228,234	164,406	158,067	108,359
32913	Nonmetallic coated abrasive products.....do....	176,273	179,054	160,287	158,795	151,649	127,387	111,893	88,719
32914	Metal abrasives.....do....	63,242	54,410	53,904	61,580	58,660	54,697	45,923	28,278
32910	Abrasive product, n.s.k.....do....	11,134	(S)	(S)	(S)	(S)	14,490	7,314	(X)
3292-	Asbestos products.....do....	506,119	475,487	463,644	473,666	488,020	419,667	323,093	198,603
32922	Asbestos friction material.....do....	117,653	112,118	101,906	104,340	111,713	89,844	73,852	58,606
32924	Asbestos—cement shingles and clapboard:								
	Quantity.....1,000 squares..	3,064	3,059	3,150	3,756	4,302	4,372	6,116	5,770
	Value.....\$1,000..	34,703	36,509	38,433	45,453	49,909	49,152	53,263	37,528
32925	Asphalt floor tiles:								
	Quantity.....1,000 sq. yds..	74,331	91,658	97,780	99,096	112,165	109,494	109,679	45,924
	Value.....\$1,000..	59,245	65,007	70,299	71,705	78,606	77,348	90,672	41,972
32926	Vinyl asbestos floor tile:								
	Quantity.....1,000 sq. yds..	106,653	93,732	82,806	82,184	76,449	57,662	(NA)	(NA)
	Value.....\$1,000..	131,145	110,651	102,582	99,784	91,600	66,591	(NA)	(NA)
32927	Asbestos textiles and other asbestos and asbestos cement products.....do....	162,231	143,350	145,302	146,645	150,989	131,782	104,205	60,497
32920	Asbestos products, n.s.k.....do....	1,142	(S)	(S)	(S)	(S)	4,950	1,101	(X)
3293-	Gaskets and insulations.....do....	262,195	253,303	247,347	245,110	246,045	214,136	184,112	128,440
32932	Gaskets, all types.....do....	199,729	191,285	186,723	177,570	180,632	143,271	112,781	78,330
32933	Packing, except leather, rubber and metal, and asbestos insulation.....do....	51,178	51,352	50,920	57,453	55,486	62,398	63,395	50,110
32930	Gaskets and insulations, n.s.k.....do....	11,288	(S)	(S)	(S)	(S)	8,467	7,936	-
32950	Minerals and earths, ground, or otherwise treated.....do....	3203,061	<sup>4</sup> (217,395)	<sup>4</sup> (233,304)	<sup>4</sup> (237,548)	<sup>4</sup> (251,591)	<sup>4</sup> 218,053	<sup>4</sup> 181,966	<sup>4</sup> 111,281
3296-	Mineral wool.....do....	355,989	<sup>4</sup> (370,450)	<sup>4</sup> (339,949)	<sup>4</sup> (301,078)	<sup>4</sup> (296,714)	<sup>4</sup> 236,436	<sup>4</sup> 160,383	<sup>4</sup> 79,094
32961	Mineral wool for structural insulation.....do....	107,678	<sup>4</sup> (121,146)	<sup>4</sup> (105,264)	<sup>4</sup> (91,698)	<sup>4</sup> (98,059)	<sup>4</sup> 71,839	<sup>4</sup> 59,437	<sup>4</sup> 44,264
32962	Mineral wool for industrial and equipment insulation.....do....	240,798	<sup>4</sup> (236,718)	<sup>4</sup> (224,435)	<sup>4</sup> (202,459)	<sup>4</sup> (195,132)	<sup>4</sup> 141,966	<sup>4</sup> 93,760	<sup>4</sup> 31,811
32960	Mineral wool, n.s.k.....do....	7,513	(S)	(S)	(S)	(S)	22,631	7,186	3,019
32970	Nonclay refractories, except dead-burned magnesite.....do....	256,832	<sup>5</sup> 221,408	<sup>5</sup> 226,118	<sup>5</sup> 226,283	<sup>5</sup> 219,140	185,241	127,621	84,181
32990	Other nonmetallic mineral products, n.e.c.....do....	83,008	(65,827)	(66,154)	(75,273)	(78,973)	(53,717)	48,056	32,254

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>See footnote 2, table 1.

<sup>2</sup>See footnote 1, table 6A.

<sup>3</sup>See footnote 3, table 1.

<sup>4</sup>Figures for 1959-1962 do not reflect the reclassification of exfoliated vermiculate from industry 3296, Mineral Wool to industry 3295, Minerals, Ground or Treated. Figures for 1947, 1954, and 1958 have been revised.

<sup>5</sup>Source: Current Industrial Reports, Series M32C(64)-5, Refractories.



**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>			1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
NONMETALLIC ARTIFICIAL SIZED GRAINS, POWDERS, AND FLOUR ABRASIVES (32911)			ASBESTOS FRICTION MATERIALS (32922)			PACKING, EXCEPT LEATHER; RUBBER AND METAL, AND ASBESTOS INSULATIONS (32933)		
United States, total...	74,322		United States, total...	117,653	89,844	United States, total...	51,178	62,398
Northeast.....	57,307		Northeast.....	71,630	53,895	Northeast.....	2,520	3,892
New York.....	38,577		New Jersey.....	18,043	16,262	Middle Atlantic.....	28,780	34,093
North Central, South, and West.....	17,015		East North Central.....	31,046	25,467	New York.....	7,273	4,694
			Indiana.....	11,007	10,850	New Jersey.....	11,300	13,917
NONMETALLIC BONDED ABRASIVE PRODUCTS, INCLUDING DIAMOND ABRASIVES (32912)	1963 <sup>1</sup>	1958	South.....	12,849	( <sup>2</sup> )	Pennsylvania.....	10,207	15,482
United States, total...	247,275	164,406	Pacific.....	2,128	2,596	North Central.....	11,156	( <sup>2</sup> )
Northeast.....	92,652	72,335	California.....	2,128	2,596	Illinois.....	8,843	13,019
Massachusetts.....	81,303	65,263	ASBESTOS TEXTILES AND OTHER ASBESTOS AND ASBESTOS CEMENT PRODUCTS (32927)			South.....	4,920	( <sup>2</sup> )
Middle Atlantic.....	69,687	44,430	United States, total...	162,231	131,782	West.....	3,802	( <sup>2</sup> )
New York.....	37,087	24,148	Northeast.....	48,614	46,842	MINERAL WOOL FOR STRUCTURAL INSULATION <sup>3</sup> (32961)		
New Jersey.....	9,322	5,695	East North Central.....	25,118	( <sup>2</sup> )	United States, total...	107,678	71,839
Pennsylvania.....	23,278	14,587	West North Central.....	7,773	7,566	Northeast.....	24,757	(D)
East North Central.....	70,847	39,278	South and West.....	80,726	( <sup>2</sup> )	New Jersey.....	24,019	(Z)
Ohio.....	23,321	10,935	GASKETS, ALL TYPES (32932)			East North Central.....	30,265	(D)
Illinois.....	22,394	9,274	United States, total...	199,729	143,271	Ohio.....	22,212	( <sup>2</sup> )
Michigan.....	23,015	15,754	Northeast.....	13,881	12,041	West North Central.....	15,615	(D)
West North Central.....	1,857	(Z)	Massachusetts.....	8,213	7,541	South.....	18,608	(D)
South.....	2,826	(Z)	Middle Atlantic.....	36,479	28,981	Alabama.....	4,821	(D)
West.....	9,406	( <sup>2</sup> )	New York.....	10,436	8,802	Texas.....	6,290	( <sup>2</sup> )
NONMETALLIC COATED ABRASIVE PRODUCTS (32913)			New Jersey.....	16,021	10,850	West.....	18,433	9,203
United States, total...	176,273	127,387	Pennsylvania.....	10,022	9,329	MINERAL WOOL FOR INDUSTRIAL AND EQUIPMENT INSULATION <sup>3</sup> (32962)		
Northeast.....	10,802	12,924	East North Central.....	104,763	80,643	United States, total...	240,798	141,966
Middle Atlantic.....	69,451	53,805	Ohio.....	14,745	11,602	Northeast.....	39,712	( <sup>2</sup> )
All other divisions.....	96,020	( <sup>2</sup> )	Indiana.....	14,120	8,077	New Jersey.....	20,753	6,019
Ohio.....	6,130	5,370	Illinois.....	55,583	41,755	Pennsylvania.....	17,461	15,360
Michigan.....	8,162	5,155	Michigan.....	17,348	17,553	East North Central.....	101,460	74,394
METAL ABRASIVES (32914)			Wisconsin.....	2,967	1,656	Indiana.....	23,886	(D)
United States, total...	63,242	54,697	West North Central.....	4,443	1,610	Illinois.....	3,883	( <sup>2</sup> )
Northeast.....	22,288	( <sup>2</sup> )	Minnesota.....	1,745	(Z)	West North Central.....	48,579	(D)
New York.....	16,805	( <sup>2</sup> )	Missouri.....	1,284	(Z)	South.....	19,927	( <sup>2</sup> )
Pennsylvania.....	4,418	(Z)	South.....	24,813	( <sup>2</sup> )	West.....	31,120	(D)
East North Central.....	40,954	34,435	Texas.....	6,379	( <sup>2</sup> )			
Ohio.....	9,418	9,554	West.....	15,350	( <sup>2</sup> )			
Michigan.....	3,570	( <sup>2</sup> )	California.....	14,739	( <sup>2</sup> )			

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Shipments of less than \$1 million reported.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 32911, Massachusetts, Pennsylvania, Indiana, Michigan, and Washington; 32912, New Hampshire, Rhode Island, Connecticut, Indiana, Missouri, Alabama, Washington, and California; 32913, Massachusetts, Connecticut, New York, Pennsylvania, Illinois, Wisconsin, Minnesota, North Carolina, Mississippi, and California; 32914, Indiana, and Illinois; 32922, Massachusetts, Connecticut, New York, Pennsylvania, Ohio, Illinois, Virginia, South Carolina, and Texas; 32927, New Hampshire, Massachusetts, New York, New Jersey, Pennsylvania, Ohio, Indiana, Illinois, Missouri, North Carolina, South Carolina, Georgia, Louisiana, Texas, and California; 32932, Connecticut, Virginia, North Carolina, Tennessee, and Alabama; 32933, Massachusetts, Connecticut, Ohio, South Carolina, and California; 32961, Indiana, Minnesota, Kansas, West Virginia, Tennessee, Colorado, Washington, and California; 32962, Ohio, Michigan, Wisconsin, Missouri, Kansas, West Virginia, Georgia, Florida, and California.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

<sup>3</sup>See footnote 4, table 1.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
	Materials and components, parts, containers, and supplies, total	.....	(X)	212,128	(X)	192,802
149901	Asbestos, crude (including fiber).....	Short tons.....	453,199	48,294	533,621	67,103
265011	Paper and paperboard containers, including folding, corrugated and set up.....	.....	(X)	4,769	(X)	5,929
324101	Portland cement.....	1,000 bbls. (376 lb. bbls.).....	2,370	8,795	(X)	116,139
209010	Vegetable oils, including crude and processed.....	1,000 lbs.....	34,233	6,032		
282137	Vinyl and vinyl copolymer resins, all forms.....	..do.....	201,598	30,956		
281012	Pigment, organic, and inorganic.....	..do.....	59,391	14,916		
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	93,959	(X)	3,631
973000	Materials, components, parts, containers, and supplies, n.s.k.....	.....	(X)	4,407		
	Materials and components, parts, containers, and supplies, total.	.....	(X)	97,292	(X)	67,482
149901	Asbestos, crude (including fiber).....	Short tons.....	31,376	4,964	22,753	3,543
265011	Paper and paperboard containers, including folding, corrugated and set up.....	.....	-	4,668	-	3,286
266122	Paper felts.....	1,000 lbs.....	(S)	1,007	(X)	60,653
970099	All other material and components, parts, containers, and supplies consumed.....	.....	-	72,801		
973000	Materials, and components, parts, containers, and supplies, n.s.k. <sup>1</sup> .	.....	(X)	13,852	(X)	(X)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

<sup>1</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on standard forms.



TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

Item	Abrasive products (SIC 3291)	Asbestos products (SIC 3292)	Gaskets and insulations (SIC 3293)	Minerals, ground or treated (SIC 3295)	Mineral wool (SIC 3296)	Nonclay refractories (SIC 3297)	Nonmetallic products, n.e.c. (SIC 3299)
Total cost of purchased fuels and electric energy.....\$1,000..	9,590	8,765	4,001	15,902	16,660	6,800	1,194
Total cost of purchased fuels.....do....	4,366	3,799	2,231	10,051	11,708	4,443	736
Bituminous coal, lignite, and anthracite:							
Quantity.....1,000 short tons..	108	(S)	32	(S)	(S)	(S)	(S)
Cost.....\$1,000..	1,108	(S)	288	(S)	(S)	(S)	(S)
Coke and breeze:							
Quantity.....1,000 short tons..	-	(S)	-	-	(S)	-	-
Cost.....\$1,000..	-	(S)	-	-	(S)	-	-
Fuel oil (distillate and residual):							
Quantity.....1,000 barrels of 42 gallons..	288	(S)	407	1,070	288	297	(S)
Cost.....\$1,000..	1,131	(S)	1,245	3,805	946	1,081	(S)
Gas (natural, manufactured, still, blast furnace, and coke oven):							
Quantity.....million cu.ft..	4,476	2,960	652	8,880	19,593	6,076	234
Cost.....\$1,000..	1,792	1,427	441	3,577	7,604	3,070	122
Other fuels.....do....	335	271	257	1,592	210	(S)	241
Electric energy:							
Purchased:							
Quantity.....million kw.-hrs..	684	438	111	375	516	207	27
Cost.....\$1,000..	5,224	4,966	1,770	5,851	4,952	2,357	458
Generated less sold.....million kw.-hrs..	34	30	17	-	(S)	-	-
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	160	263	93	534	121	133	-
Prime movers, total.....do....	17	30	23	252	11	23	-
Driving generators.....do....	13	13	21	26	2	(Z)	-
Not driving generators.....do....	4	17	2	225	9	23	-
Electric motors, total.....do....	158	245	77	282	110	110	-
Driven by purchased energy.....do....	143	232	70	282	110	110	-
Driven by energy generated at establishment.....do....	15	12	7	-	(Z)	-	-
Aggregate horsepower per 100 production workers.....	885	1,485	847	8,171	1,019	2,309	-

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3291-	ABRASIVE PRODUCTS										
	Entire industry.....	378	28,170	186,971	18,583	36,695	107,628	416,415	287,458	704,212	15,506
	Establishments with—										
	90% or more specialization..	353	15,506	96,627	11,203	22,160	60,706	190,889	155,299	347,229	8,081
	75-89% specialization.....	8	4,448	32,171	2,865	5,441	18,408	82,049	53,794	136,156	2,441
32911	Nonmetallic artificial sized grains, powders and flour abrasives (primary product class of estab.).....	15	1,318	9,248	972	1,976	6,311	27,616	29,736	57,634	800
32912	Nonmetallic bonded abrasive products, inc. diamond abrasives (primary product class of estab.)	185	13,449	89,794	9,190	17,957	54,233	170,349	115,018	285,708	8,023
	Establishments with—										
	90% or more specialization....	160	8,346	55,295	5,968	11,762	35,256	97,864	64,484	163,316	4,597
	75-89% specialization.....	8	297	1,868	176	352	889	3,656	5,475	9,045	(D)
32913	Nonmetallic coated abrasive products (primary product class of estab.).....	52	10,696	71,803	6,289	12,422	35,946	169,671	110,595	280,476	5,068
	Establishments with—										
	90% or more specialization....	38	2,938	16,867	2,035	3,981	9,615	34,999	36,021	71,299	967
32914	Metal abrasives (primary product class of estab.).....	35	2,157	13,297	1,741	3,562	9,357	42,753	26,747	69,032	987
3292-	ASBESTOS PRODUCTS										
	Entire industry.....	124	19,516	118,024	15,738	32,884	89,766	269,067	240,725	509,236	12,381
	Establishments with—										
	90% or more specialization..	113	14,620	87,628	11,913	25,010	67,479	212,549	205,067	416,640	10,848
32922	Asbestos friction materials (primary product class of estab.)	28	7,210	42,651	5,638	11,555	31,354	83,729	52,067	137,272	2,061
	Establishments with—										
	90% or more specialization....	22	3,517	19,424	2,790	5,657	14,394	38,838	23,807	63,338	1,001
32924	Asbestos—cement shingles and clapboard (primary product class of estab.).....	14	1,276	7,466	1,037	2,087	5,742	17,051	15,392	32,578	1,175
32926	Vinyl asbestos floor tile (primary product class of estab.).....	20	4,812	31,194	3,903	8,545	23,755	79,312	111,598	187,603	4,908
	Establishments with—										
	75% and over.....	6	1,490	9,953	1,223	2,725	7,784	33,291	32,041	64,443	1,545
32927	Asbestos textiles and other asbestos and asbestos cement products (primary product class of estab.)	48	6,155	36,428	5,104	10,587	28,668	88,425	61,122	150,691	4,115
	Establishments with—										
	90% or more specialization....	39	4,531	27,015	3,782	7,900	21,684	73,094	51,575	125,751	3,379
3293-	GASKETS AND INSULATIONS										
	Entire industry.....	295	16,825	94,441	12,684	25,906	62,301	160,734	116,978	279,226	8,865
	Establishments with—										
	90% or more specialization..	250	7,564	41,896	5,665	11,616	26,446	76,596	60,836	137,480	3,081
	75-89% specialization.....	17	3,618	20,086	2,657	5,310	13,269	31,252	24,411	56,323	2,323
32932	Gaskets, all types (primary product class of estab.).....	182	13,875	76,056	10,565	21,469	50,726	125,671	89,594	216,346	7,312
	Establishments with—										
	90% or more specialization....	139	5,745	31,028	4,326	8,807	19,997	57,040	44,821	101,547	2,496
	75-89% specialization.....	13	3,341	18,097	2,494	4,978	12,184	28,236	22,080	50,872	2,077
32933	Packing, except leather, rubber and metal, and asbestos insulations (primary product class of estab.).....	43	2,301	14,299	1,677	3,506	9,355	27,385	21,466	49,091	894
	Establishments with—										
	90% or more specialization....	24	516	3,330	381	798	2,059	5,978	5,513	11,658	(D)
	75-89% specialization.....	4	447	2,652	325	666	1,759	4,481	4,139	8,710	(D)



TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3296-	MINERAL WOOL										
	Entire industry.....	123	14,733	92,347	11,647	24,781	69,089	206,846	186,772	391,873	37,956
	Establishments with--										
	90% or more specialization..	109	12,447	76,208	9,791	20,887	58,612	177,752	157,271	332,546	33,205
	75-89% specialization.....	4	142	959	104	242	591	2,233	2,516	4,818	239
32961	Mineral wool for structural insulation (primary product class of estab.).....	37	3,973	23,989	3,049	6,434	17,076	53,964	50,767	104,918	17,839
	Establishments with--										
	90% or more specialization....	24	1,317	6,870	985	1,985	4,504	15,404	14,002	29,229	14,816
	75-89% specialization.....	6	668	4,098	481	1,048	2,716	8,493	8,499	17,153	1,186
32962	Mineral wool for industrial and equipment insulation (primary product class of estab.).....	44	10,484	66,897	8,393	17,939	51,056	149,674	131,227	278,866	16,872
	Establishments with--										
	90% or more specialization..	30	3,120	17,108	2,503	5,479	13,031	50,571	26,744	76,821	3,083
	75-89% specialization.....	7	3,765	24,607	3,036	6,509	19,930	49,573	50,693	99,024	6,793
3299-	NONMETALLIC MINERALS, N.E.C.										
	Entire industry.....	320	5,471	27,094	4,361	8,266	18,231	53,289	43,408	96,188	2,187
	Establishments with--										
	90% or more specialization..	301	4,359	19,900	3,575	6,671	14,199	37,602	30,136	67,175	1,322

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified

## Primary Metal Industries

- 33A Blast furnaces, steel works, and rolling and finishing mills
- 33B Iron and steel foundries
- 33C Smelting and refining of nonferrous metals alloys
- 33D Nonferrous metal mill and foundry products
- 33E Forgings and misc. primary metal industries

This major group includes establishments engaged in the smelting and refining of ferrous and nonferrous metals from ore, pig, or scrap; in the rolling, drawing, and alloying of ferrous and nonferrous metals; in the manufacture of castings, forgings, and other basic products of ferrous and nonferrous metals; and in the manufacture of nails, spikes, and insulated wire and cable. This major group also includes the production of coke.



# PRIMARY METAL INDUSTRIES: MAJOR GROUP 33

Value Added by Manufacture by State: 1963

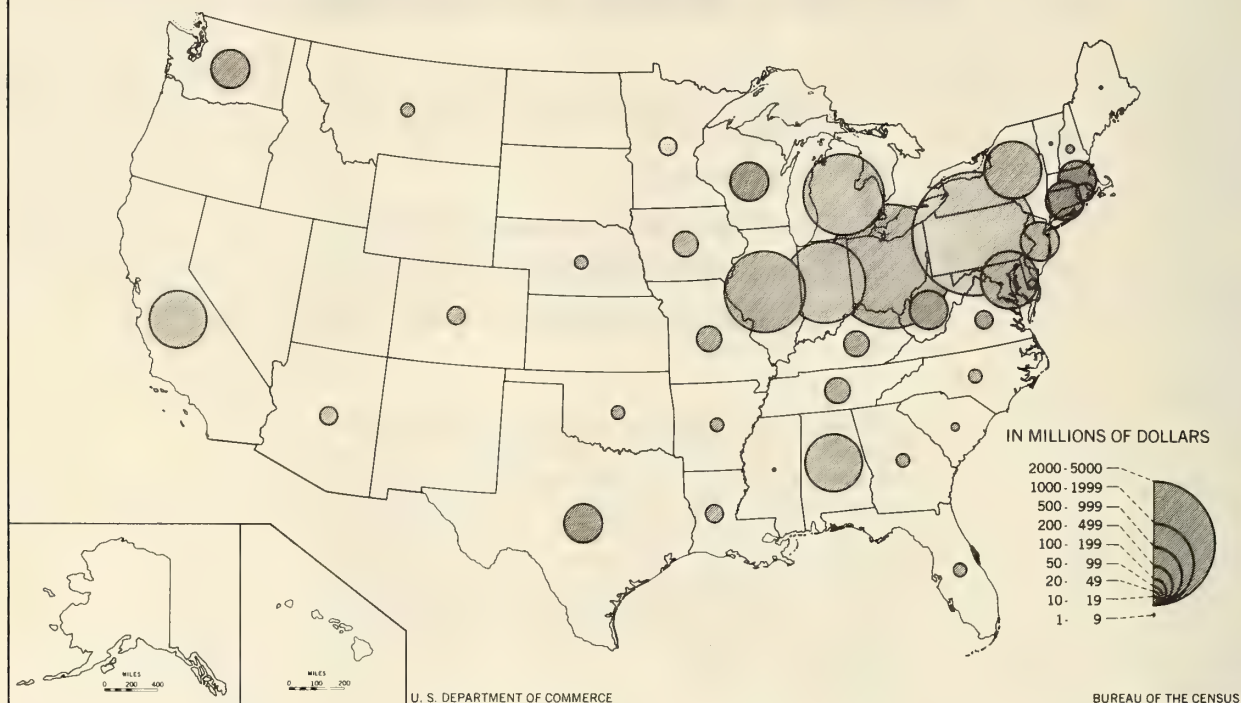


TABLE 1. General Statistics: 1963 and Earlier Years

Year and item	Establishments		All employees <sup>1</sup>		Production workers			Value added by manufacture, adjusted <sup>2</sup>	Cost of materials <sup>3</sup>	Value of shipments <sup>3</sup>	Capital expenditures, new <sup>4</sup>
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
ALL MANUFACTURING ESTABLISHMENTS, TOTAL:											
1963 . . . . .	6 739	3 733	1 166 953	8 148 976	922 160	1 838 970	5 933 628	15 261 089	20 474 219	35 621 453	1 446 303
1958 . . . . .	6 661	3 545	1 129 512	6 600 300	882 946	1 670 004	4 695 806	11 542 204	(NA)	27 323 600	1 543 695
1954 . . . . .	(NA)	(NA)	1 187 126	5 508 991	966 478	1 865 662	4 104 712	9 771 558	(NA)	(NA)	910 396
ADMINISTRATIVE AND AUXILIARY UNITS:											
1963 <sup>5</sup> . . . . .	226	150	40 417	414 947	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1958 <sup>5</sup> . . . . .	214	133	37 585	319 831	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1954 <sup>5</sup> . . . . .	(NA)	(NA)	34 907	248 890	(X)	(X)	(X)	(X)	(X)	(X)	(X)
OPERATING MANUFACTURING ESTABLISHMENTS:											
1963 . . . . .	6 513	3 583	1 126 536	7 734 129	922 160	1 838 970	5 933 628	15 261 089	20 474 219	35 621 458	1 446 303
1958 . . . . .	6 447	3 412	1 091 927	6 280 469	882 946	1 670 004	4 695 806	11 542 204	(NA)	27 323 600	1 543 695
1954 <sup>6</sup> . . . . .	(NA)	(NA)	1 152 219	5 260 101	966 478	1 865 662	4 104 712	9 771 558	(NA)	(NA)	910 396
OPERATING MANUFACTURING ESTABLISHMENTS (ORIGINAL)	5 838	(NA)	1 119 716	5 111 522	938 511	1 812 027	3 985 548	9 390 435	(NA)	(NA)	831 095
OPERATING MANUFACTURING ESTABLISHMENTS:											
1962 <sup>7</sup> . . . . .	(NA)	(NA)	1 128 124	7 482 272	917 141	1 795 457	5 657 804	13 677 928	19 744 374	33 644 892	1 158 704
1961 <sup>7</sup> . . . . .	(NA)	(NA)	1 099 811	7 059 506	890 879	1 723 135	5 270 966	12 758 492	19 724 142	31 521 934	1 222 427
1960 <sup>7</sup> . . . . .	(NA)	(NA)	1 174 472	7 214 826	956 936	1 836 543	5 424 259	13 283 305	(NA)	(NA)	1 615 431
1959 <sup>7</sup> . . . . .	(NA)	(NA)	1 143 649	7 057 356	947 001	1 830 145	5 354 030	13 577 550	(NA)	(NA)	1 075 996
1957 <sup>7</sup> . . . . .	(NA)	(NA)	1 271 940	7 018 584	1 053 293	2 057 371	5 439 962	13 320 274	(NA)	(NA)	2 149 779
1956 <sup>7</sup> . . . . .	(NA)	(NA)	1 319 204	6 892 645	1 109 459	2 195 376	5 444 329	13 847 991	(NA)	(NA)	1 650 962
1955 <sup>7</sup> . . . . .	(NA)	(NA)	1 273 761	6 418 291	1 075 733	2 192 269	5 117 098	12 962 929	(NA)	(NA)	977 362
1953 <sup>7</sup> . . . . .	(NA)	(NA)	1 287 765	6 001 743	1 102 455	2 252 974	4 867 388	11 003 954	(NA)	(NA)	1 211 656
1952 <sup>7</sup> . . . . .	(NA)	(NA)	1 240 337	5 214 580	1 065 557	2 071 441	4 204 165	9 050 545	(NA)	(NA)	(NA)
1951 <sup>7</sup> . . . . .	5 490	(NA)	1 244 210	5 137 288	1 079 120	2 255 874	4 218 802	9 760 640	(NA)	(NA)	1 126 715
1950 <sup>7</sup> . . . . .	5 322	(NA)	1 129 040	4 157 451	977 450	2 008 705	3 400 055	7 950 990	(NA)	(NA)	548 253
1949 <sup>7</sup> . . . . .	(NA)	(NA)	1 016 289	3 464 563	868 079	1 701 606	2 769 637	5 710 240	(NA)	(NA)	567 956
1947 <sup>7</sup> . . . . .	5 365	(NA)	1 158 158	3 601 791	1 012 008	2 053 663	2 982 736	5 733 028	(NA)	(NA)	592 177
1939 <sup>8</sup> . . . . .	3 512	(NA)	(NA)	(NA)	672 438	(NA)	978 355	2 168 899	(NA)	(NA)	(NA)
1937 <sup>8</sup> . . . . .	3 245	(NA)	(NA)	(NA)	792 096	(NA)	1 204 929	2 519 978	(NA)	(NA)	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. Revised.

<sup>1</sup>The figures for 1939 through 1963 include data for employees of manufacturing establishments who were engaged in distribution and construction work. The extent to which data for such employees are included in the figures for earlier years is not known.

<sup>2</sup>For the period 1954 to 1963, figures represent adjusted value added by manufacture and for earlier years, unadjusted value added. Adjusted value added is equal to value of shipments (including resales of finished products) less cost of finished products, materials, supplies, fuel, electric energy and contract work, plus the net change in the value of finished products and work-in-process inventories between the beginning and end of the year, without adjustment for price changes. Unadjusted value added is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. See Introduction, "Value Added by Manufacture."

<sup>3</sup>The total value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry classification. For a more complete explanation, see Introduction.

<sup>4</sup>The figures for 1958 to 1963 include expenditures for plants under construction and not yet in operation.

<sup>5</sup>In addition to data for operating establishments, figures for employment and payroll for manufacturing central administrative office and auxiliary units are shown for the

years 1949 to 1953 in the annual survey of manufactures volumes. Data for these units are not available for the years 1955 to 1957 - 1959 to 1962, and prior to 1949.

<sup>6</sup>The 1957 edition of the Standard Industrial Classification classifies beehive coke ovens and byproduct coke ovens in Major Group 33. Such establishments were previously included in Major Group 29, Petroleum and Coal Products. However, this change was reflected in the tabulations for the 1955 to 1957 annual surveys of manufactures. Data for 1954 were retabulated on this basis and are the source of the data labeled "Revised."

<sup>7</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, consequently, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>8</sup>The figures for 1939 to 1958 are not entirely comparable with those for 1937 because the 1937 figures (a) include data for establishments primarily engaged in producing certain nonferrous bearings and aluminum products (ship bunks, ornamental metal work, stampings, novelties, valves and fittings, machined castings and tags), and (b) exclude data for establishments primarily engaged in making electrometallurgical products, nonferrous die castings and forgings, cast aluminum cooking ware, and in the heat treating of steel. Value added by manufacture for 1939 on a basis strictly comparable with 1937 was \$2,131.2 million. Figures have not been compiled for 1935 and prior years because of large elements of noncomparability in the earlier statistics of a number of industries included in the primary metal group.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
		(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(number)	(\$1,000)
33	PRIMARY METAL INDUSTRIES, TOTAL. . .	6 513	3 583	1 126 536	7 734 129	922 160	1 838 970	5 933 628	15 261 089	1446 303	1 091 927	11 542 204
	NORTHEAST . . . . .	2 111	1 154	374 414	2 515 098	300 802	593 260	1 887 698	4 629 817	345 872	391 652	3 800 741
	NEW ENGLAND . . . . .	611	333	59 562	361 704	47 650	97 317	264 534	640 880	36 020	59 241	524 749
	MAINE . . . . .	9	4	244	1 162	181	346	711	1 691	228	247	1 836
	NEW HAMPSHIRE . . . . .	24	14	1 696	8 642	1 340	2 728	5 903	16 119	502	1 747	15 762
	VERMONT . . . . .	10	6	604	3 112	474	925	2 037	4 499	279	445	3 893
	MASSACHUSETTS . . . . .	252	145	22 057	130 789	17 555	35 630	94 313	201 819	9 945	22 724	184 040
	RHODE ISLAND . . . . .	85	40	9 096	48 632	7 594	15 146	36 568	94 983	5 282	8 577	74 874
	CONNECTICUT . . . . .	231	124	25 865	169 367	20 506	42 542	125 002	321 769	19 784	25 501	244 344
	MIDDLE ATLANTIC . . . . .	1 500	821	314 852	2 153 394	253 152	495 943	1 623 164	3 988 937	309 852	332 411	3 275 992
	NEW YORK . . . . .	510	251	68 539	459 449	55 178	109 930	347 088	916 516	50 452	68 340	667 696
	NEW JERSEY . . . . .	366	190	35 925	230 454	27 651	56 317	164 768	408 644	27 585	37 206	370 542
	PENNSYLVANIA . . . . .	624	380	210 388	1 463 491	170 323	329 696	1 111 308	6 643 917	231 815	226 865	2 237 754
	NORTH CENTRAL . . . . .	2 576	1 507	486 837	3 449 526	403 046	811 059	1 681 678	6 275 049	720 786	446 536	4 729 987
	EAST NORTH CENTRAL . . . . .	2 241	1 331	457 516	3 262 256	379 001	762 495	2 541 234	6 283 863	700 107	419 112	4 456 103
	OHIO . . . . .	667	394	155 447	1 100 486	130 507	258 635	874 310	2 197 734	209 570	148 676	1 604 875
	INDIANA . . . . .	245	153	93 613	681 338	76 901	155 097	531 294	1 456 412	249 402	87 846	1 047 335
	ILLINOIS . . . . .	575	340	97 850	689 516	79 964	158 609	519 885	1 176 747	94 816	89 432	906 854
	MICHIGAN . . . . .	556	321	81 807	604 915	68 277	143 232	473 674	1 155 577	129 952	67 977	683 092
	WISCONSIN . . . . .	198	123	28 799	186 001	23 352	46 922	142 071	288 579	16 367	25 181	213 947
	WEST NORTH CENTRAL . . . . .	335	176	29 321	187 270	24 045	48 564	140 444	368 868	20 679	27 424	273 884
	MINNESOTA . . . . .	85	42	5 484	35 248	4 773	9 389	28 545	64 633	1 864	5 559	47 311
	IOWA . . . . .	71	36	7 177	48 376	5 772	12 291	36 173	107 979	11 663	5 294	62 276
	MISSOURI . . . . .	122	67	12 798	82 204	10 337	20 443	59 700	153 109	4 678	13 575	131 716
	NORTH DAKOTA . . . . .	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	SOUTH DAKOTA . . . . .	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	NEBRASKA . . . . .	18	12	1 840	11 292	1 440	2 992	8 055	26 000	1 932	1 108	20 383
	KANSAS . . . . .	37	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1 879	12 160
	SOUTH . . . . .	871	490	178 101	1 172 609	147 577	293 778	913 826	2 652 056	295 355	164 410	2 015 250
	SOUTH ATLANTIC . . . . .	360	177	75 662	515 221	61 981	122 409	398 578	1 099 161	115 630	73 618	882 396
	DELAWARE . . . . .	9	5	2 282	14 532	1 887	3 490	10 645	19 371	1 259	2 952	21 093
	MARYLAND . . . . .	50	29	36 035	250 293	28 788	55 555	190 129	509 289	45 959	35 991	430 062
	VIRGINIA . . . . .	52	32	5 400	31 759	4 571	10 104	25 670	61 742	4 497	4 829	48 972
	WEST VIRGINIA . . . . .	40	28	21 652	166 685	18 096	35 586	132 754	389 749	37 873	21 662	323 825
	NORTH CAROLINA . . . . .	59	24	3 360	17 345	2 805	5 810	12 868	40 993	20 617	2 720	23 303
	SOUTH CAROLINA . . . . .	15	7	1 096	4 951	1 029	2 016	4 377	11 174	1 162	704	7 463
	GEORGIA . . . . .	58	28	3 514	18 188	2 841	5 768	13 122	35 998	2 457	3 252	16 191
	FLORIDA . . . . .	77	24	2 323	11 468	1 964	4 080	9 013	30 845	1 806	1 508	11 487
	EAST SOUTH CENTRAL . . . . .	217	153	63 786	417 022	53 690	106 390	333 327	1 003 349	150 014	57 718	691 008
	KENTUCKY . . . . .	35	25	9 825	68 212	8 175	16 271	53 688	148 677	(D)	8 087	98 437
	TENNESSEE . . . . .	78	49	13 298	81 054	11 507	23 630	67 146	154 018	(D)	11 127	120 697
	ALABAMA . . . . .	91	72	40 078	265 025	33 536	65 523	210 521	693 292	42 978	38 024	469 497
	MISSISSIPPI . . . . .	13	7	585	2 731	472	966	1 972	7 362	155	480	2 377
	WEST SOUTH CENTRAL . . . . .	294	160	38 653	240 366	31 906	64 979	181 921	549 546	29 711	33 074	441 846
	ARKANSAS . . . . .	28	19	3 121	18 543	2 602	5 382	14 364	37 291	2 599	2 450	36 297
	LOUISIANA . . . . .	23	12	3 869	25 159	3 246	6 603	19 506	85 677	3 231	3 550	84 460
	OKLAHOMA . . . . .	47	25	3 795	20 563	3 305	6 349	16 218	45 796	2 992	2 940	23 121
	TEXAS . . . . .	196	104	27 868	176 101	22 753	46 645	131 833	380 782	20 889	24 134	297 968
	WEST . . . . .	958	436	88 191	604 087	71 406	142 422	455 223	1 342 688	83 889	89 329	1 094 649
	MOUNTAIN . . . . .	116	63	25 323	171 394	20 757	40 162	130 765	474 895	19 932	28 351	351 264
	MONTANA . . . . .	12	10	3 261	18 144	2 643	4 939	14 234	47 795	(D)	(D)	(D)
	IDAHO . . . . .	5	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	COLORADO . . . . .	44	18	7 642	51 668	6 333	12 391	40 430	91 813	2 496	(D)	(D)
	NEW MEXICO . . . . .	4	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	ARIZONA . . . . .	28	13	4 480	29 441	3 771	7 528	22 440	73 531	4 293	5 137	49 409
	UTAH . . . . .	19	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	140 725
	NEVADA . . . . .	4	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	8 439	(D)
	PACIFIC . . . . .	842	373	62 868	432 693	50 649	102 260	324 458	867 793	63 957	60 978	743 385
	WASHINGTON . . . . .	77	35	9 768	70 697	7 991	16 237	55 063	202 202	10 729	10 320	172 040
	OREGON . . . . .	53	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	4 214	65 784
	CALIFORNIA . . . . .	710	313	48 469	330 945	38 954	78 639	245 842	603 882	50 077	46 444	505 561
	HAWAII . . . . .	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
331	STEEL ROLLING AND FINISHING, TOTAL . .	746	593	568 849	4 167 859	466 263	901 989	3 225 011	8 617 266	974 367	578 185	6 862 919
	NORTHEAST . . . . .	287	231	210 096	1 498 576	169 845	326 341	1 143 943	2 837 166	237 857	225 725	2 362 851
	NEW ENGLAND . . . . .	58	50	11 575	77 386	9 042	17 882	56 240	141 416	7 658	11 237	103 309
	MASSACHUSETTS . . . . .	30	26	4 642	30 876	3 696	6 975	22 964	42 451	1 740	6 165	53 125
	CONNECTICUT . . . . .	21	18	4 893	33 910	3 610	7 461	23 652	72 429	4 538	3 129	31 677
	MIDDLE ATLANTIC . . . . .	229	181	198 521	1 421 190	160 803	308 459	1 087 703	2 695 750	230 199	214 488	2 259 542
	NEW YORK . . . . .	53	37	31 552	227 113	25 806	50 652	176 512	462 052	27 167	32 060	354 848
	NEW JERSEY . . . . .	38	25	5 734	38 547	4 209	8 259	26 200	78 564	3 541	6 078	64 297
	PENNSYLVANIA . . . . .	138	119	161 235	1 155 530	130 788	249 548	884 991	2 155 134	199 491	176 350	1 840 397

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
		Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
331	STEEL ROLLING AND FINISHING—CONT.											
	NORTH CENTRAL . . . . .	249	203	236 137	1 782 832	196 264	383 238	1 397 295	3 785 887	520 181	229 277	2 834 673
	EAST NORTH CENTRAL . . . . .	233	192	228 033	1 723 597	189 967	371 245	1 356 170	3 662 581	515 987	220 097	2 726 928
	OHIO . . . . .	84	76	92 152	673 356	78 583	151 046	544 848	1 441 640	165 767	93 387	1 111 351
	INDIANA . . . . .	27	21	59 295	454 205	48 493	95 288	353 741	1 056 396	204 806	58 388	791 391
	ILLINOIS . . . . .	73	56	48 244	365 334	39 539	77 527	279 274	623 058	51 018	44 450	512 024
	MICHIGAN . . . . .	41	32	26 001	215 130	21 463	43 501	166 135	509 992	92 625	21 001	275 712
	WISCONSIN . . . . .	8	7	2 341	15 572	1 889	3 883	12 172	31 495	1 771	2 871	36 450
	WEST NORTH CENTRAL . . . . .	16	11	8 104	59 235	6 297	11 993	41 125	123 306	4 194	9 180	107 745
	MISSOURI . . . . .	7	4	4 623	36 376	3 338	6 419	23 178	75 090	(D)	5 291	69 851
	SOUTH . . . . .	117	101	89 880	639 975	73 732	141 910	499 522	1 503 160	174 382	88 950	1 181 790
	SOUTH ATLANTIC . . . . .	56	46	48 229	347 689	39 722	76 359	274 208	745 495	56 206	49 946	658 668
	VIRGINIA . . . . .	13	10	644	3 646	587	1 309	3 112	7 451	588	(D)	(D)
	WEST VIRGINIA . . . . .	12	10	14 771	116 584	12 725	24 980	97 845	272 193	15 340	16 253	242 957
	FLORIDA . . . . .	8	8	455	2 655	389	844	2 120	9 247	475	(D)	(D)
	EAST SOUTH CENTRAL . . . . .	40	38	32 104	223 252	26 503	50 743	175 959	632 875	108 812	29 227	403 341
	KENTUCKY . . . . .	9	9	7 493	53 718	6 351	12 568	43 258	113 642	(D)	6 273	81 377
	TENNESSEE . . . . .	12	11	2 618	12 528	2 254	4 592	10 114	21 434	1 388	(D)	(D)
	ALABAMA . . . . .	16	15	21 774	155 927	17 716	33 187	121 858	494 929	(D)	20 874	301 657
	MISSISSIPPI . . . . .	3	3	219	1 079	182	396	729	2 870	42	(D)	(D)
	WEST SOUTH CENTRAL . . . . .	21	17	9 547	69 034	7 507	14 808	49 355	124 790	9 364	9 777	119 781
	TEXAS . . . . .	17	13	8 901	64 718	6 965	13 771	46 020	116 300	8 687	(D)	(D)
	WEST . . . . .	93	58	33 062	249 049	26 659	50 903	185 831	494 292	41 422	34 233	483 605
	WASHINGTON . . . . .	8	5	1 388	9 757	1 098	2 136	7 204	18 225	608	(D)	(D)
	CALIFORNIA . . . . .	69	40	19 459	147 256	15 779	30 104	110 127	267 447	32 961	18 865	263 984
332	IRON AND STEEL FOUNDRIES, TOTAL . . .	1 487	1 058	199 635	1 233 624	170 699	348 180	989 212	1 959 949	108 938	182 033	1 322 220
	NORTHEAST . . . . .	384	276	41 301	246 734	35 197	70 434	196 415	383 292	17 220	42 409	292 082
	NEW ENGLAND . . . . .	107	73	6 825	37 620	5 899	13 003	30 065	58 177	2 647	7 073	43 710
	NEW HAMPSHIRE . . . . .	7	5	571	2 904	437	927	1 987	5 264	79	448	2 621
	MASSACHUSETTS . . . . .	51	34	3 089	16 944	2 788	6 575	14 272	27 067	(D)	3 896	25 932
	CONNECTICUT . . . . .	28	22	2 457	14 395	2 048	4 263	11 026	21 054	1 162	2 098	12 517
	MIDDLE ATLANTIC . . . . .	277	203	34 476	209 114	29 298	57 431	166 350	325 115	14 573	35 336	248 372
	NEW YORK . . . . .	68	48	7 273	44 212	6 184	12 408	35 344	74 761	2 408	7 256	50 684
	NEW JERSEY . . . . .	44	32	5 130	29 625	4 283	8 497	23 444	49 054	4 394	6 330	48 317
	PENNSYLVANIA . . . . .	165	123	22 073	135 277	18 831	36 526	107 562	201 300	7 771	21 750	149 371
	NORTH CENTRAL . . . . .	661	500	114 800	756 280	97 585	201 519	605 633	1 197 652	73 810	98 015	728 964
	EAST NORTH CENTRAL . . . . .	540	424	104 921	701 008	89 028	184 632	560 395	1 109 023	70 138	88 855	665 493
	OHIO . . . . .	158	125	29 150	194 805	24 744	51 338	155 867	326 106	20 435	25 637	203 025
	INDIANA . . . . .	73	54	12 628	80 281	11 058	23 005	66 852	118 986	6 821	11 603	88 219
	ILLINOIS . . . . .	107	85	18 250	116 545	15 366	29 826	89 209	185 759	12 013	16 357	110 239
	MICHIGAN . . . . .	120	97	30 384	218 978	26 128	56 644	180 077	350 656	23 981	24 323	188 426
	WISCONSIN . . . . .	82	63	14 509	90 399	11 732	23 819	68 390	127 516	6 888	10 935	75 584
	WEST NORTH CENTRAL . . . . .	121	76	9 879	55 272	8 557	16 887	45 238	88 629	3 672	9 160	63 471
	IOWA . . . . .	30	21	2 630	14 654	2 256	4 344	12 038	22 029	1 336	2 007	13 581
	MISSOURI . . . . .	37	26	4 172	23 713	3 659	7 197	19 683	37 414	1 187	4 117	27 066
	KANSAS . . . . .	19	11	1 604	8 041	1 357	2 689	6 343	13 486	316	(D)	(D)
	SOUTH . . . . .	265	173	31 896	160 510	28 083	56 412	131 221	255 377	13 702	29 866	203 506
	SOUTH ATLANTIC . . . . .	107	59	8 210	41 213	7 243	15 095	34 140	73 545	4 876	8 092	52 257
	MARYLAND . . . . .	8	7	756	3 858	657	1 423	3 021	5 323	1 369	771	5 162
	GEORGIA . . . . .	18	9	723	2 866	638	1 292	2 345	3 552	140	709	2 520
	EAST SOUTH CENTRAL . . . . .	84	69	15 465	80 713	13 647	27 162	66 549	118 445	5 421	14 800	104 338
	KENTUCKY . . . . .	8	7	289	1 343	260	491	1 095	1 538	11	(D)	(D)
	TENNESSEE . . . . .	25	20	3 573	17 991	3 080	6 120	14 579	15 280	725	2 712	16 261
	ALABAMA . . . . .	47	40	11 459	60 759	10 189	20 317	50 356	100 592	4 652	11 815	86 842
	MISSISSIPPI . . . . .	4	2	144	620	118	234	519	1 035	33	(D)	(D)
	WEST SOUTH CENTRAL . . . . .	74	45	8 221	38 584	7 193	14 155	30 532	63 387	3 405	6 974	46 911
	ARKANSAS . . . . .	7	3	346	1 458	318	598	1 193	1 821	142	(D)	(D)
	LOUISIANA . . . . .	9	5	877	4 678	738	1 555	3 795	7 823	356	(D)	(D)
	OKLAHOMA . . . . .	14	11	1 035	4 694	913	1 607	3 669	7 190	369	853	5 024
	TEXAS . . . . .	44	26	5 963	27 754	5 224	10 395	21 875	46 553	2 538	5 164	35 310
	WEST . . . . .	178	110	11 765	70 726	9 931	20 017	56 469	122 896	4 198	11 743	97 668
	OREGON . . . . .	19	11	1 635	10 196	1 376	2 715	8 463	16 286	460	1 496	13 582
	CALIFORNIA . . . . .	109	72	7 402	44 062	6 358	12 685	35 051	75 924	2 239	7 688	59 924

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
		(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(number)	(\$1,000)
333	PRIMARY NONFERROUS METAL, TOTAL . . .	119	109	48 789	327 814	39 652	80 832	251 432	1 012 581	87 439	47 247	708 523
	NORTHEAST . . . . .	24	17	9 567	64 517	7 272	15 339	46 202	141 984	7 319	8 651	85 979
	NEW YORK . . . . .	7	6	2 265	15 777	1 822	3 732	12 142	57 893	731	2 235	24 476
	NORTH CENTRAL . . . . .	18	17	5 059	34 515	3 938	8 167	25 412	85 579	20 475	3 690	40 500
	ILLINOIS . . . . .	4	4	840	5 191	708	1 422	4 046	10 523	743	1 561	12 160
	SOUTH . . . . .	36	35	18 530	125 521	15 504	31 556	99 505	393 432	43 579	18 244	342 520
	SOUTH ATLANTIC . . . . .	7	7	3 075	20 687	2 448	4 966	15 849	63 806	(D)	2 726	48 095
	EAST SOUTH CENTRAL . . . . .	6	6	2 947	20 611	2 362	4 781	15 784	62 973	(D)	3 221	55 082
	WEST SOUTH CENTRAL . . . . .	23	22	12 508	84 223	10 694	21 809	67 872	266 653	(D)	12 297	239 343
	TEXAS . . . . .	13	13	6 977	46 977	5 947	12 250	38 358	148 049	5 098	6 822	125 479
	WEST . . . . .	41	40	15 633	103 261	12 938	25 770	80 313	391 164	16 052	16 662	239 524
	MOUNTAIN . . . . .	27	27	9 454	59 211	8 006	15 845	47 217	220 684	9 305	10 777	126 163
	ARIZONA . . . . .	8	8	2 407	16 952	2 048	4 404	13 154	56 961	(D)	(D)	(D)
	PACIFIC . . . . .	14	13	6 179	44 050	4 932	9 925	33 096	170 480	6 747	5 885	113 361
	WASHINGTON . . . . .	8	7	4 234	31 142	3 528	7 081	24 568	138 061	4 510	(D)	(D)
334	SECONDARY NONFERROUS METALS, TOTAL .	459	179	15 445	96 302	11 336	23 779	60 510	228 190	17 891	14 441	147 262
335	NONFERROUS ROLLING AND DRAWING, TOTAL	748	539	167 005	1 094 356	130 419	271 348	793 596	2 127 688	191 376	155 679	1 687 195
	NORTHEAST . . . . .	350	264	73 284	458 691	56 603	115 823	323 962	845 183	62 104	75 119	747 107
	NEW ENGLAND . . . . .	143	118	30 759	181 980	24 593	49 732	132 673	333 952	21 299	30 984	297 281
	VERMONT . . . . .	3	3	405	2 189	299	596	1 293	3 092	222	(D)	(D)
	MASSACHUSETTS . . . . .	47	40	8 162	42 710	6 424	12 527	29 140	72 035	4 726	6 814	55 894
	RHODE ISLAND . . . . .	25	20	6 425	32 824	5 312	10 662	24 503	60 568	3 536	6 086	53 584
	CONNECTICUT . . . . .	62	49	15 250	101 307	12 199	25 257	76 188	192 859	12 409	16 883	174 505
	MIDDLE ATLANTIC . . . . .	207	146	42 525	276 711	32 010	66 091	191 289	511 231	40 805	44 135	449 826
	NEW YORK . . . . .	85	55	17 046	108 554	13 043	26 083	76 248	211 215	11 190	15 658	163 553
	NEW JERSEY . . . . .	75	55	13 702	89 985	10 200	21 135	62 931	163 588	10 708	14 614	166 235
	PENNSYLVANIA . . . . .	47	36	11 777	78 172	8 767	18 873	52 110	136 428	18 907	13 863	120 038
	NORTH CENTRAL . . . . .	216	161	53 265	359 620	41 356	87 397	261 914	732 895	61 005	44 129	527 083
	EAST NORTH CENTRAL . . . . .	197	150	48 115	320 042	37 424	78 314	233 366	623 915	51 229	(D)	(D)
	INDIANA . . . . .	33	26	12 676	84 869	9 968	21 518	63 559	179 955	13 365	11 365	117 465
	ILLINOIS . . . . .	60	42	13 872	92 880	10 647	22 072	66 063	174 586	21 200	10 626	128 439
	WISCONSIN . . . . .	6	5	1 859	12 350	1 638	3 371	10 282	28 123	1 352	1 702	23 021
	WEST NORTH CENTRAL . . . . .	19	11	5 150	39 578	3 932	9 083	28 548	108 980	9 776	(D)	(D)
	SOUTH . . . . .	92	61	26 332	180 468	21 162	44 525	136 186	374 512	54 162	21 412	242 086
	SOUTH ATLANTIC . . . . .	51	32	13 834	94 273	10 683	22 130	66 136	191 761	33 091	11 253	110 789
	MARYLAND . . . . .	6	5	4 360	31 285	3 365	6 860	22 900	50 703	5 199	(D)	(D)
	NORTH CAROLINA . . . . .	10	7	1 349	7 677	1 073	2 381	5 326	25 729	(D)	(D)	(D)
	GEORGIA . . . . .	11	7	1 215	5 536	937	2 091	3 688	11 529	1 411	600	3 762
	FLORIDA . . . . .	10	4	686	3 702	582	1 368	3 003	12 603	982	639	6 162
	EAST SOUTH CENTRAL . . . . .	22	16	10 584	75 390	8 919	18 882	61 818	156 324	19 043	8 993	117 587
	WEST SOUTH CENTRAL . . . . .	19	13	1 914	10 805	1 560	3 513	8 232	26 427	2 028	1 166	13 710
	TEXAS . . . . .	15	10	1 492	8 438	1 240	2 803	6 623	21 676	1 614	(D)	(D)
	WEST . . . . .	93	56	14 683	99 590	11 639	24 556	74 245	185 485	14 308	15 019	170 919
	PACIFIC . . . . .	85	52	12 289	84 339	9 781	21 141	63 108	153 089	12 366	(D)	(D)
336	NONFERROUS FOUNDRIES, TOTAL . . . . .	1 894	679	69 243	412 050	58 426	119 804	317 697	656 485	30 571	62 159	470 741
	NORTHEAST . . . . .	570	188	20 069	117 542	16 894	34 625	90 158	184 249	6 263	18 521	133 342
	NEW ENGLAND . . . . .	169	50	4 133	22 160	3 552	7 166	16 906	35 589	1 401	(D)	(D)
	MASSACHUSETTS . . . . .	76	22	1 613	8 377	1 391	2 770	6 475	13 744	573	1 690	10 793
	RHODE ISLAND . . . . .	21	4	240	1 071	207	379	790	1 915	106	192	943
	CONNECTICUT . . . . .	62	21	1 874	10 787	1 594	3 310	8 069	16 412	652	1 810	12 663
	MIDDLE ATLANTIC . . . . .	401	138	15 936	95 382	13 342	27 459	73 252	148 660	4 862	(D)	(D)
	NEW YORK . . . . .	163	62	6 179	37 223	5 137	10 618	28 702	59 896	2 067	5 407	38 775
	NEW JERSEY . . . . .	99	34	3 784	23 364	3 130	6 390	17 734	33 936	1 220	(D)	(D)
	PENNSYLVANIA . . . . .	139	42	5 973	34 795	5 075	10 451	26 816	54 828	1 575	(D)	(D)

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
		Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
336	NONFERROUS FOUNDRIES--CONTINUED											
	NORTH CENTRAL . . . . .	807	338	36 600	224 396	30 998	63 571	173 355	351 164	17 533	33 983	264 180
	EAST NORTH CENTRAL . . . . .	689	285	32 426	202 185	27 380	56 130	155 514	313 597	15 954	29 837	232 883
	OHIO . . . . .	207	78	10 614	66 572	8 838	18 295	51 265	109 398	3 761	10 029	76 074
	INDIANA . . . . .	56	28	3 408	23 572	2 874	6 127	18 325	33 416	3 969	2 329	15 288
	ILLINOIS . . . . .	193	79	7 554	45 290	6 460	13 145	35 140	67 698	3 387	7 017	52 098
	MICHIGAN . . . . .	165	68	7 194	44 819	6 094	12 186	34 137	70 281	3 055	7 529	69 051
	WISCONSIN . . . . .	68	32	3 656	21 932	3 114	6 377	16 647	32 804	1 782	2 933	20 372
	WEST NORTH CENTRAL . . . . .	118	53	4 174	22 211	3 618	7 441	17 841	37 567	1 579	4 146	31 297
	MINNESOTA . . . . .	31	16	1 219	7 244	1 081	2 308	5 967	10 026	368	921	5 992
	MISSOURI . . . . .	46	20	1 785	9 368	1 538	3 099	7 566	15 914	603	2 562	21 015
	KANSAS . . . . .	11	5	199	907	183	392	767	1 642	87	(D)	(D)
	SOUTH . . . . .	202	54	5 181	27 720	4 360	8 979	21 443	47 721	4 213	3 007	18 657
	SOUTH ATLANTIC . . . . .	80	19	1 288	5 704	1 093	2 143	4 315	8 708	555	889	4 948
	MARYLAND . . . . .	7	3	232	1 144	181	361	780	1 651	71	144	786
	WEST VIRGINIA . . . . .	7	3	149	837	119	220	542	1 653	32	(D)	(D)
	NORTH CAROLINA . . . . .	11	3	139	556	124	250	453	654	20	(D)	(D)
	SOUTH CAROLINA . . . . .	6	2	100	385	90	191	308	586	(D)	(D)	(D)
	GEORGIA . . . . .	15	4	185	774	162	342	649	1 265	79	(D)	(D)
	FLORIDA . . . . .	27	3	316	1 086	276	481	911	1 465	112	175	1 089
	EAST SOUTH CENTRAL . . . . .	33	9	1 603	10 952	1 345	2 892	8 685	17 428	1 909	817	4 302
	TENNESSEE . . . . .	17	2	158	716	142	286	614	1 097	69	(D)	(D)
	WEST SOUTH CENTRAL . . . . .	89	26	2 290	11 064	1 922	3 944	8 443	21 585	1 749	1 301	9 407
	ARKANSAS . . . . .	9	8	1 057	5 186	866	1 758	3 915	11 517	1 239	302	3 067
	OKLAHOMA . . . . .	15	4	288	1 419	249	528	1 079	2 602	46	123	801
	TEXAS . . . . .	61	14	919	4 325	787	1 619	3 358	7 218	449	839	5 341
	WEST . . . . .	315	99	7 393	42 392	6 174	12 629	32 741	73 351	2 561	6 648	54 562
	MOUNTAIN . . . . .	26	4	301	1 406	263	511	1 133	1 781	51	419	2 625
	COLORADO . . . . .	18	3	220	990	195	377	826	1 238	34	307	2 035
	PACIFIC . . . . .	289	95	7 092	40 986	5 911	12 118	31 608	71 570	2 510	6 229	51 937
	WASHINGTON . . . . .	15	2	140	902	122	260	757	1 434	96	(D)	(D)
	OREGON . . . . .	17	4	270	1 529	245	485	1 407	2 883	122	(D)	(D)
	CALIFORNIA . . . . .	257	89	6 682	38 555	5 544	11 373	29 444	67 253	2 292	5 941	50 207
339	PRIMARY METAL INDUSTRIES, NEC, TOTAL	1 060	426	57 570	402 124	45 365	93 038	296 170	658 930	35 721	52 183	443 344
	NORTHEAST . . . . .	318	120	14 453	94 308	11 018	22 501	65 937	152 772	6 995	16 505	127 496
	MASSACHUSETTS . . . . .	30	17	4 316	30 406	3 111	6 432	20 653	38 356	1 717	3 900	32 291
	RHODE ISLAND . . . . .	14	3	233	1 094	185	348	774	1 972	97	(D)	(D)
	CONNECTICUT . . . . .	49	12	1 180	7 785	888	1 910	5 166	15 250	1 002	1 513	12 276
	NEW YORK . . . . .	72	28	2 362	14 638	1 873	3 801	10 714	22 892	1 254	4 236	24 395
	NORTH CENTRAL . . . . .	476	218	34 923	252 081	28 303	57 437	192 568	400 943	21 751	30 682	266 214
	EAST NORTH CENTRAL . . . . .	435	205	34 119	247 725	27 654	56 146	189 472	393 672	21 064	30 324	262 826
	OHIO . . . . .	131	56	9 137	66 554	7 411	15 223	51 597	99 363	6 173	8 342	64 453
	INDIANA . . . . .	41	16	4 219	29 020	3 530	7 162	22 948	49 470	3 026	3 119	26 877
	ILLINOIS . . . . .	93	49	6 540	47 778	5 340	10 599	35 707	79 416	3 334	5 932	55 902
	MICHIGAN . . . . .	145	70	7 887	59 285	6 479	13 828	45 099	99 143	4 069	6 250	57 916
	WISCONSIN . . . . .	25	14	6 336	45 088	4 894	9 334	34 121	66 280	4 462	6 681	57 678
	WEST NORTH CENTRAL . . . . .	41	13	804	4 356	649	1 291	3 096	7 271	687	358	3 388
	MINNESOTA . . . . .	14	5	265	1 601	204	407	1 085	2 580	452	134	1 567
	MISSOURI . . . . .	13	7	414	2 142	344	702	1 593	3 738	185	148	1 197
	SOUTH . . . . .	100	38	4 328	28 265	3 145	6 958	18 689	48 430	3 125	1 646	15 767
	SOUTH ATLANTIC . . . . .	34	4	265	1 320	201	419	922	2 142	173	169	1 301
	EAST SOUTH CENTRAL . . . . .	19	8	650	4 005	553	1 135	3 046	10 522	527	470	4 615
	TENNESSEE . . . . .	11	4	382	2 226	333	700	1 653	5 835	288	(D)	(D)
	WEST SOUTH CENTRAL . . . . .	47	26	3 413	22 940	2 391	5 404	14 721	35 766	2 425	1 007	9 851
	TEXAS . . . . .	35	22	3 111	21 315	2 177	4 943	13 742	32 980	2 292	771	7 609
	WEST . . . . .	166	50	3 866	27 470	2 899	6 142	18 970	51 756	3 798	3 350	32 290
	MOUNTAIN . . . . .	11	4	208	1 251	183	368	1 001	2 862	179	18	443
	PACIFIC . . . . .	155	46	3 658	26 219	2 716	5 774	17 969	48 894	3 619	3 332	31 847
	CALIFORNIA . . . . .	143	45	3 566	25 606	2 644	5 627	17 486	47 969	3 447	3 108	29 902

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Not applicable.  
This industry group consists of a single 4-digit industry. Detailed data by State are included in the 4-digit industry tables.



TABLE 3. Detailed Statistics: 1963

Item	Primary metal industries (SIC 33)	Steel rolling and finishing (SIC 331)	Iron and steel foundries (SIC 332)	Primary nonferrous metal (SIC 333)	Secondary nonferrous metals (SIC 334)	Nonferrous rolling and drawing (SIC 335)	Nonferrous foundries (SIC 336)	Primary metal industries, n.e.c. (SIC 339)
ESTABLISHMENTS, TOTAL . . . . . NUMBER . .	6 513	746	1 487	119	459	748	1 894	1 060
WITH 1 TO 19 EMPLOYEES. . . . . DO. .	2 930	153	429	10	280	209	1 215	634
WITH 20 TO 99 EMPLOYEES. . . . . DO. .	2 005	180	592	19	136	223	540	315
WITH 100 EMPLOYEES OR MORE. . . . . DO. .	1 578	413	466	90	43	316	139	111
PROPRIETORS AND WORKING PARTNERS. . . . . DO. .	1 916	56	440	3	174	92	863	288
ALL EMPLOYEES (AVERAGE FOR THE YEAR). . . . . DO. .	1 126 536	568 849	199 635	48 789	15 445	167 005	69 243	57 570
PAYROLL (ALL EMPLOYEES), TOTAL FOR YEAR \$1,000. .	7 734 129	4 167 859	1 233 624	327 814	96 302	1 094 356	412 050	402 124
PRODUCTION WORKERS:								
AVERAGE FOR THE YEAR. . . . . NUMBER . .	922 160	466 263	170 699	39 652	11 336	130 419	58 426	45 365
MARCH . . . . . DO. .	897 355	446 789	168 889	38 195	11 212	129 143	57 968	45 159
MAY . . . . . DO. .	947 080	489 698	171 514	39 225	11 343	131 824	58 223	45 253
AUGUST. . . . . DO. .	942 887	488 066	168 329	40 409	11 319	131 204	58 390	45 170
NOVEMBER. . . . . DO. .	901 545	440 788	174 065	40 770	11 449	129 472	59 123	45 878
MAN-HOURS . . . . . \$1,000. .	1 838 970	901 989	348 180	80 832	23 779	271 348	119 804	93 038
JANUARY-MARCH . . . . . DO. .	448 731	218 094	84 504	19 502	5 847	67 748	29 875	23 161
APRIL-JUNE. . . . . DO. .	488 207	248 160	89 848	20 127	6 007	69 611	30 364	24 090
JULY-SEPTEMBER. . . . . DO. .	444 780	217 527	84 034	20 268	5 836	65 933	29 207	21 975
OCTOBER-DECEMBER. . . . . DO. .	457 317	218 238	89 794	20 939	6 089	68 087	30 358	23 812
WAGES . . . . . \$1,000. .	5 933 628	3 225 011	989 212	251 432	60 510	793 596	317 697	296 170
COST OF MATERIALS, ETC., TOTAL <sup>1</sup> . . . . . DO. .	20 474 219	10 570 536	1 214 194	2 059 812	823 132	4 570 495	578 149	657 901
MATERIALS, PARTS, CONTAINERS, AND SUPPLIES CONSUMED. . . . . DO. .	18 345 144	9 463 418	994 655	1 838 041	676 580	4 309 017	498 683	564 750
COST OF RESALES. . . . . DO. .	495 022	152 367	49 091	10 289	125 853	123 977	10 653	22 792
FUELS CONSUMED. . . . . DO. .	870 929	620 214	82 635	69 095	10 081	43 083	14 552	31 269
ELECTRIC ENERGY:								
PURCHASED:								
QUANTITY. . . . . MILLION KW.-HRS. .	76 470	31 336	4 026	32 359	320	6 130	1 042	1 257
COST. . . . . \$1,000. .	531 309	265 966	48 524	123 366	4 167	58 983	13 154	17 149
GENERATED LESS SOLD . . . . . MILLION KW.-HRS. .	28 156	10 031	23	(D)	-	121	(D)	(D)
CONTRACT WORK . . . . . \$1,000. .	235 030	71 786	39 289	19 021	6 451	35 435	41 107	21 941
VALUE OF SHIPMENTS (INCLUDING RESALES), TOTAL <sup>1</sup> . . . . . DO. .	35 621 458	19 146 114	3 173 520	3 094 219	1 045 522	6 612 870	1 230 458	1 318 755
VALUE OF RESALES. . . . . DO. .	581 943	181 131	55 032	17 721	139 311	138 473	14 741	24 106
VALUE ADDED BY MANUFACTURE, ADJUSTED. . . . . DO. .	15 261 089	8 617 266	1 959 949	1 012 581	228 190	2 127 688	656 485	658 930
MANUFACTURERS' INVENTORIES:								
BEGINNING OF YEAR, TOTAL. . . . . DO. .	6 014 043	3 652 558	322 581	450 169	123 983	1 184 554	97 594	182 604
FINISHED PRODUCTS . . . . . DO. .	1 722 432	1 019 022	101 371	163 656	58 429	335 071	19 600	25 283
WORK-IN-PROCESS . . . . . DO. .	1 794 362	848 431	85 914	175 544	34 217	547 906	35 407	66 943
MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO. .	2 497 250	1 785 106	135 296	110 969	31 337	301 577	42 587	90 378
END OF YEAR, TOTAL. . . . . DO. .	6 057 254	3 612 137	317 985	424 709	143 083	1 275 494	102 852	180 994
FINISHED PRODUCTS . . . . . DO. .	1 739 440	1 024 850	106 243	115 659	66 341	379 742	21 113	25 492
WORK-IN-PROCESS . . . . . DO. .	1 893 725	886 091	81 665	201 715	32 105	588 572	38 070	65 507
MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO. .	2 424 089	1 701 196	130 077	107 335	44 637	307 180	43 669	89 995
EXPENDITURES FOR PLANT AND EQUIPMENT, TOTAL DO. .	1 498 380	997 652	115 151	89 073	18 982	201 014	34 003	42 505
NEW, TOTAL. . . . . DO. .	1 446 303	974 367	108 938	87 439	17 891	191 376	30 571	35 721
NEW STRUCTURES AND ADDITIONS TO PLANT. . . . . DO. .	386 988	291 528	16 127	34 486	5 324	27 213	6 280	6 030
NEW MACHINERY AND EQUIPMENT . . . . . DO. .	1 059 315	682 839	92 811	52 953	12 567	164 163	24 291	29 691
USED PLANT AND EQUIPMENT. . . . . DO. .	52 077	23 285	6 213	1 634	1 091	9 638	3 432	6 784
SELECTED OPERATING RATIOS:								
PAYROLL/TOTAL EMPLOYMENT. . . . .	6 865	7 327	6 179	6 719	6 235	6 553	5 951	6 985
PRODUCTION WORKERS/TOTAL EMPLOYMENT . . . . .	.82	.82	.86	.81	.73	.78	.84	.79
MAN-HOURS/PRODUCTION WORKERS. . . . .	1 994	1 935	2 040	2 039	2 098	2 081	2 051	2 051
PRODUCTION WORKER WAGES/MAN-HOURS . . . . .	3.23	3.58	2.84	3.11	2.54	2.92	2.65	3.18
COST OF MATERIALS AND PAYROLLS/TOTAL VALUE OF SHIPMENTS. . . . .	.79	.77	.77	.77	.88	.86	.80	.80
COST OF MATERIALS/TOTAL VALUE OF SHIPMENTS. . . . .	.57	.55	.38	.67	.79	.69	.47	.50
ADJUSTED VALUE ADDED/TOTAL EMPLOYMENT . . . . .	13 547	15 149	9 818	20 754	14 760	12 740	9 481	11 446
SALARIES AND WAGES/ADJUSTED VALUE ADDED . . . . .	.51	.48	.63	.32	.42	.51	.63	.61

Standard Notes: - Represents zero.

(D) Withheld to avoid disclosing figures for individual companies.

(NA) Not available.

(X) Not applicable.

<sup>1</sup>The value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry. For a more complete explanation, see Introduction.

## BLAST FURNACES, STEEL WORKS, AND ROLLING AND FINISHING MILLS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3312—Blast Furnaces (Including Coke Ovens), Steel Works, and Rolling Mills
- 3313—Electrometallurgical Products
- 3315—Steel Wire Drawing and Steel Nails and Spikes
- 3316—Cold Rolled Sheet, Strip, and Bars
- 3317—Steel Pipe and Tubes

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3312—BLAST FURNACES (INCLUDING COKE OVENS), STEEL WORKS, AND ROLLING MILLS

This industry comprises establishments primarily engaged in manufacturing hot metal, pig iron, silvery pig iron, and ferroalloys from iron ore and iron and steel scrap; converting pig iron, scrap iron, and scrap steel into steel; and in hot rolling iron and steel into basic shapes such as plates, sheets, strips, rods, bars, and tubing. Merchant blast furnaces and byproduct or beehive coke ovens are also included in this industry. For a detailed list of products of industry 3312, refer to table 6A, product codes 3312011 to 3312965.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Included in this industry are all establishments engaged in the manufacture of blast furnace ferroalloys. However, establishments which manufacture ferro or nonferrous additive alloys by electrometallurgical process are classified in industry 3313, Electrometallurgical Products. Also, establishments which draw wire from purchased rod and bar; establishments which perform only cold rolling, drawing, or finishing operations; and establishments which produce welded, seamless, and heavy riveted pipe from purchased materials are not included in industry 3312, but are included in industry 3315, Steel Wire Drawing, Etc.; industry 3316, Cold Finishing of Steel Shapes; and industry 3317, Steel Pipe and Tube, respectively.



Total cost of materials and the total value of shipments in industry 3312 include extensive duplication resulting from the use of the products of some establishments as materials by others. Some quantities of coke are transferred to blast furnaces which have no affiliated coke ovens, and considerable quantities of pig iron are transferred from blast furnaces to partially integrated mills. In addition, steel ingots, semifinished shapes, and finished shapes and forms are transferred from one establishment to another for further processing. The value of such shipments appears twice in the total value of shipments; and a corresponding duplication enters into the total cost of materials, etc. This duplication does not exist in the data on value added by manufacture.

As a means of developing a net value of shipments figure, the cost of steel shapes received by establishments in industry 3312 was collected as a separate materials consumed item, and, as shown in table 7A, totaled approximately \$1.68 billion. In addition, the cost of pig iron consumed in this industry totaled approximately \$0.38 billion. Also, the cost of coke used as a fuel in this industry totaled \$0.22 billion. On this basis, the value of materials shipped or transferred between plants within this industry totaled approximately \$2.28 billion. Subtracting this value from the total value of shipments of approximately \$16.61 billion gives a net value (excluding duplication) of \$14.33 billion. A similar adjustment to the total cost of materials, supplies, etc., figure provides a net cost figure of \$5,924 million. Adjusting the cost of fuels on this same basis provides a net cost of fuels of \$360 million.

As stated in the opening paragraph above, this industry includes a variety of operations ranging from coke ovens through steel producing facilities to fabricating activities. Accordingly, in order to provide a measure of the relative importance of these departments data were collected on man-hours worked and production worker wages paid for each of several departments. The resulting data are shown in table 9A.

Also, based on the data for these various departmental operations it was possible to further classify the establishments of this industry into four subindustries, i.e., fully integrated establishments, partially integrated establishments with blast furnaces, partially integrated establishments without blast furnaces, and nonintegrated establishments. For purposes of this classification system an establishment was defined as follows: fully integrated if the establishment consisted of coke ovens, blast furnaces, steel furnaces, and rolling and finishing mills; partially integrated establishment with blast furnaces if the establishment consisted of blast furnaces, steel furnaces, and rolling and finishing mills; partially integrated establishment without blast furnaces if the establishment consisted of steel furnaces and either rolling and finishing mills or a forging department; nonintegrated for all other establishments including beehive coke ovens, byproduct coke ovens operated independently of blast furnaces and steel departments, merchant blast furnaces and establishments with hot rolling and finishing operations.

In a few cases, operations which are in fact fully integrated are classified as partially integrated or nonintegrated because separate reports were collected either because the operations are conducted in different cities or counties, or the company treats the operations separately for their own administrative reasons.

The subindustry data shown in tables 1, 2, 3, 4, 5B, 7A, 8, and 9 are based on this system of classification.

The 1963 census obtained data on shipments of steel mill shapes at broad product class levels only. This is the source of the data in table 6A described "As reported in census of manufactures." More detailed product data were obtained on Annual Survey Form MA-33B, and published in Current Industrial Reports Series M33B, Steel Mill Products. These data are shown in tables 6A-2 and 6A-3.

Annual Survey Form MA-33B obtained data on the total production of steel at three broad levels of output: ingots; semifinished shapes and forms (blooms, billets, wire rods, skelp, etc.); and finished mill shapes and forms. For each of these groups, the steel mills were requested to report production in the form in which the shape (a) passed from one group to the next, (b) was shipped from the establishment, or (c) was consumed in the establishment in the manufacture of fabricated products. The production figures shown in tables 6A-2 and 6A-3 include data on production derived from this method of reporting. Production figures shown for ingots represent the total production of ingots. Production figures shown for finished shapes and forms are the tonnages of these shapes produced at the steel mill for shipments (either outside the steel industry, or to other steel mills) or for consumption in the manufacture of fabricated products. The production of all semifinished shapes and forms combined represent total production of semifinished shapes and forms for sale and transfer and also for use in the same plant in the manufacture of either other steel mill shapes or fabricated products.

Net shipments of steel products (as derived from Survey Form MA-33B) including both the shipments to establishments outside the steel industry and the amounts consumed in the steel mills in the production of fabricated products and for maintenance, repair, and operating supplies, are shown in table 6A-4.

The figures on steel mill shapes shown in tables 6A-1 to 6A-4 include the manufacture of these products in separate cold rolling and drawing establishments, wire drawing plants, and pipe mills as well as steel mills. The receipts of steel at these plants have been taken into account in deriving the net shipment figures shown in table 6A-4.

While the primary products of the industry include a broad range of products, the establishments tend to group themselves into specific product classes within the industry. The extent of this specialization is indicated in table 8. Approximately 32 percent in hot rolled bars and bar shapes, plates, structural shapes, and piling, and 27 percent of the total value added by manufacture are represented by plants specializing in hot rolled sheet and strip, including tin mill products.

Data on shipments of pig iron, by grade, are published by the Bureau of Mines in its Minerals Yearbook. These data are reprinted in table 6A-5 and differ from the data reported in the census in that they include the tonnages of pig iron produced and consumed in the same establishment. Other differences of minor consequence also exist.

The production index for the primary products of the industry increased to 118 in 1963 from the 1958 level of 95. The unit value index for 1963 was 120 compared to 123 in 1958. Both indexes were computed on a basis of 1954 = 100.

### 3313—ELECTROMETALLURGICAL PRODUCTS

This industry comprises establishments primarily engaged in manufacturing ferro and nonferrous additive alloys by electrometallurgical processes, including high percentage ferroalloys and high percentage nonferrous additive alloys. For a detailed list of products of industry 3313, refer to table 6A, product codes 3313111 to 3313498.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Electrometallurgical Products Industry totaled \$382 million. This amount included shipments of electrometallurgical products (primary products) valued at \$317 million.

This industry's shipments of electrometallurgical products represented 85 to 90 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent.



Shipments of electrometallurgical products by this industry represented 77 percent of all shipments of these products (\$412 million) by all industries. In 1958 the coverage ratio was 76 percent. Other industries shipping electrometallurgical products consisted mainly of industry 3312, Blast Furnaces and Steel Mills, \$69 million.

The production index for the primary products of the industry increased to 126 in 1963 from the 1958 level of 105. The unit value index for 1963 was 89 compared to 117 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3315—STEEL WIRE DRAWING AND STEEL NAILS AND SPIKES

This industry comprises establishments primarily engaged in drawing wire from purchased iron or steel rods, bars, or wire and which may be engaged in the further manufacture of products made from wire; and those primarily engaged in manufacturing steel nails and spikes from purchased material. Rolling mills engaged in the production of ferrous wire from wire rods or hot rolled bars produced in the same establishment are classified in industry 3312. Establishments primarily engaged in drawing nonferrous wire are classified in Group 335. For a detailed list of products of industry 3315, refer to table 6A, product codes 3315111 to 3315998.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Steel Wire Drawing, Etc., Industry totaled \$592 million. This amount included shipments of steel wire and fabricated wire products (primary products) valued at \$509 million, shipments of other products (secondary products) valued at \$62 million, and miscellaneous receipts at \$22 million.

This industry's shipments of steel wire and fabricated wire products represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was 88 percent.

Shipments of steel wire and fabricated wire products by this industry represented 30 percent of all shipments of these products (\$1,672 million) by all industries. In 1958 the coverage ratio was 26 percent. Other industries shipping steel wire and fabricated wire products consisted mainly of industry 3312, Blast Furnaces and Steel Mills, \$626 million; and industry 3481, Fabricated Wire Products, N.E.C., \$463 million.

The production index for the primary products of the industry increased to 99 in 1963 from the 1958 level of 94. The unit value index for 1963 was 123 compared to 122 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3316—COLD ROLLED SHEET, STRIP, AND BARS

This industry comprises establishments primarily engaged in (1) cold rolling steel sheets and strip from purchased hot rolled sheets; (2) cold drawing steel bars and steel shapes from purchased hot rolled steel bars; and (3) producing other cold finished steel. Establishments primarily engaged in the production of steel, including hot rolled steel sheets, and further cold rolling such sheets are classified in industry 3312. For a detailed list of products of industry 3316, refer to table 6A, product codes 3316701 to 3316801.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Cold Finishing of Steel Shapes Industry totaled \$752 million. This amount included shipments of cold rolled sheet, strip, and bars (primary products) valued at \$661 million, shipments of other products (secondary products) valued at \$43 million, and miscellaneous receipts (mainly resales) at \$47 million.

This industry's shipments of cold rolled sheet, strip, and bars represented 94 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 63 percent of the total industry shipments are represented by plants specializing in product class 33167, Cold rolled sheet and strip.

Shipments of cold rolled sheet, strip, and bars by this industry represented 20 percent of all shipments of these products (\$3,333 million) by all industries. In 1958 the coverage ratio was 18 percent. Other industries shipping cold rolled sheet, strip, and bars consisted mainly of industry 3312, Blast Furnaces and Steel Mills, \$2,647 million.

The production index for the primary products of the industry increased to 138 in 1963 from the 1958 level of 103. The unit value index for 1963 was 126 compared to 125 in 1958. Both indexes were computed on a basis of 1954 = 100.

### 3317—STEEL PIPE AND TUBES

This industry comprises establishments primarily engaged in the production of welded or seamless steel pipe and tubes and heavy riveted steel pipe from purchased materials. Establishments primarily engaged in the production of steel, including steel skelp or steel blanks, tube rounds, or pierced billets are classified in industry 3312.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Steel Pipe and Tube Industry totaled \$809 million. This amount included shipments of steel pipe and tube (primary products) valued at \$707 million, shipments of other products (secondary products) valued at \$73 million, and miscellaneous receipts (mainly resales) at \$28 million.

This industry's shipments of steel pipe and tube represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 92 percent.

Shipments of steel pipe and tube by this industry represented 37 percent of all shipments of these products (\$1,887 million) by all industries. In 1958 the coverage ratio was 40 percent. Other industries shipping steel pipe and tube consisted mainly of industry 3312, Blast Furnaces and Steel Mills, \$1,137 million.

The production index for the primary products of the industry increased to 99 in 1963 from the 1958 level of 90. The unit value index for 1963 was 120 compared to 127 in 1958. Both indexes were computed on a basis of 1954 = 100.



# STEEL ROLLING AND FINISHING: SIC 331 Value Added by Manufacture by State: 1963

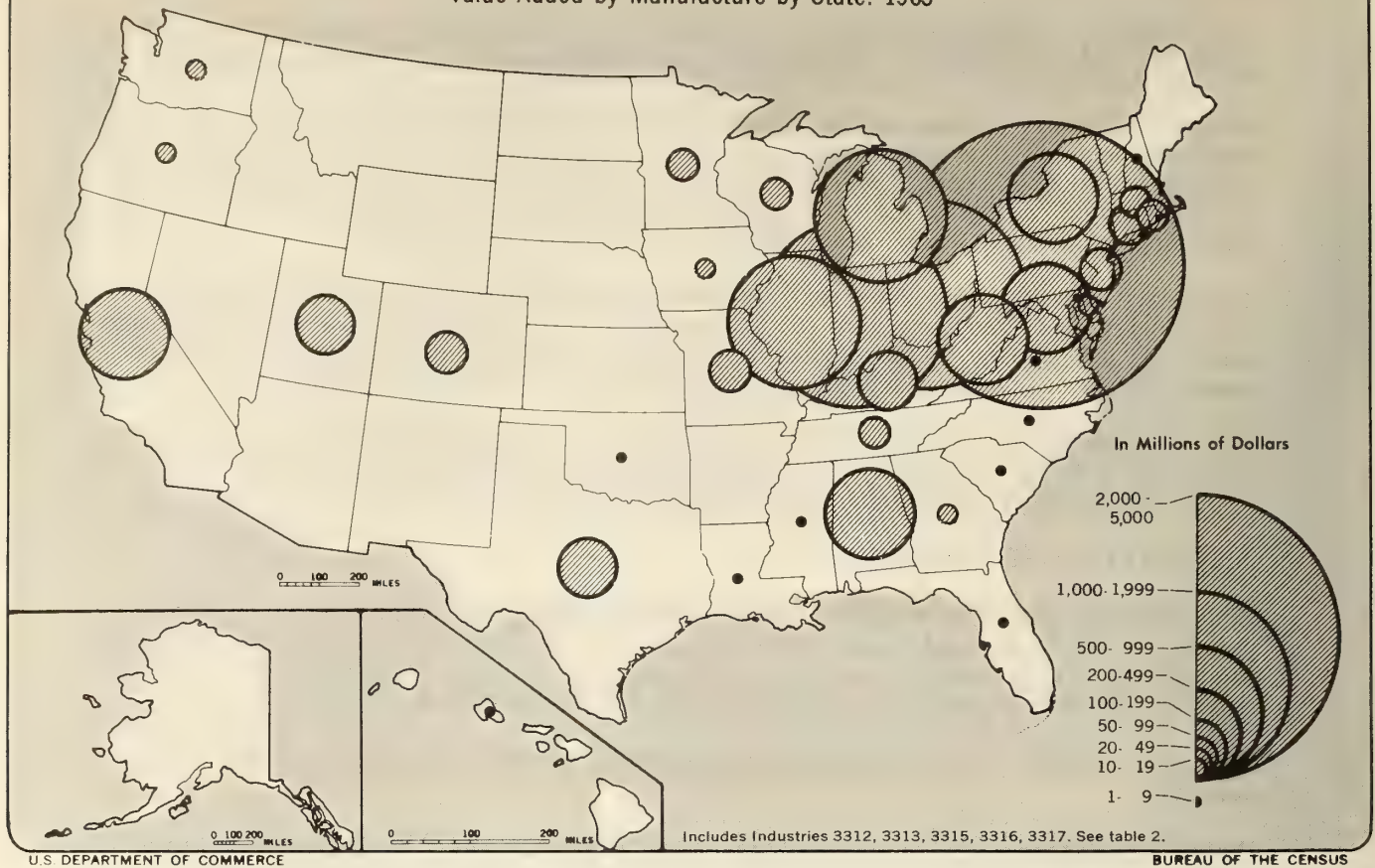


TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new <sup>1</sup> (\$1,000)	Spec- ializa- tion ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3312.—BLAST FURNACES AND STEEL MILLS														
1963.....	161	288	247	500,550	3,711,639	412,311	791,364	2,892,006	7,699,535	<sup>2</sup> 8,958,663	<sup>2</sup> 16,611,083	908,440	(NA)	(NA)
1962 <sup>3</sup> .....	(NA)	(NA)	(NA)	502,202	3,612,064	406,627	764,643	2,753,197	6,620,897	<sup>2</sup> 8,698,774	<sup>2</sup> 15,571,583	707,767	(NA)	(NA)
1961 <sup>3</sup> .....	(NA)	(NA)	(NA)	503,417	3,523,170	409,098	767,626	2,670,185	6,546,304	<sup>2</sup> 8,529,911	<sup>2</sup> 14,873,318	805,462	(NA)	(NA)
1960 <sup>3</sup> .....	(NA)	(NA)	(NA)	549,956	3,629,384	449,616	831,797	2,777,234	6,844,374	<sup>2</sup> 8,917,313	<sup>2</sup> 15,738,776	1,190,707	(NA)	(NA)
1959 <sup>3</sup> .....	(NA)	(NA)	(NA)	507,540	3,448,374	419,385	776,515	2,636,672	6,823,398	<sup>2</sup> 8,533,145	<sup>2</sup> 15,628,664	669,266	(NA)	(NA)
1958.....	148	291	260	511,392	3,183,483	417,216	765,941	2,415,959	6,062,227	<sup>2</sup> 7,472,015	<sup>2</sup> 13,422,585	959,033	(NA)	(NA)
1957 <sup>3</sup> .....	(NA)	(NA)	(NA)	616,792	3,645,252	513,039	990,837	2,886,108	7,204,822	<sup>2</sup> 10,553,000	<sup>2</sup> 17,614,000	1,423,609	(NA)	(NA)
1956 <sup>3</sup> .....	(NA)	(NA)	(NA)	644,499	3,475,508	545,534	1,042,231	2,806,705	7,135,612	<sup>2</sup> 10,515,000	<sup>2</sup> 17,523,000	1,098,027	(NA)	(NA)
1955 <sup>3</sup> .....	(NA)	(NA)	(NA)	621,540	3,269,732	527,524	1,059,870	2,659,921	6,773,325	<sup>2</sup> 9,558,000	<sup>2</sup> 16,345,000	572,177	(NA)	(NA)
1954.....	(NA)	(NA)	(NA)	553,850	2,581,270	470,823	883,057	2,059,515	5,055,409	(NA)	(NA)	580,530	(NA)	(NA)
1947.....	(NA)	(NA)	(NA)	568,915	1,804,157	499,709	1,006,733	1,516,321	2,844,595	(NA)	(NA)	(NA)	(NA)	(NA)
1939.....	(NA)	(NA)	(NA)	460,128	749,129	410,134	(NA)	630,517	1,320,392	(NA)	(NA)	(NA)	(NA)	(NA)
1937 <sup>5</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	481,721	(NA)	788,529	1,588,359	(NA)	(NA)	(NA)	(NA)	(NA)
1929 <sup>5</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	400,389	(NA)	697,904	1,615,306	(NA)	(NA)	(NA)	(NA)	(NA)
1963.....	161	288	247	500,550	3,711,639	412,311	791,364	2,892,006	7,699,535	<sup>2</sup> 8,958,663	<sup>2</sup> 16,611,083	908,440	(NA)	(NA)
Fully inte- grated works <sup>6</sup>	(NA)	34	34	268,642	2,001,950	221,899	425,369	1,573,019	4,426,518	<sup>2</sup> 3,786,183	<sup>2</sup> 8,192,193	431,448	(NA)	(NA)
Partially integrated works: With blast furnaces...	(NA)	12	12	53,262	394,522	44,944	84,406	314,388	847,471	<sup>2</sup> 975,965	<sup>2</sup> 1,804,266	219,478	(NA)	(NA)
Without blast furnaces...	(NA)	80	80	112,025	839,299	90,704	177,857	637,170	1,574,020	<sup>2</sup> 1,821,510	<sup>2</sup> 3,380,122	101,300	(NA)	(NA)
Nonintegrated works <sup>6</sup> .....	(NA)	162	121	66,621	475,868	54,764	103,732	367,429	851,526	<sup>2</sup> 2,375,005	<sup>2</sup> 3,234,502	156,214	(NA)	(NA)
1958.....	148	291	260	511,392	3,183,483	417,216	765,941	2,415,959	6,062,227	7,472,015	13,422,585	959,033	(NA)	(NA)
Fully inte- grated works <sup>6</sup>	(NA)	37	37	272,859	1,692,810	255,585	414,645	1,312,044	3,410,478	(NA)	(NA)	446,185	(NA)	(NA)
Partially integrated works <sup>6</sup> .....	(NA)	93	93	164,274	1,029,942	131,806	241,046	759,276	1,768,571	(NA)	(NA)	386,134	(NA)	(NA)
Nonintegrated works <sup>6</sup> .....	(NA)	161	130	74,259	460,731	59,825	110,250	344,639	883,178	(NA)	(NA)	117,737	(NA)	(NA)
INDUSTRY 3313.—ELECTROMETALLURGICAL PRODUCTS														
1963.....	20	36	30	10,437	68,880	8,155	16,563	50,767	145,503	227,977	382,132	13,412	85-90	77
1962 <sup>3</sup> .....	(NA)	(NA)	(NA)	10,954	72,450	8,345	17,488	51,516	160,897	231,519	386,440	15,891	(NA)	(NA)
1961 <sup>3</sup> .....	(NA)	(NA)	(NA)	11,075	70,257	8,423	16,955	48,998	146,885	231,636	399,563	8,971	(NA)	(NA)
1960 <sup>3</sup> .....	(NA)	(NA)	(NA)	12,544	76,062	9,305	18,378	52,479	145,278	242,395	380,726	17,185	(NA)	(NA)
1959 <sup>3</sup> .....	(NA)	(NA)	(NA)	13,337	80,081	10,081	20,429	55,977	184,610	266,057	456,846	14,335	(NA)	(NA)
1958.....	19	37	35	12,689	71,883	9,304	18,961	48,988	178,880	221,509	399,122	16,969	91	76
1957 <sup>3</sup> .....	(NA)	(NA)	(NA)	15,491	83,256	12,053	24,249	59,598	208,264	280,824	480,085	22,315	(NA)	(NA)
1956 <sup>3</sup> .....	(NA)	(NA)	(NA)	16,081	80,822	13,086	26,617	61,059	213,639	298,676	491,681	24,724	(NA)	(NA)
1955 <sup>3</sup> .....	(NA)	(NA)	(NA)	14,161	66,302	11,626	23,443	50,306	176,422	227,935	417,933	24,495	(NA)	(NA)
1954.....	17	31	29	11,361	51,332	8,834	17,614	36,895	118,785	157,957	272,751	22,313	92	68
1953 <sup>3</sup> .....	(NA)	(NA)	(NA)	15,570	65,621	12,965	(NA)	51,476	145,209	255,948	401,157	(NA)	(NA)	(NA)
1952 <sup>3</sup> .....	(NA)	(NA)	(NA)	12,968	52,991	10,821	(NA)	41,496	107,452	204,965	312,417	(NA)	(NA)	(NA)
1951 <sup>3</sup> .....	(NA)	(NA)	(NA)	12,081	49,124	10,874	(NA)	39,338	124,990	182,317	307,307	(NA)	(NA)	(NA)
1950 <sup>3</sup> .....	(NA)	(NA)	(NA)	10,304	37,567	8,627	(NA)	28,699	115,885	126,275	242,160	(NA)	(NA)	(NA)
1949 <sup>3</sup> .....	(NA)	(NA)	(NA)	8,702	29,731	7,168	(NA)	22,630	67,305	86,831	154,136	(NA)	(NA)	(NA)
1947.....	10	19	(NA)	9,628	29,285	8,175	16,678	23,449	55,493	95,411	150,904	(NA)	88	(NA)
1939 <sup>7</sup> .....	(NA)	18	(NA)	(NA)	(NA)	2,774	(NA)	4,234	15,868	25,119	40,987	(NA)	(NA)	(NA)
INDUSTRY 3315.—STEEL WIRE DRAWING, ETC.														
1963.....	171	200	133	21,280	134,636	16,904	34,367	97,055	253,009	336,651	592,263	14,002	89	30
1962 <sup>3</sup> .....	(NA)	(NA)	(NA)	19,826	126,454	15,491	30,847	90,625	224,688	296,143	517,215	14,895	(NA)	(NA)
1961 <sup>3</sup> .....	(NA)	(NA)	(NA)	19,801	121,928	15,483	30,720	87,270	221,342	282,990	500,339	12,438	(NA)	(NA)
1960 <sup>3</sup> .....	(NA)	(NA)	(NA)	20,566	122,066	16,725	31,950	86,932	218,466	284,722	498,326	12,778	(NA)	(NA)
1959 <sup>3</sup> .....	(NA)	(NA)	(NA)	20,969	124,953	16,770	32,616	90,079	234,353	304,202	536,165	11,295	(NA)	(NA)
1958 <sup>8</sup> .....	151	170	103	19,250	110,184	15,129	29,147	78,432	196,200	260,490	452,062	11,980	88	26
INDUSTRY 3316.—COLD FINISHING OF STEEL SHAPES														
1963.....	59	81	68	13,700	99,557	10,623	21,833	71,527	223,977	529,954	751,627	14,925	94	20
1962 <sup>3</sup> .....	(NA)	(NA)	(NA)	12,029	87,550	9,344	19,277	75,787	194,154	495,763	690,238	(13,988)	(NA)	(NA)
1961 <sup>3</sup> .....	(NA)	(NA)	(NA)	11,393	79,582	8,808	17,688	58,414	158,079	439,845	597,614	12,754	(NA)	(NA)
1960 <sup>3</sup> .....	(NA)	(NA)	(NA)	12,439	83,171	9,754	19,254	62,167	173,492	472,189	634,937	13,095	(NA)	(NA)
1959 <sup>3</sup> .....	(NA)	(NA)	(NA)	12,058	82,176	9,387	18,616	58,567	191,192	451,646	645,646	10,211	(NA)	(NA)
1958 <sup>4</sup> .....	58	78	63	10,943	67,084	8,528	16,039	47,225	141,516	338,495	477,824	25,706	95	18
1954 <sup>7</sup> .....	(NA)	75	(NA)	10,685	51,600	8,535	16,919	37,603	(NA)	(NA)	(NA)	7,498	(NA)	(NA)

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new <sup>1</sup>  (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3317.—STEEL PIPE AND TUBE														
1963.....	114	141	115	22,882	153,147	18,270	37,862	113,656	295,242	517,291	809,009	23,588	91	37
1962 <sup>3</sup> .....	(NA)	(NA)	(NA)	25,003	163,488	19,543	38,973	116,198	311,083	582,398	907,486	26,027	(NA)	(NA)
1961 <sup>3</sup> .....	(NA)	(NA)	(NA)	24,759	156,369	19,644	38,553	112,393	290,303	548,363	825,563	25,784	(NA)	(NA)
1960 <sup>3</sup> .....	(NA)	(NA)	(NA)	26,210	160,020	20,858	40,567	114,681	322,227	588,419	886,859	22,347	(NA)	(NA)
1959 <sup>3</sup> .....	(NA)	(NA)	(NA)	25,568	161,769	20,403	40,833	117,113	366,398	625,822	981,452	18,389	(NA)	(NA)
1958.....	112	136	101	23,911	138,144	19,402	37,988	103,848	284,096	496,141	780,684	15,133	92	40
1957 <sup>3</sup> 4.....	(NA)	(NA)	(NA)	26,391	150,712	21,780	44,342	115,829	302,690	524,849	815,857	22,555	88	26
1956 <sup>3</sup> .....	(NA)	(NA)	(NA)	25,719	140,865	21,346	44,599	109,436	293,155	477,406	764,890	15,898	(NA)	(NA)
1955 <sup>3</sup> .....	(NA)	(NA)	(NA)	23,897	125,572	20,078	42,560	98,421	263,817	410,151	661,699	15,549	(NA)	(NA)
1954.....	78	88	69	22,085	108,374	18,388	37,473	83,472	207,643	330,309	535,772	9,134	91	30
1953 <sup>3</sup> .....	(NA)	(NA)	(NA)	26,535	133,624	22,170	45,768	103,210	238,306	374,726	613,032	(NA)	(NA)	(NA)
1952 <sup>3</sup> .....	(NA)	(NA)	(NA)	17,731	78,194	15,334	29,814	62,823	155,247	263,406	418,653	(NA)	(NA)	(NA)
1951 <sup>3</sup> .....	(NA)	(NA)	(NA)	19,524	81,554	16,983	33,867	65,964	189,327	308,454	497,781	(NA)	(NA)	(NA)
1950 <sup>3</sup> .....	(NA)	(NA)	(NA)	19,274	79,213	16,633	33,822	60,418	168,433	300,798	469,231	(NA)	(NA)	(NA)
1949 <sup>3</sup> .....	(NA)	(NA)	(NA)	18,323	71,015	15,580	30,640	54,273	138,712	235,857	374,569	(NA)	(NA)	(NA)
1947.....	(NA)	52	(NA)	15,711	52,651	13,517	(NA)	41,225	100,356	143,858	244,214	(NA)	(NA)	(NA)
1939.....	(NA)	49	(NA)	9,670	15,794	8,370	(NA)	12,306	34,008	41,857	75,865	(NA)	(NA)	(NA)
1937.....	(NA)	53	(NA)	15,267	22,690	14,125	(NA)	19,436	45,140	68,629	113,769	(NA)	(NA)	(NA)
1935.....	(NA)	48	(NA)	11,790	14,731	10,720	(NA)	11,793	31,564	42,285	73,849	(NA)	(NA)	(NA)
1933.....	(NA)	44	(NA)	7,269	6,890	6,552	(NA)	5,580	14,136	20,821	34,957	(NA)	(NA)	(NA)
1931.....	(NA)	51	(NA)	(NA)	(NA)	8,045	(NA)	9,890	32,750	42,291	75,041	(NA)	(NA)	(NA)
1929.....	(NA)	50	(NA)	12,836	23,157	11,417	(NA)	18,762	54,538	70,121	124,659	(NA)	(NA)	(NA)
1927.....	(NA)	44	(NA)	12,194	19,580	11,083	(NA)	16,066	42,407	55,779	98,186	(NA)	(NA)	(NA)
1925.....	(NA)	42	(NA)	12,042	20,615	10,871	(NA)	17,157	35,554	59,142	94,696	(NA)	(NA)	(NA)
1923.....	(NA)	53	(NA)	11,713	20,670	10,633	(NA)	17,705	32,857	57,966	90,823	(NA)	(NA)	(NA)
1921.....	(NA)	57	(NA)	9,814	13,746	8,728	(NA)	11,234	19,569	37,093	56,662	(NA)	(NA)	(NA)
1919.....	(NA)	50	(NA)	11,770	17,775	10,426	(NA)	14,920	30,713	51,156	81,869	(NA)	(NA)	(NA)
1914.....	(NA)	36	(NA)	9,680	6,995	8,845	(NA)	5,750	11,359	26,296	37,655	(NA)	(NA)	(NA)
1909.....	(NA)	28	(NA)	7,292	4,620	6,817	(NA)	3,963	7,944	22,942	30,886	(NA)	(NA)	(NA)
1904.....	(NA)	27	(NA)	5,712	2,841	5,416	(NA)	2,473	4,654	12,747	17,401	(NA)	(NA)	(NA)
1899.....	(NA)	19	(NA)	5,729	2,672	5,536	(NA)	2,496	5,768	15,524	21,292	(NA)	(NA)	(NA)
INDUSTRY 3312 and 3323.—BLAST FURNACES, STEEL MILLS AND STEEL FOUNDRIES <sup>5</sup>														
1963.....	(NA)	555	467	107,360	4,073,007	459,939	886,470	3,172,439	8,055,658	29,247,458	217,289,029	936,272	(NA)	(NA)
1962 <sup>3</sup> .....	(NA)	(NA)	(NA)	552,708	3,915,264	451,831	848,416	2,989,180	7,105,149	28,948,456	216,301,271	731,336	(NA)	(NA)
1961 <sup>3</sup> .....	(NA)	(NA)	(NA)	550,227	3,793,024	450,750	842,040	2,874,596	6,957,113	28,754,959	215,502,963	828,321	(NA)	(NA)
1960 <sup>3</sup> .....	(NA)	(NA)	(NA)	600,763	3,917,457	494,839	913,613	2,996,987	7,283,473	29,166,023	216,439,264	1,210,018	(NA)	(NA)
1959 <sup>3</sup> .....	(NA)	(NA)	(NA)	561,569	3,749,324	470,929	865,515	2,868,055	7,312,642	28,789,879	216,367,837	694,524	(NA)	(NA)
1958.....	(NA)	547	476	560,525	3,437,821	457,350	840,331	2,602,737	6,446,097	27,575,698	214,018,861	981,272	(NA)	(NA)
1957 <sup>3</sup> 4.....	(NA)	(NA)	(NA)	684,278	4,003,083	570,114	1,104,445	3,160,198	7,775,474	(2)	(2)	1,459,644	(NA)	(NA)
1956 <sup>3</sup> .....	(NA)	(NA)	(NA)	714,911	3,840,603	605,839	1,167,013	3,095,422	7,729,715	(2)	(2)	1,129,794	(NA)	(NA)
1955 <sup>3</sup> .....	(NA)	(NA)	(NA)	681,804	3,557,455	578,300	1,162,596	2,881,419	7,213,905	(2)	(2)	592,555	(NA)	(NA)
1954.....	(NA)	(NA)	(NA)	608,923	2,823,575	516,478	968,741	2,238,876	5,361,095	(2)	(2)	596,956	(NA)	(NA)
1947.....	(NA)	(NA)	(NA)	631,250	1,990,818	553,916	(NA)	1,667,357	3,107,530	(2)	(2)	(NA)	(NA)	(NA)
1939.....	(NA)	(NA)	(NA)	495,695	804,544	440,222	(NA)	672,459	1,410,626	(2)	(2)	(NA)	(NA)	(NA)
1937.....	(NA)	(NA)	(NA)	(NA)	(NA)	523,020	(NA)	850,880	1,708,791	(2)	(2)	(NA)	(NA)	(NA)
1935.....	(NA)	(NA)	(NA)	424,574	561,393	391,502	(NA)	480,160	951,827	(2)	(2)	(NA)	(NA)	(NA)
1933.....	(NA)	(NA)	(NA)	327,907	336,550	302,011	(NA)	285,894	523,984	(2)	(2)	(NA)	(NA)	(NA)
1931.....	(NA)	(NA)	(NA)	(NA)	(NA)	292,589	(NA)	379,780	686,914	(2)	(2)	(NA)	(NA)	(NA)
1929.....	(NA)	(NA)	(NA)	482,390	882,094	440,086	(NA)	764,363	1,757,593	(2)	(2)	(NA)	(NA)	(NA)
1927.....	(NA)	(NA)	(NA)	451,654	791,437	410,352	(NA)	679,701	1,314,818	(2)	(2)	(NA)	(NA)	(NA)
1925.....	(NA)	(NA)	(NA)	464,552	801,794	423,105	(NA)	697,059	1,382,859	(2)	(2)	(NA)	(NA)	(NA)
1923.....	(NA)	(NA)	(NA)	501,573	865,023	453,277	(NA)	744,868	1,452,803	(2)	(2)	(NA)	(NA)	(NA)
1921.....	(NA)	(NA)	(NA)	304,585	486,571	270,283	(NA)	378,190	587,777	(2)	(2)	(NA)	(NA)	(NA)
1919.....	(NA)	(NA)	(NA)	503,408	877,839	447,703	(NA)	756,382	1,420,937	(2)	(2)	(NA)	(NA)	(NA)
1914.....	(NA)	(NA)	(NA)	330,716	271,499	299,179	(NA)	225,212	411,050	(2)	(2)	(NA)	(NA)	(NA)
1909.....	(NA)	(NA)	(NA)	334,853	238,049	307,778	(NA)	203,262	430,685	(2)	(2)	(NA)	(NA)	(NA)
1904.....	(NA)	(NA)	(NA)	279,568	127,728	261,621	(NA)	150,731	307,486	(2)	(2)	(NA)	(NA)	(NA)
1899.....	(NA)	(NA)	(NA)	249,615	140,441	239,489	(NA)	127,906	297,489	(2)	(2)	(NA)	(NA)	(NA)

See footnotes on next page.

TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Footnotes for table 1-33A

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>Includes expenditures for plants under construction but not in operation. This information was not collected in 1939 and 1947 and is not available by 4-digit industry for 1954.

<sup>2</sup>The value of shipments and cost of materials for this industry includes extensive duplication arising from shipments between establishments in the same industry classification. For further explanation see text.

<sup>3</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>4</sup>Data for Alaska and Hawaii are excluded for 1957 and earlier years.

<sup>5</sup>Prior to 1939 "Steel works and rolling mills" and "Steel foundries" constituted a single industry. Separate figures for these two industries were obtained for 1937 and 1929 from special tabulations of the returns for those years. Separate data for subsequent years have been combined in order that statistics may be shown for other years. Data for "Steel foundries" for 1963 are shown in MC63(2)-33B, Iron and Steel Foundries.

<sup>6</sup>Definitions are as follows: Fully integrated works are establishments having coke ovens, blast furnaces, steel works, and rolling and finishing mills or a forging department; partially integrated works with blast furnaces are establishments having blast furnaces, steel works, and rolling and finishing mills or a forging department; partially integrated works without blast furnaces are establishments having steel works, and rolling and finishing mills or a forging department; nonintegrated works represent all other types of establishments in this industry including beehive coke ovens, byproduct coke ovens operated independently of blast furnaces and steel departments; merchant blast furnaces, and establishments with hot-rolling and finishing operations. In a few cases, operations which are, in fact, fully integrated, are classified as partially integrated or nonintegrated because separate establishment reports were collected either because the operations are conducted in different cities or towns, or the company treats the operations separately for their own administrative reasons.

<sup>7</sup>No comparable data are available for earlier years.

<sup>8</sup>A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so that comparable data for prior year are not available.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials <sup>2</sup>	Value of shipments <sup>2</sup>	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3312.—BLAST FURNACES AND STEEL MILLS													
Total.....	288	247	500,550	3,711,639	412,311	791,364	2,892,006	7,699,535	8,958,663	16,611,083	908,440	511,392	6,062,227
New England.....	6	5	2,719	19,802	2,082	4,023	14,216	33,729	37,414	74,698	1,449	3,784	29,920
Middle Atlantic....	105	93	180,445	1,299,531	146,682	279,582	1,000,325	2,437,451	3,142,680	5,565,254	214,582	194,521	2,043,799
New York.....	19	18	27,417	198,784	22,589	43,789	156,613	395,415	349,247	734,768	24,397	27,279	301,593
New Jersey.....	4	4	2,752	19,276	2,015	4,009	13,779	31,947	29,966	61,487	1,419	3,316	37,758
Pennsylvania.....	82	71	150,276	1,081,471	122,078	231,784	829,933	2,010,089	2,763,467	4,768,999	188,766	163,926	1,704,448
North Central.....	89	76	206,932	1,581,488	173,192	335,552	1,249,946	3,382,528	4,297,059	7,665,771	489,350	202,654	2,497,233
Ohio.....	35	32	79,558	586,690	68,535	130,482	479,740	1,268,778	1,669,115	2,927,652	153,003	82,748	979,211
Indiana.....	12	10	57,010	438,878	46,777	91,718	343,077	1,019,338	1,140,592	2,131,131	203,807	56,338	765,896
Illinois.....	21	19	41,569	321,539	34,217	66,602	247,363	547,175	702,564	1,246,602	45,911	38,345	442,602
Michigan.....	11	8	21,288	178,322	17,799	35,640	140,421	433,560	707,554	1,135,160	83,569	17,347	219,511
South.....	61	53	82,010	593,422	67,303	128,574	464,484	1,401,062	1,077,608	2,462,033	167,193	81,009	1,077,359
Virginia.....	13	10	644	3,646	587	1,309	3,112	7,451	9,358	16,904	588	(3)	(3)
Kentucky.....	5	5	6,415	47,541	5,406	10,612	38,074	100,329	110,084	208,599	(D)	(3)	(3)
Tennessee.....	5	5	1,367	5,635	1,192	2,241	4,825	10,323	9,209	20,250	251	(3)	(3)
West.....	27	20	28,444	217,396	23,052	43,633	163,035	444,765	403,902	843,327	35,866	29,424	413,916
California.....	17	12	15,834	122,450	12,966	24,509	92,511	228,249	240,166	469,173	28,276	15,605	225,725
Subindustry 3312-11.—Blast Furnaces and Steel Mills—FULLY INTEGRATED WORKS <sup>4</sup>													
Total.....	34	34	268,642	2,001,950	221,899	425,369	1,573,019	4,426,518	3,786,183	8,192,193	431,448	272,859	3,410,478
Middle Atlantic....	10	10	83,021	596,929	67,725	127,685	462,351	1,203,315	1,106,917	2,308,508	101,481	(NA)	(NA)
North Central.....	15	15	107,818	826,939	90,953	177,771	663,966	1,832,591	1,737,531	3,567,082	230,944	(NA)	(NA)
Ohio.....	7	7	40,025	295,312	34,670	66,061	244,678	618,683	741,023	1,348,607	41,095	(NA)	(NA)
Indiana.....	3	3	45,287	345,271	37,316	73,271	270,422	850,702	662,671	1,519,501	134,307	(NA)	(NA)
South.....	6	6	59,913	440,467	48,642	92,073	343,627	1,104,683	708,408	1,801,359	81,149	(NA)	(NA)
West.....	3	3	17,890	137,615	14,579	27,840	103,075	285,929	233,327	515,244	17,874	(NA)	(NA)
Subindustry 3312-12.—Blast Furnaces and Steel Mills—PARTIALLY INTEGRATED WORKS WITH BLAST FURNACES <sup>4</sup>													
Total.....	12	12	53,262	394,522	44,944	84,406	314,388	847,471	975,965	1,804,266	219,478	(NA)	(NA)
Middle Atlantic....	5	5	17,900	130,516	15,178	28,529	105,469	251,220	315,562	559,009	53,078	(NA)	(NA)
North Central and South.....	7	7	35,362	264,006	29,766	55,877	208,919	596,251	660,403	1,245,257	166,400	(NA)	(NA)
Ohio.....	4	4	19,158	139,981	16,108	30,622	113,227	317,031	289,027	602,841	77,357	(NA)	(NA)
Subindustry 3312-13.—Blast Furnaces and Steel Mills—PARTIALLY INTEGRATED WORKS WITHOUT BLAST FURNACES <sup>4</sup>													
Total.....	80	80	112,025	839,299	90,704	177,857	637,170	1,574,020	1,821,510	3,380,122	101,300	(NA)	(NA)
Northeast.....	34	34	54,026	395,780	43,235	85,308	300,128	685,065	831,092	1,505,449	37,810	(NA)	(NA)
New York.....	5	5	6,588	48,420	5,186	10,862	37,642	77,044	65,417	137,974	2,481	(NA)	(NA)
Pennsylvania.....	26	26	44,554	324,923	35,815	69,684	245,685	560,064	739,679	1,294,644	33,499	(NA)	(NA)
North Central and South.....	35	35	48,597	371,474	39,924	78,465	282,773	744,379	839,808	1,580,477	46,019	(NA)	(NA)
Ohio.....	4	4	8,295	62,368	7,422	14,455	49,955	171,501	148,173	325,592	12,957	(NA)	(NA)
Illinois.....	7	7	13,434	106,611	10,669	21,202	79,849	195,043	168,539	357,752	16,489	(NA)	(NA)
Pacific.....	11	11	9,402	72,045	7,545	14,084	54,269	144,576	150,610	294,196	17,471	(NA)	(NA)
Subindustry 3312-14.—Blast Furnaces and Steel Mills—NONINTEGRATED WORKS <sup>4</sup>													
Total.....	162	121	66,621	475,868	54,764	103,732	367,429	851,526	2,375,005	3,234,502	156,214	74,259	883,178
Northeast.....	62	49	28,217	196,108	22,626	42,083	146,593	331,580	926,523	1,266,986	23,662	(NA)	(NA)
Pennsylvania.....	44	33	23,741	166,199	19,221	35,842	125,901	282,092	832,215	1,119,997	22,027	(NA)	(NA)
North Central.....	51	38	28,822	221,220	23,775	46,016	172,423	404,496	1,263,008	1,667,785	128,871	(NA)	(NA)
Ohio.....	20	17	12,080	89,029	10,335	19,344	71,880	161,563	490,892	650,612	21,594	(NA)	(NA)
Illinois.....	10	8	4,297	32,042	3,575	7,176	25,762	71,630	137,611	209,628	5,689	(NA)	(NA)
South.....	36	28	8,430	50,804	7,435	13,924	42,722	101,190	165,509	265,844	3,160	(NA)	(NA)
West.....	13	6	1,152	7,736	928	1,709	5,691	14,260	19,965	33,887	521	(NA)	(NA)

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials <sup>2</sup>	Value of shipments <sup>2</sup>	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3313.—ELECTROMETALLURGICAL PRODUCTS													
Total.....	36	30	10,437	68,880	8,155	16,563	50,767	145,503	227,977	382,132	13,412	12,689	178,880
Middle Atlantic....	5	4	1,732	11,972	1,185	2,512	7,548	24,156	28,427	51,428	1,419	2,986	33,569
North Central.....	14	12	4,283	28,595	3,304	6,553	20,655	65,698	100,012	168,741	7,092	4,084	60,438
Ohio.....	8	8	3,736	25,168	2,885	5,718	18,406	52,584	84,200	143,835	5,524	3,578	53,470
South.....	10	10	3,786	23,909	3,133	6,402	19,057	49,424	83,629	137,050	4,415	4,474	58,898
West.....	7	4	636	4,404	533	1,096	3,507	6,225	15,909	24,913	495	1,145	25,975
INDUSTRY 3315.—STEEL WIRE DRAWING, ETC.													
Total.....	200	133	21,280	134,636	16,904	34,367	97,055	253,009	336,651	592,263	14,002	19,250	196,200
Northeast.....	88	55	9,807	62,994	7,782	15,213	45,221	110,301	113,196	221,681	6,098	9,625	86,999
Massachusetts....	21	17	2,909	19,724	2,352	4,655	15,103	28,647	30,281	58,562	719	3,260	28,073
New York.....	20	8	989	5,416	834	1,716	3,941	9,414	10,811	20,084	455	431	3,328
New Jersey.....	18	9	1,394	9,064	1,050	1,987	5,954	18,950	20,992	40,020	716	( <sup>3</sup> )	( <sup>3</sup> )
East North Central.	60	44	8,273	53,637	6,519	13,722	38,584	106,161	163,385	271,734	(D)	7,332	81,045
Ohio.....	16	13	1,474	8,606	1,216	2,596	6,518	22,010	27,385	49,247	1,060	939	10,725
Illinois.....	32	22	4,764	30,064	3,787	7,905	21,905	47,531	98,422	149,277	2,141	4,362	45,951
West North Central.	4	3	350	1,947	279	580	1,395	4,193	2,870	7,383	(D)	1,288	16,273
South Atlantic....	15	13	813	4,321	707	1,507	3,351	10,804	18,531	29,904	955	1,005	11,883
Maryland.....	5	4	351	1,958	310	671	1,497	5,199	7,368	12,539	713		
East South Central.	4	3	573	2,713	476	957	2,061	4,586	5,661	10,402	143		
West South Central.	6	3	225	1,198	186	496	930	3,767	5,910	9,431	91	1,005	11,883
West.....	23	12	1,239	7,826	955	1,892	5,513	13,197	27,098	41,728	1,678		
INDUSTRY 3316.—COLD FINISHING OF STEEL SHAPES													
Total.....	81	68	13,700	99,557	10,623	21,833	71,527	223,977	529,954	751,627	14,925	10,943	141,516
New England.....	15	15	3,476	22,658	2,642	5,401	16,248	49,136	73,315	126,023	2,906	1,689	20,973
Connecticut.....	8	8	2,600	17,383	1,936	3,934	12,288	38,183	57,731	99,463	1,950	1,082	14,745
Middle Atlantic....	21	20	4,020	30,077	3,207	6,683	21,834	78,616	115,577	192,631	2,562	3,682	44,351
New York.....	4	4	1,333	10,766	1,118	2,497	8,306	38,246	31,192	68,811	1,223	1,127	13,554
New Jersey.....	4	3	494	3,710	372	743	2,406	7,983	13,842	21,366	403	494	6,257
Pennsylvania.....	13	13	2,193	15,601	1,717	3,443	11,122	32,387	70,543	102,454	936	2,061	24,540
East North Central.	30	25	5,647	42,953	4,359	8,922	30,878	88,599	321,533	405,725	8,743	4,880	69,762
Ohio.....	8	7	2,171	15,767	1,678	3,282	11,632	28,499	68,413	95,798	1,025	2,103	22,155
Indiana.....	6	4	992	7,624	742	1,599	5,474	17,669	53,742	71,753	329	956	13,648
Michigan.....	11	10	1,528	12,379	1,212	2,514	8,643	27,498	157,278	180,782	(D)	( <sup>3</sup> )	( <sup>3</sup> )
South Atlantic....	3	3	308	2,101	223	424	1,325	3,767	9,116	12,587	(D)	692	6,430
Pacific.....	12	5	249	1,768	192	403	1,242	3,859	10,413	14,661	(D)		
INDUSTRY 3317.—STEEL PIPE AND TUBE													
Total.....	141	115	22,882	153,147	18,270	37,862	113,656	295,242	517,291	809,009	23,588	23,911	284,096
Northeast.....	47	39	7,897	51,542	6,265	12,927	38,551	103,777	154,202	253,175	8,850	9,438	103,240
Pennsylvania.....	27	25	6,628	44,223	5,336	11,132	33,927	88,175	134,925	217,620	8,119	7,992	86,355
East North Central.	50	42	10,427	73,054	8,458	17,609	55,119	136,008	244,409	379,927	(D)	( <sup>3</sup> )	( <sup>3</sup> )
Ohio.....	17	16	5,213	37,125	4,269	8,968	28,552	66,431	136,945	201,603	5,155	4,019	45,790
Illinois.....	13	10	879	6,128	744	1,380	4,503	11,831	21,735	33,448	2,421	751	7,358
Michigan.....	13	10	2,367	17,359	1,876	4,096	12,711	34,617	40,604	75,420	1,188	2,065	26,477
West North Central.	3	2	263	1,500	179	377	971	2,953	4,293	7,264	(D)	( <sup>3</sup> )	( <sup>3</sup> )
South.....	18	16	2,165	12,311	1,704	3,550	8,314	29,750	57,130	87,275	1,473	2,670	38,992
Texas.....	7	6	1,062	6,775	793	1,578	4,284	16,360	37,176	53,982	1,116	1,843	30,892
West.....	23	16	2,130	14,740	1,664	3,399	10,701	22,754	57,257	81,368	2,761	2,764	31,942
California.....	19	12	1,837	12,645	1,454	2,926	9,292	19,283	46,243	66,713	2,385	( <sup>3</sup> )	( <sup>3</sup> )

See footnotes on next page.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Footnotes for Table 2-33A

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3312, Blast Furnaces and Steel Mills: New England—Massachusetts, 2 (1,000-2,499); Rhode Island, 1 (500-999); Connecticut, 3 (1,006); East North Central—Wisconsin, 2 (250-499); West North Central—Minnesota, 3 (2,500-4,999); Missouri, 5 (2,500-4,999); South Atlantic—Delaware, 1 (1,000-2,499); Maryland, 4 (10,000 and over); West Virginia, 7 (12,795); North Carolina, 2 (100-249); South Carolina, 1 (20-99); Georgia, 1 (1,000-2,499); Florida, 2 (100-249); East South Central—Alabama, 14 (10,000 and over); Mississippi, 1 (100-249); West South Central—Oklahoma, 1 (250-499); Texas, 4 (7,511); Mountain—Colorado, 2 (5,000-9,999); Arizona, 2 (20-99); Utah, 1 (2,500-4,999); Pacific—Washington, 3 (1,168); Oregon, 1 (250-499); Hawaii, 1 (100-249).

SIC 3312-11, Fully integrated works: Middle Atlantic—New York, 1 (10,000 and over); Pennsylvania, 9 (10,000 and over); East North Central—Illinois, 10 (10,000 and over); Michigan, 1 (5,000-9,999); West North Central—Minnesota, 1 (1,000-2,499); South Atlantic—Maryland, 1 (10,000 and over); West Virginia, 1 (10,000 and over); East South Central—Alabama, 2 (10,000 and over); West South Central—Texas, 2 (5,000-9,999); Mountain—Colorado, 1 (5,000-9,999); Utah, 1 (2,500-4,999); Pacific—California, 1 (5,000-9,999).

SIC 3312-12, Partially integrated works with blast furnaces: Middle Atlantic—New York, 2 (2,500-4,999); Pennsylvania, 3 (10,000 and over); East North Central—Illinois, 1 (5,000-9,999); Michigan, 1 (2,500-4,999); East South Central—Kentucky, 1 (2,500-4,999).

SIC 3312-13, Partially integrated works without blast furnaces: New England—Rhode Island, 1 (500-999); Connecticut, 1 (500-999); Middle Atlantic—New Jersey, 1 (1,000-2,499); East North Central—Indiana, 3 (2,500-4,999); Michigan, 2 (5,000-9,999); West North Central—Missouri, 1 (2,500-4,999); South Atlantic—Maryland, 2 (2,500-4,999); Virginia, 2 (250-499); West Virginia, 1 (500-999); North Carolina, 1 (100-249); South Carolina, 1 (20-99); Georgia, 1 (1,000-2,499); Florida, 1 (100-249); East South Central—Kentucky, 2 (1,000-2,499); Tennessee, 1 (250-499); Alabama, 3 (1,000-2,499); Mississippi, 1 (100-249); West South Central—Oklahoma, 1 (250-499); Texas, 1 (500-999); Pacific—Washington, 1 (500-999); Oregon, 1 (250-499); California, 8 (5,000-9,999); Hawaii, 1 (100-249).

SIC 3312-14, Nonintegrated works: New England—Massachusetts, 2 (1,000-2,499); Connecticut, 2 (250-499); Middle Atlantic—New York, 11 (1,000-2,499); New Jersey, 3 (1,000-2,499); East North Central—Indiana, 6 (5,000-9,999); Michigan, 7 (2,500-4,999); Wisconsin, 2 (250-499); West North Central—Minnesota, 2 (100-249); Missouri, 4 (250-499); South Atlantic—Delaware, 1 (1,000-2,499); Maryland, 1 (1-19); Virginia, 11 (250-499); West Virginia, 5 (1,000-2,499); North Carolina, 1 (1-19); Florida, 1 (20-99); East South Central—Kentucky, 2 (250-499); Tennessee, 4 (1,000-2,499); Alabama, 9 (2,500-4,999); West South Central—Texas, 1 (100-249); Mountain—Colorado, 1 (20-99); Arizona, 2 (20-99); Pacific—Washington, 2 (100-249); California, 8 (500-999).

SIC 3313, Electrometallurgical Products: Middle Atlantic—New York, 3 (1,000-2,499); New Jersey, 1 (100-249); Pennsylvania, 1 (20-99); East North Central—Indiana, 1 (1-19); Illinois, 3 (100-249); Michigan, 1 (20-99); West North Central—Iowa, 1 (250-499); South Atlantic—West Virginia, 10 (1,000-2,499); South Carolina, 1 (250-499); East South Central—Kentucky, 1 (500-999); Tennessee, 3 (500-999); Alabama, 1 (250-499); West South Central—Texas, 1 (100-249); Mountain—Montana, 1 (1-19); Pacific—Washington, 1 (20-99); Oregon, 3 (520); California, 2 (1-19);

SIC 3315, Steel Wire Drawing, Etc.: New England—New Hampshire, 3 (348); Rhode Island, 2 (500-999); Connecticut, 9 (1,000-2,499); Middle Atlantic—Pennsylvania, 15 (1,000-2,499); East North Central—Indiana, 4 (500-999); Michigan, 5 (500-999); Wisconsin, 3 (427); West North Central—Minnesota, 1 (1-19); Iowa, 2 (100-249); Missouri, 1 (100-249); South Atlantic—West Virginia, 1 (20-99); North Carolina, 1 (100-249); Georgia, 2 (20-99); Florida, 6 (100-249); East South Central—Kentucky, 2 (250-499); Tennessee, 2 (100-249); West South Central—Louisiana, 1 (20-99); Texas, 5 (100-249); Mountain—Colorado, 2 (20-99); Pacific—Washington, 1 (1-19); California, 20 (1,184).

SIC 3316, Cold Finishing of Steel Shapes: New England—Massachusetts, 6 (500-999); Rhode Island, 1 (250-499); East North Central—Illinois, 4 (500-999); Wisconsin, 1 (20-99); South Atlantic—Maryland, 2 (100-249); West Virginia, 1 (100-249); Pacific—Washington, 2 (20-99); California, 10 (100-249).

SIC 3317, Steel Pipe and Tube: New England—Massachusetts, 1 (20-99); Connecticut, 1 (1-19); Middle Atlantic—New York, 7 (250-499); New Jersey, 11 (500-999); East North Central—Indiana, 4 (446); Wisconsin, 3 (1,522); West North Central—Minnesota, 1 (20-99); Iowa, 1 (100-249); Missouri, 1 (1-19); South Atlantic—Georgia, 3 (20-99); East South Central—Kentucky, 1 (100-249); Tennessee, 2 (250-499); Alabama, 1 (100-249); Mississippi, 2 (20-99); West South Central—Louisiana, 2 (250-499); Mountain—Colorado, 2 (20-99); Utah, 1 (100-249); Pacific—Washington, 1 (20-99).

<sup>2</sup>Figures on cost of materials and value of shipments for industry 3312, Blast Furnaces and Steel Mills, include extensive duplication arising from shipments between establishments in the same industry classification. This also applies to the subindustries of industry 3312.

<sup>3</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

<sup>4</sup>See footnote 6, table 1 for definition of these industries.

TABLE 3. Detailed Statistics: 1963

Item	Blast furnaces and steel mills (SIC 3312)				
	Total	Fully integrated works <sup>1</sup> (3312-11)	Partially integrated works <sup>1</sup>		Nonintegrated works <sup>1</sup> (3312-14)
			With blast furnaces (3312-12)	Without blast furnaces (3312-13)	
Primary product specialization ratio <sup>2</sup> .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Coverage ratio <sup>4</sup> .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Establishments, total.....number..	288	34	12	80	162
With 1 to 19 employees.....do....	41	-	-	-	41
With 20 to 99 employees.....do....	26	-	-	2	24
With 100 employees or more.....do....	221	34	12	78	97
Proprietors and working partners.....do....	14	(NA)	(NA)	(NA)	(NA)
All employees (average for the year).....do....	500,550	268,642	53,262	112,025	66,621
Payroll (all employees), total for year.....\$1,000..	3,711,639	2,001,950	394,522	839,299	475,868
Production workers:					
Average for the year.....number..	412,311	221,899	44,944	90,704	54,764
March.....do....	393,603	211,424	41,147	88,054	52,978
May.....do....	434,738	226,846	56,719	92,285	58,888
August.....do....	434,188	241,523	42,960	93,923	55,782
November.....do....	386,694	207,794	38,952	88,569	51,379
Man-hours.....1,000..	791,364	425,369	84,406	177,857	103,732
January-March.....do....	191,272	101,462	20,375	43,815	25,620
April-June.....do....	218,905	117,448	24,307	47,986	29,164
July-September.....do....	190,786	103,190	20,427	42,390	24,779
October-December.....do....	190,399	103,266	19,297	43,666	24,170
Wages.....\$1,000..	2,892,006	1,573,019	314,388	637,170	367,429
Cost of materials, etc., total.....do....	<sup>3</sup> 8,958,663	<sup>3</sup> 3,786,183	<sup>3</sup> 975,965	<sup>3</sup> 1,821,510	<sup>3</sup> 2,375,005
Materials, parts, containers, and supplies consumed.....do....	<sup>3</sup> 7,983,724	<sup>3</sup> 3,424,787	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Cost of resales.....do....	106,984	14,450	24,816	51,233	16,485
Fuels consumed.....do....	591,689	242,909	141,651	95,891	111,238
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	24,208	9,793	2,589	8,225	3,600
Cost.....\$1,000..	221,107	85,378	22,804	75,667	37,258
Generated less sold.....million kw.-hrs..	8,192	7,035	604	183	370
Contract work.....\$1,000..	58,374	21,420	8,475	22,815	5,664
Value of shipments (including resales), total.....do....	<sup>3</sup> 16,611,083	<sup>3</sup> 8,192,193	<sup>3</sup> 1,804,266	<sup>3</sup> 3,380,122	<sup>3</sup> 3,234,502
Value of resales.....do....	109,631	13,855	24,377	53,005	18,394
Value added by manufacture, adjusted.....do....	7,699,535	4,426,518	847,471	1,574,020	851,526
Manufacturers' inventories:					
Beginning of year, total.....do....	3,175,474	1,571,065	345,795	586,704	671,910
Finished products.....do....	838,184	392,522	77,420	161,456	206,786
Work-in-process.....do....	742,219	290,611	50,497	217,852	183,259
Materials, supplies, fuel, etc.....do....	1,595,072	887,932	217,878	207,396	281,866
End of year, total.....do....	3,146,552	1,574,875	359,581	580,699	631,397
Finished products.....do....	843,487	399,445	89,288	162,175	192,579
Work-in-process.....do....	784,031	304,196	57,799	232,541	189,495
Materials, supplies, fuel, etc.....do....	1,519,034	871,234	212,494	185,983	249,323
Expenditures for plant and equipment, total.....do....	923,988	437,787	220,208	106,746	159,247
New, total.....do....	908,440	431,448	219,478	101,300	156,214
New structures and additions to plant.....do....	277,810	98,115	91,270	18,041	70,384
New machinery and equipment.....do....	630,630	333,333	128,208	83,259	85,830
Used plant and equipment.....do....	15,548	6,339	730	5,446	3,033
Selected operating ratios:					
Payroll/Total employment.....	7,415	7,452	7,407	7,492	7,142
Production workers/Total employment.....	.82	.83	.84	.81	.82
Man-hours/Production workers.....	1,919	1,917	1,878	1,961	1,894
Production worker wages/Man-hours.....	3.65	3.70	3.72	3.58	3.54
Cost of materials and payrolls/Total value of shipments....	.76	.71	.76	.79	.79
Cost of materials/Total value of shipments.....	.54	.46	.54	.54	.73
Adjusted value added/Total employment.....	15,382	16,477	15,911	14,051	12,794
Salaries and wages/Adjusted value added.....	.48	.45	.47	.53	.56

See footnotes at end of table.



TABLE 3. Detailed Statistics: 1963—Continued

Item	Electro- metallurgical products (SIC 3313)	Steel wire drawing, etc. (SIC 3315)	Cold finishing of steel shapes (SIC 3316)	Steel pipe and tube (SIC 3317)
Primary product specialization ratio <sup>2</sup> .....	.85-.90	.89	.94	.91
Coverage ratio <sup>3</sup> .....	.77	.30	.20	.37
Establishments, total.....number..	36	200	81	141
With 1 to 19 employees.....do....	6	67	13	26
With 20 to 99 employees.....do....	7	71	26	50
With 100 employees or more.....do....	23	62	42	65
Proprietors and working partners.....do....	2	21	8	11
All employees (average for the year).....do....	10,437	21,280	13,700	22,882
Payroll (all employees), total for year.....\$1,000..	68,880	134,636	99,557	153,147
Production workers:				
Average for the year.....number..	8,155	16,904	10,623	18,270
March.....do....	7,729	17,090	10,558	17,809
May.....do....	8,296	17,025	10,838	18,801
August.....do....	8,264	16,908	10,724	17,982
November.....do....	8,318	16,938	10,372	18,466
Man-hours.....1,000..	16,563	34,367	21,833	37,862
January-March.....do....	3,775	8,622	5,543	8,882
April-June.....do....	4,278	8,960	5,979	10,038
July-September.....do....	4,171	8,066	5,012	9,492
October-December.....do....	4,342	8,737	5,301	9,459
Wages.....\$1,000..	50,767	97,055	71,527	113,656
Cost of materials, etc., total.....do....	227,977	336,651	529,954	517,291
Materials, parts, containers, and supplies consumed.....do....	175,848	313,528	510,335	479,983
Cost of resales.....do....	9,817	11,014	9,241	15,311
Fuels consumed.....do....	12,640	4,792	5,125	5,968
Electric energy:				
Purchased:				
Quantity.....million kw.-hrs..	5,881	433	403	411
Cost.....\$1,000..	29,151	5,657	4,909	5,142
Generated less sold.....million kw.-hrs..	(D)	-	(D)	(D)
Contract work.....\$1,000..	521	1,660	344	10,887
Value of shipments (including resales), total.....do....	382,132	592,263	751,627	809,009
Value of resales.....do....	10-15 million	10-15 million	40,942	18,318
Value added by manufacture, adjusted.....do....	145,503	253,009	223,977	295,242
Manufacturers' inventories:				
Beginning of year, total.....do....	106,211	113,977	110,488	146,408
Finished products.....do....	49,606	50,940	29,751	50,541
Work-in-process.....do....	11,837	27,572	24,853	41,950
Materials, supplies, fuel, etc.....do....	44,768	35,465	55,884	53,917
End of year, total.....do....	93,879	110,367	109,368	151,971
Finished products.....do....	42,547	51,252	32,017	55,547
Work-in-process.....do....	10,244	24,657	24,891	42,268
Materials, supplies, fuel, etc.....do....	41,088	34,458	52,460	54,156
Expenditures for plant and equipment, total.....do....	13,877	15,278	15,321	29,188
New, total.....do....	13,412	14,002	14,925	23,588
New structures and additions to plant.....do....	2,572	3,795	1,818	5,533
New machinery and equipment.....do....	10,840	10,207	13,107	18,055
Used plant and equipment.....do....	465	1,276	396	5,600
Selected operating ratios:				
Payroll/Total employment.....	6,603	6,327	7,267	6,678
Production workers/Total employment.....	.78	.79	.78	.80
Man-hours/Production workers.....	2,031	2,033	2,055	2,071
Production worker wages/Man-hours.....	3.07	2.82	3.28	2.99
Cost of materials and payrolls/Total value of shipments....	.81	.80	.84	.83
Cost of materials/Total value of shipments.....	.63	.56	.71	.64
Adjusted value added/Total employment.....	12,851	11,805	16,349	12,903
Salaries and wages/Adjusted value added.....	.51	.54	.44	-

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>For definitions of these industries see table 1 footnote 6.

<sup>2</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>3</sup>There is substantial duplication in value of shipments<sup>4</sup> and cost of materials. (See introductory text.) Specialization and coverage ratio are not meaningful because of such duplication.

<sup>4</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3312.—BLAST FURNACES AND STEEL MILLS											
Establishments.....number..	288	22	9	10	20	6	43	41	40	33	64
All employees:											
Total.....do....	500,550	90	(D)	146	606	377	6,871	15,048	29,186	53,843	394,383
Payroll.....\$1,000..	3,711,639	427	(D)	798	3,295	2,021	44,083	105,507	211,609	382,306	2,961,593
Value added, adjusted.....do....	7,699,535	1,002	(D)	1,586	7,430	3,306	98,793	212,287	366,906	691,271	6,316,954
Value of shipments <sup>1</sup> .....do....	16,611,083	2,058	(D)	3,122	23,935	8,024	230,770	548,941	959,261	1,984,916	12,850,056
Capital expenditures, new...do....	908,440	255,280	(D)	731	1,279	232	3,026	12,249	27,773	45,779	762,091
Subindustry 3312-11.—Blast Furnaces and Steel Mills—FULLY INTEGRATED WORKS <sup>3</sup>											
Establishments.....number..	34	-	-	-	-	-	-	-	-	1	33
All employees:											
Total.....do....	268,642	-	-	-	-	-	-	-	-	268,642	(D)
Payroll.....\$1,000..	2,001,950	-	-	-	-	-	-	-	-	2,001,950	(D)
Value added, adjusted.....do....	4,426,518	-	-	-	-	-	-	-	-	4,426,518	(D)
Value of shipments <sup>1</sup> .....do....	18,192,193	-	-	-	-	-	-	-	-	8,192,193	(D)
Capital expenditures, new...do....	431,448	-	-	-	-	-	-	-	-	431,448	(D)
Subindustry 3312-12.—Blast Furnaces and Steel Mills—PARTIALLY INTEGRATED WORKS, WITH BLAST FURNACES <sup>3</sup>											
Establishments.....number..	12	-	-	-	-	-	-	-	1	-	11
All employees:											
Total.....do....	53,262	-	-	-	-	-	-	-	53,262	-	(D)
Payroll.....\$1,000..	394,522	-	-	-	-	-	-	-	394,882	-	(D)
Value added, adjusted.....do....	847,471	-	-	-	-	-	-	-	847,471	-	(D)
Value of shipments <sup>1</sup> .....do....	1,804,266	-	-	-	-	-	-	-	1,804,266	-	(D)
Capital expenditures, new...do....	219,478	-	-	-	-	-	-	-	219,478	-	(D)
Subindustry 3312-13.—Blast Furnaces and Steel Mills—PARTIALLY INTEGRATED WORKS, WITHOUT BLAST FURNACES <sup>3</sup>											
Establishments.....number..	80	-	-	-	-	2	10	12	21	18	17
All employees:											
Total.....do....	112,025	-	-	-	-	1,924	(D)	4,351	15,509	26,375	63,866
Payroll.....\$1,000..	839,299	-	-	-	-	12,315	(D)	29,583	114,603	192,376	490,422
Value added, adjusted.....do....	1,574,020	-	-	-	-	27,190	(D)	51,943	191,140	347,836	955,911
Value of shipments <sup>1</sup> .....do....	13,380,122	-	-	-	-	46,661	(D)	108,814	343,926	707,528	2,173,193
Capital expenditures, new...do....	101,300	-	-	-	-	1,280	(D)	2,151	11,009	25,297	61,563
Subindustry 3312-14.—Blast Furnaces and Steel Mills—NONINTEGRATED WORKS <sup>3</sup>											
Establishments.....number..	162	22	9	10	20	4	33	29	18	14	3
All employees:											
Total.....do....	66,621	90	(D)	146	606	5,324	(D)	10,697	49,758	(D)	(D)
Payroll.....\$1,000..	475,868	427	(D)	798	3,295	33,789	(D)	75,924	361,635	(D)	(D)
Value added, adjusted.....do....	851,526	1,002	(D)	1,586	7,430	74,909	(D)	160,344	606,255	(D)	(D)
Value of shipments <sup>1</sup> .....do....	13,234,562	2,058	(D)	3,122	23,995	192,133	(D)	440,127	2,573,127	(D)	(D)
Capital expenditures, new...do....	156,214	255,280	(D)	731	1,279	1,978	(D)	10,098	86,848	(D)	(D)
INDUSTRY 3313.—ELECTROMETALLURGICAL PRODUCTS <sup>3</sup>											
Establishments.....number..	36	2	-	4	5	2	10	7	3	3	-
All employees:											
Total.....do....	10,437	49	-	(D)	364	(D)	1,622	2,368	6,034	(D)	-
Payroll.....\$1,000..	68,880	287	-	(D)	2,405	(D)	10,444	14,750	40,994	(D)	-
Value added, adjusted.....do....	145,503	347	-	(D)	5,996	(D)	25,226	29,736	84,892	(D)	-
Value of shipments <sup>1</sup> .....do....	382,132	2,010	-	(D)	16,635	(D)	73,594	91,986	197,907	(D)	-
Capital expenditures, new...do....	13,412	155	-	(D)	391	(D)	5,100	2,913	4,853	(D)	-

See footnotes at end of table.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963—Continued

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
		INDUSTRY 3315.—STEEL WIRE DRAWING, ETC. <sup>3</sup>									
Establishments.....number..	200	22	24	21	36	35	33	24	4	1	-
All employees:											
Total.....do....	21,280	47	156	312	1,181	2,594	4,732	7,869	4,389	(D)	-
Payroll.....\$1,000..	134,636	265	788	1,815	6,196	14,907	27,524	52,326	30,815	(D)	-
Value added, adjusted.....do....	253,009	510	1,560	3,828	15,425	32,071	55,757	97,569	46,289	(D)	-
Value of shipments <sup>1</sup> .....do....	592,263	1,277	3,385	11,469	38,537	74,707	139,395	200,213	123,280	(D)	-
Capital expenditures, new...do....	14,002	<u>4,217</u>	(D)	513	926	1,701	3,458	3,977	<u>2,210</u>	(D)	-
		INDUSTRY 3316.—COLD FINISHING OF STEEL SHAPES <sup>3</sup>									
Establishments.....number..	81	6	4	3	15	11	25	11	5	1	-
All employees:											
Total.....do....	13,700	11	30	39	540	786	4,137	3,700	4,457	(D)	-
Payroll.....\$1,000..	99,557	99	183	274	3,552	5,679	29,263	26,666	33,841	(D)	-
Value added, adjusted.....do....	223,977	284	323	95	8,165	15,257	74,456	52,625	72,772	(D)	-
Value of shipments <sup>1</sup> .....do....	751,627	486	817	1,025	39,308	51,081	223,271	173,049	262,590	(D)	-
Capital expenditures, new...do....	14,925	12	<u>20</u>	(D)	304	995	2,998	2,196	<u>8,400</u>	(D)	-
		INDUSTRY 3317.—STEEL PIPE AND TUBE <sup>3</sup>									
Establishments.....number..	141	10	6	10	29	20	40	15	9	2	-
All employees:											
Total.....do....	22,882	19	38	167	954	1,557	6,382	4,668	9,097	(D)	-
Payroll.....\$1,000..	153,147	95	223	1,057	5,146	9,451	40,376	32,584	64,215	(D)	-
Value added, adjusted.....do....	295,242	191	442	1,336	16,570	18,117	82,290	65,035	111,255	(D)	-
Value of shipments <sup>1</sup> .....do....	809,009	617	961	7,052	31,116	49,870	241,697	209,008	268,688	(D)	-
Capital expenditures, new...do....	23,588	<u>5,213</u>	(D)	115	1,191	1,649	5,850	4,805	<u>9,765</u>	(D)	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

<sup>1</sup>Value of shipments for this industry contains extensive duplication. This duplication arises because the products of some establishments are used as materials by other establishments classified in the same industry.<sup>2</sup>Includes capital expenditures for plants under construction but not in operation of approximately \$50-\$100 million.<sup>3</sup>See footnote 6, table 1 for definition of these industries.<sup>4</sup>Includes capital expenditures for plants under construction but not in operation of approximately \$500-\$1,000 thousand.<sup>5</sup>Includes capital expenditures for plants under construction but not in operation of approximately \$100-\$200 thousand.

TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(Col. B)	(Col. C)	(Col. D)	(Col. E)	(Col. F)	(Col. G)	(Col. H)	(Col. I)	(Col. J)
		(1,000)	(1,000)	(1,000)	(1,000)	(percent)	(1,000)	(1,000)	(1,000)	(percent)
		A	B	C	D	E	F	G	H	I
3312	Blast furnaces and steel mills....1963..	<sup>1</sup> 16,611,083	<sup>1</sup> 15,459,136	807,902	344,045	( <sup>1</sup> )	17,553,735	15,459,136	2,094,599	( <sup>1</sup> )
	1958..	<sup>1</sup> 13,422,855	12,653,182	647,796	291,174	( <sup>1</sup> )	14,588,530	12,653,182	1,905,348	( <sup>1</sup> )
3313	Electrometallurgical products.....1963..	382,132	<sup>2</sup> 317,361	<sup>3</sup> 64,771	( <sup>3</sup> )	85-90	411,580	<sup>2</sup> 317,361	94,219	77
	1958..	399,122	354,797	35,129	9,196	91	468,117	354,797	113,320	76
3315	Steel wire drawing, etc.....1963..	592,263	<sup>2</sup> 508,514	61,513	22,236	89	1,672,445	<sup>2</sup> 508,514	1,163,931	30
	1958..	452,062	386,786	54,326	10,950	88	1,490,977	386,786	1,104,191	26
3316	Cold finishing of steel shapes....1963..	751,627	661,136	43,044	47,447	94	3,332,558	<sup>2</sup> 661,136	2,671,422	20
	1958..	477,824	449,574	22,114	6,136	95	2,430,547	449,574	1,980,973	18
3317	Steel pipe and tube.....1963..	809,009	707,371	73,422	28,216	91	1,887,495	707,371	1,180,124	37
	1958..	780,684	691,734	63,267	25,683	92	1,723,643	691,734	1,031,909	40

NOTE: See Introduction for an explanation of terms used.

<sup>1</sup>The value of shipments for the industry in 1963 totaled \$16,611 million. This value, however, includes duplication in that the products of some establishments are used as materials by others. See text for fuller explanation. Specialization ratio computed on the basis of net value of shipments would approximate 94 percent. A coverage ratio for this industry cannot be precisely computed. However, such a ratio would exceed 86 percent. Comparable ratios for 1958 were: specialization, 94 percent; coverage, 84 percent.

<sup>2</sup>Includes small amount of primary products made in other industries to avoid disclosing individual company figures. This amount, however, constitutes less than 2 percent of the total.

<sup>3</sup>Miscellaneous receipts included with secondary products.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Blast furnaces and steel mills (SIC 3312)							Electro-metallurgical products (SIC 3313)	Steel wire drawing, etc. (SIC 3315)	Cold finishing of steel shapes (SIC 3316)	Steel pipe and tube (SIC 3317)	All other industries
			Total	Fully integrated works <sup>1</sup> (3312-11)	Partially integrated works			Non-integrated works <sup>1</sup> (3312-14)						
					Total (3312-12 and 3312-13)	With blast furnaces <sup>1</sup> (3312-12)	Without blast furnaces <sup>1</sup> (3312-13)							
331--	BLAST FURNACES, STEEL WORKS, AND ROLLING AND FINISHING MILLS													
	Total shipments and receipts of the industry	(X)	216,611,083	28,192,193	25,184,388	21,804,266	23,380,122	23,234,502	382,132	592,263	751,627	809,009	(X)	
	Steel rolling and finishing products.....	(X)	215,722,566	27,925,546	24,802,260	21,743,804	23,058,456	22,994,760	317,361	518,186	682,879	727,700	(X)	
33121	Electrometallurgical products:													
pt.	Coke oven and blast furnace products, except ferroalloys.....	1,235,519	1,235,519	371,326	66,530	66,530	-	869,632	-	-	-	-	-	
33121	Blast furnace ferroalloys and other additives.....	71,969	71,969		-	-	-	-	-	-	-	-	-	
33131	Ferromanganese.....	177,432	{	-	-	-	-	-	154,416	-	(3)	-	423,016	
33134	Other ferroalloys produced in electric and other furnaces.....			-	-	-	-	-	-	-	-	-	-	
33132	Ferrosilicon.....	85,313	-	-	-	-	-	-	85,313	-	-	-	(3)	
33133	Ferrosilicon.....	78,092	(3)	-	-	-	-	-	75,858	-	-	-	2,234	
33130	Electrometallurgical products, n.s.k.....	1,774	-	-	-	-	-	-	1,774	-	-	-	(3)	
33122	Steel ingot and semifinished shapes.....	2,034,695	2,033,240	883,076	51,150,164	(200-500)	478,313	(200-500)	-	(3)	-	(3)	1,455	
33123	Hot rolled sheet and strip, including tin mill products.....	3,969,289	3,963,561	2,129,981	1,000,890	490,634	510,256	832,690	-	-	(3)	(3)	5,728	
33124	Hot rolled bars and bar shapes, plates, structural shapes and piling.....	3,667,698	3,655,139	2,038,687	1,389,544	(D)	(D)	226,908	-	(3)	(over 2)	(over 2)	12,559	
33125	Steel wire:													
Made in blast furnaces and steel mills (SIC 3312).....		621,566	{	363,952	133,033	(D)	(D)	69,739	-	-	-	-	-	
33155	Made in steel wire drawing (SIC 3315) and other industries.....			-	-	-	-	-	-	-	240,856	(over 2)	-	16,758
33126	Steel pipe and tube:													
Made in blast furnaces and steel mills (SIC 3312).....		1,887,495	{	1,137,456	677,541	(D)	(D)	170,904	-	-	-	-	-	
33176	Made in steel pipe and tube (SIC 3317) and other industries.....			-	-	-	-	-	-	-	-	(5-10)	707,371	42,668
33127	Cold rolled steel sheet and strip:													
Made in blast furnaces and steel mills (SIC 3312).....		2,872,901	{	2,464,420	1,361,763	264,335	357,676	478,646	-	-	-	-	-	
33167	Made in cold finishing of steel shapes (SIC 3316) and other industries.....			-	-	-	-	-	-	-	(2-5)	399,011	(3)	49,470

See footnotes at end of table.

Prod. class code	Class of products and miscellaneous receipts	All industries	Blast furnaces and steel mills (SIC 3312)						Electro-metalurgical products (SIC 3313)	Steel wire drawing, etc. (SIC 3315)	Cold finishing of steel shapes (SIC 3316)	Steel pipe and tube (SIC 3317)	All other industries
			Total	Fully integrated works <sup>1</sup> (3312-11)	Partially integrated works			Non-integrated works <sup>1</sup> (3312-14)					
					Total (3312-12 and 3312-13)	With blast furnaces <sup>1</sup> (3312-12)	Without blast furnaces <sup>1</sup> (3312-13)						
331--	BLAST FURNACES, STEEL WORKS, AND ROLLING AND FINISHING MILLS--Continued												
	Steel rolling and finishing products--Continued												
33128	Cold finished steel bar and bar shapes: Made in blast furnaces and steel mills (SIC 3312).....	472,745	199,435	49,423	132,809	(D)	(D)	17,203	-	-	-	-	-
33168	Made in cold finishing of steel shapes (SIC 3316) and other industries.....		-	-	-	-	-	-	-	7,784	258,631	(2-5)	6,955
33160	Cold finishing of steel shapes, n.s.k.....		-	120,653	5120,653	-	5120,653	(5-10)	-	-	3,494	( <sup>3</sup> )	( <sup>3</sup> )
33129	Open die press and hammer forgings.....	6316,668	213,854	129,280	62,764	(D)	(D)	21,810	-	( <sup>3</sup> )	(over 2)	411,096	
33120	Other steel mill products, except wire products.....	225,760											
33151	Noninsulated ferrous wire, rope, cable, and strand, produced from wire drawn in same establishment.....	7189,934	33,207	(5-10)	33,207	( <sup>3</sup> )	( <sup>3</sup> )	533,207	-	67,739	-	788,988	
33152	Steel nails and spikes.....	153,085	74,402	(20-50)	30,769	-	-	543,633	-	71,379	-	7,304	
33156	Fencing and fence gates made in wire drawing plants.....	7115,480	42,201	11,586	18,903	(D)	(D)	11,712	-	16,130	-	757,149	
33157	Wire cloth and other woven wire products made in wire drawing plants.....	772,328	510,466	( <sup>3</sup> )	510,466	-	-	510,466	-	13,851	-	748,011	
33159	Other fabricated ferrous wire products, except springs, made in wire drawing plants.	7501,529	104,238	39,961	563,705	(2-5)	(2-5)	563,705	-	77,894	-	7319,397	
33150	Steel wire drawing, etc., n.s.k.....	20,665	-	-	-	-	-	-	-	420,665	-	( <sup>3</sup> )	
	Other products.....	(X)	544,472	155,364	246,459	23,172	223,287	142,649	864,771	51,841	21,301	53,093	(X)
19110	Guns, howitzers, mortars, and related equipment over 30 mm (or over 1.18 inches).....	(X)	(2-5)	(2-5)	( <sup>3</sup> )	-	( <sup>3</sup> )	-	-	-	-	-	(X)
28132	Acetylene.....	(X)	-	-	-	-	-	-	(10-20)	-	-	-	(X)
28191	Synthetic ammonia, nitric acid, and ammonium compounds.....	(X)	(5-10)	(5-10)	-	-	-	(2-5)	( <sup>3</sup> )	-	-	-	(X)
28193	Sulfuric acid.....	(X)	(2-5)	-	-	-	-	-	-	-	-	-	(X)
28199	Reagent and high purity grades of inorganic chemicals and other inorganic chemicals, n.e.c.....	(X)	( <sup>3</sup> )	(over 2)	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	(10-20)	( <sup>3</sup> )	( <sup>3</sup> )	-	(X)
33211	Molds for heavy steel ingots.....	(X)	79,293	(over 2)	(20-50)	-	-	(over 2)	-	-	-	-	(X)
33212	Cast iron pressure pipe.....	(X)	(5-10)	(5-10)	( <sup>3</sup> )	-	-	-	-	-	-	-	(X)
33214	Miscellaneous gray iron castings.....	(X)	(5-10)	(5-10)	( <sup>3</sup> )	-	-	-	-	-	-	-	(X)
33230	Steel castings.....	(X)	22,473	(5-10)	522,473	( <sup>3</sup> )	( <sup>3</sup> )	522,473	-	-	( <sup>3</sup> )	-	(X)
33512	Rolled, drawn, and extruded copper and copper-base alloy mill products.....	(X)	(2-5)	-	-	-	-	(2-5)	-	( <sup>3</sup> )	-	-	(X)
33560	Rolled, drawn, and extruded nonferrous metal mill products (except copper and aluminum).....	(X)	6,681	56,681	(2-5)	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	-	( <sup>3</sup> )	( <sup>3</sup> )	(2-5)	(X)
33573	Other bare nonferrous metal wire, made in nonferrous wire drawing plants.....	(X)	-	-	-	-	-	-	-	(2-5)	( <sup>3</sup> )	-	(X)
33911	Drop, upset, and press steel forgings (closed die).....	(X)	31,401	(10-20)	(10-20)	-	(10-20)	(2-5)	-	-	-	( <sup>3</sup> )	(X)
33992	Other primary metal products, including nonferrous nails, brads, spikes, and staples.....	(X)	-	-	-	-	-	-	-	(5-10)	-	-	(X)

See footnotes at end of table.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Blast furnaces and steel mills (SIC 3312)							Electro-metallurgical products (SIC 3313)	Steel wire drawing, etc. (SIC 3315)	Cold finishing of steel shapes (SIC 3316)	Steel pipe and tube (SIC 3317)	All other industries
			Subindustries				Non-integrated works <sup>1</sup> (3312-14)							
			Total (3312-11)	Partially integrated works										
				Total (3312-12 and 3312-13)	With blast furnaces <sup>1</sup> (3312-12)	Without blast furnaces <sup>1</sup> (3312-13)								
	BLAST FURNACES, STEEL WORKS, AND ROLLING AND FINISHING MILLS—Continued													
	Other products—Continued													
34413	Other fabricated structural iron and steel...	(X)	(5-10)	(5-10)	-	(5-10)	-	(5-10)	-	-	-	-	-	(X)
34432	Fabricated steel plate, including stacks and weldments.....	(X)	5,431 (5-10)	(3) (5-10)	-	(3) (5-10)	-	(3) (5-10)	-	(3)	-	(3)	(10-20)	(X)
34434	Gas cylinders.....	(X)	-	-	-	-	-	-	-	-	-	-	-	(X)
34441	Sheet, metal roofing and siding, and roof drainage equipment.....	(X)	31,465 (2-5)	(3) (5-10)	-	(3) (2-5)	-	731,465 (2-5)	-	-	-	-	-	(X)
34442	Culverts, flumes, irrigation pipes.....	(X)	(2-5)	(2-5)	-	(2-5)	-	(2-5)	-	-	-	-	(5-10)	(X)
34443	Other sheet metal work.....	(X)	(5-10)	(3)	-	(3)	-	(3)	-	-	-	-	(5-10)	(X)
34493	Miscellaneous metal building materials and curtain wall.....	(X)	90,223	(5-10)	-	64,114	-	64,114	-	(3)	-	-	-	(X)
34521	Bolts, nuts, and other standard industrial fasteners.....	(X)	(50-100)	(2-5)	-	(10-20)	-	(10-20)	-	-	3,032	(3)	-	(X)
34523	Headed products (produced by cold and hot heading), other than industrial fasteners...	(X)	-	-	-	-	-	-	-	-	(2-5)	-	-	(X)
34612	Job stampings, except automotive.....	(X)	(10-20)	(5-10)	-	(5-10)	-	(5-10)	-	-	-	-	(3)	(X)
34613	Job stampings, automotive.....	(X)	(5-10)	(5-10)	-	(5-10)	-	(5-10)	-	-	-	-	(3)	(X)
34618	Other stamped and pressed metal end products.	(X)	(10-20)	(5-10)	-	(5-10)	-	(5-10)	-	(2-5)	(3)	-	-	(X)
34812	Precision mechanical springs.....	(X)	(5-10)	(3)	-	(3)	-	(3)	-	(2-5)	(2-5)	(5-10)	-	(X)
34930	Steel springs.....	(X)	(3)	(3)	-	(3)	-	(3)	-	-	-	(5-10)	-	(X)
34942	Metal fittings and unions for piping systems.	(X)	(5-10)	(5-10)	-	(5-10)	-	(5-10)	-	-	-	(3)	(3)	(X)
34990	Fabricated metal products, n.e.c.....	(X)	84,424	(over 2)	-	52,216	-	52,216	-	(3)	-	-	-	(X)
35333	Oil and gas field production machinery and equipment (except pumps).....	(X)	(2-5)	-	-	-	-	-	-	-	-	-	-	(X)
35540	Paper industries machinery and parts and attachments.....	(X)	-	-	-	-	-	-	-	-	(5-10)	-	-	(X)
35790	Addressing, dictating, duplicating, and office machines, n.e.c.....	(X)	-	-	-	-	-	-	-	-	6,729	-	-	(X)
35990	Carburetors, pistons, and other machine shop products.....	(X)	(2-5)	(3)	-	(3)	-	(3)	-	-	-	-	-	(X)
36442	Electrical conduit and conduit fittings.....	(X)	19,741	(over 2)	-	(2-5)	-	(2-5)	-	-	-	-	9,742	(X)
36795	Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks).....	(X)	-	-	-	-	-	-	-	-	-	-	-	(X)
	All other products.....	(X)	19,395	3,713	-	10,725	-	10,725	-	1,282	17,881	5,030	(2-5) 8,644	(X)
	Miscellaneous receipts.....	(X)	344,045	111,283	135,669	37,290	98,379	97,093	(8)	22,236	47,447	28,216	(X)	
	Conversion of steel for other companies.....	(X)	49,265	12,995	30,232	3,480	6,038	4,166	(3)	792	1,043	1,486	(X)	
	Other contract and commission work.....	(X)	9,382	88	5,128	11,712	4,166	568	(10-15)	4,021	568	1,461	(X)	
	Sale of scrap and refuse.....	(X)	112,301	36,407	18,197	6,485	57,697	290	290	1,363	4,639	5,123	(X)	
	Resales.....	(X)	109,781	14,005	77,382	53,005	18,394	40,942	(10-15)	12,240	40,942	18,318	(X)	
	All other receipts.....	(X)	63,316	47,788	4,730	1,782	10,798	255	(3)	3,820	255	1,828	(X)	

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

Footnotes continued on next page.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963—Continued

Footnotes for table 5B--33A--Continued

- <sup>1</sup>See footnote 6, table 1, for definition of fully integrated, partially integrated, and nonintegrated works.  
<sup>2</sup>The value of shipments of industry 3312 includes duplication in that the products of some establishments are used as materials by others. For 1963, it is estimated that the duplication amounted to \$2.28 billion and accordingly a net value of shipments would total \$14.33 billion. See text for fuller explanation.  
<sup>3</sup>Less than \$2 million. Exact figures are withheld to avoid disclosing figures of individual companies.  
<sup>4</sup>Includes figures for industries not shown separately.  
<sup>5</sup>Includes figures for subindustries not shown separately.  
<sup>6</sup>Includes total for product class 33919, Open die or smith forgings made in steel forgings and other industries which are primary to industry 3391.  
<sup>7</sup>The totals for product classes 33151, 33156, 33157, and 33159 include respectively the totals for product classes 34811, 34816, 34814 and 34819 which are primary to industry 3481, Fabricated Wire Products, N.E.C. Shipments of these product classes totaled as follows:

Product class	Value (\$1,000)
34811	\$ 82,619
34816	53,218
34814	38,767
34819	288,070

<sup>8</sup>Total for miscellaneous receipts included with "Other products" to avoid disclosing individual company figures.



TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Unit of measure	Shipments including interplant transfers							Produced and consumed in the same plant in the manufacture of other products
			Production	Total shipments		Shipments to other companies		Transfers to other plants of the same company		
				Quantity	Value (\$1,000)	Quantity	Value (\$1,000)	Quantity	Value (\$1,000)	
1963										
3313- -- 33121 pt.	ELECTROMETALLURGICAL PRODUCTS, TOTAL.....	Short tons (gross alloy wt.).....	(X)	(X)	414,580	(D)	(D)	(D)	(D)	(X)
33121 pt.			Made in blast furnace (industry 3312).....	642,917	538,588	71,969	(D)	(D)	(D)	(D)
3313- --	Made in electric and other furnaces (industry 3313 and other industries).....	.....do.....	(X)	(X)	342,611	(D)	(D)	(D)	(D)	(X)
33132 11	Ferrochrome.....	.....do.....	309,922	277,669	85,313	238,868	72,416	38,801	12,897	38,226
33133 11	Ferrosilicon.....	.....do.....	452,669	411,946	78,092	376,258	70,524	35,688	7,568	25,810
33121 85 33131 11 33121 pt.	Ferromanganese.....	.....do.....	1,381,371	1,212,216	249,401	(D)	(D)	(D)	(D)	(D)
33134 --										
33121 86 33134 11 33121 85	Silvery iron.....	.....do.....	207,950	209,268	15,968	(D)	(D)	(D)	(D)	(D)
33131 11										
33121 89 33134 98										
33130 00	Electrometallurgical products, n.s.k.....	.....	(X)	(X)	1,774	(X)	1,774	(X)	-	(X)
3312- --	BLAST FURNACE (INCLUDING COKE OVEN), STEEL WORKS AND ROLLING MILL PRODUCTS, TOTAL.....	.....	(X)	(X)	17,553,735	(X)	(X)	(X)	(X)	(X)
33121 --	Coke oven, blast furnace, and selected electrometallurgical products.....	.....	(X)	(X)	1,484,920	(X)	(X)	(X)	(X)	(X)
33121 11	Coke oven products: <sup>1</sup> Coke, except screenings and breeze.....	1,000 short tons.....	52,592	18,774	306,330	8,862	155,293	9,912	151,037	33,841
33121 12	Screenings and breeze.....	.....do.....	3,434	1,415	10,835	919	7,263	496	3,572	2,269
33121 31	Coke oven gas.....	Mil. cu. ft....	1,263,445	144,469	31,358	43,595	11,638	100,874	19,720	1,141,219
33121 41	Coke oven byproducts:	.....	(X)	(X)	18,834	(X)	18,539	(X)	295	(X)
33121 51	Ammonia (sulfate and liquor).....	.....	(X)	(X)	18,834	(X)	18,539	(X)	295	(X)
33121 51	Crude tar.....	1,000 gallons..	651,294	354,158	37,198	287,007	30,447	67,151	6,751	330,911
33121 61	Tar derivatives.....	.....	(X)	(X)	23,393	(X)	28,469	(X)	2,620	(X)
33121 71	Crude light oil.....	1,000 gallons..	195,253	68,549	7,696	(X)	28,469	(X)	2,620	131,300
33121 81	Light oil derivatives.....	.....do.....	194,160	131,487	31,368	119,576	29,052	11,911	2,316	50,526
33121 83	Other coke-oven products.....	.....	(X)	(X)	( <sup>2</sup> )	(X)	(X)	(X)	(X)	(X)
33121 91	Blast furnace products:	.....	.....	.....	.....	.....	.....	.....	.....	.....
33121 91	Pig iron, including pig iron with silicon content up to and including 6 percent.....	1,000 short tons.....	70,741	12,475	660,194	3,219	198,078	9,256	462,116	56,369
33121 92	Slag.....	.....do.....	(X)	(X)	108,313	(X)	(D)	(X)	(D)	(X)
33121 93	Sinter from ore, flue dust, and other materials.....	.....do.....	44,675	(X)	108,313	(X)	(D)	(X)	(D)	40,416
33121 94	Blast furnace gas.....	Mil. cu. ft....	3,760,237							3,691,035
33121 85, 86, 89 33131 11 33134 11, 98	Blast furnace ferroalloys.....	Short tons.....	1,381,371	1,212,216	249,401	(D)	(D)	(D)	(D)	(D)
	Other ferroalloys, except ferrochrome and ferrosilicon.	.....do.....								
1958										
3313- -- 33121 95	ELECTROMETALLURGICAL PRODUCTS, TOTAL.....	Short tons (gross alloy wt.).....	1,756,999	1,654,400	468,117	(D)	(D)	(D)	(D)	(D)
33121 95	Ferroalloys and other additives produced in blast furnaces.....	.....do.....	605,901	504,800	94,040	(D)	(D)	(D)	(D)	(D)
33130 12	Electric furnace ferroalloys and other additives.....	.....do.....	1,151,098	1,149,600	374,077	1,064,772	347,553	84,828	26,524	(D)

See footnotes at end of table.

TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Shipments including interplant transfers						Produced and consumed in the same plant in the manufacture of other products		
			Production	Total shipments		Shipments to other companies		Transfers to other plants of the same company			
				Quantity	Value (\$1,000)	Quantity	Value (\$1,000)	Quantity		Value (\$1,000)	
				1958—Continued							
3312- --	BLAST FURNACES (INCLUDING COKE OVENS), STEEL WORKS, AND ROLLING MILLS, TOTAL....		(X)	(X)	14,558,530	(X)	(X)	(X)	(X)	(X)	
33121 --	Coke oven, blast furnace, and electrometallurgical products...		(X)	(X)	21,524,337	(X)	(D)	(X)	(D)	(X)	
33130 --											
33121 11	Coke oven products: <sup>1</sup>										
	Coke, except screenings and breeze.....	1,000 short tons	52,127	17,547	321,072	7,395	140,965	10,152	180,107	33,906	
33121 21	Screenings and breeze.....	do.....	3,589	1,140	8,430	968	7,246	172	1,184	2,315	
33121 31	Coke oven gas.....	Mil. cu. ft....	783,039	163,906	36,435	82,100	22,257	81,806	14,178	613,961	
33121 41	Ammonia (sulfate and liquor).		(X)	(X)	21,096	(X)	20,640	(X)		(X)	
33121 51	Crude tar.....	1,000 gallons..	692,349	399,093	52,165	342,561	45,780	56,532	6,385	282,828	
33121 61	Tar derivatives.....	(X)	(X)	(X)	19,983	(X)	(D)	(X)	(D)	(X)	
33121 71	Crude light oil.....	1,000 gallons..	210,859	30,656	5,360	13,797	2,429	16,859	2,931	178,130	
33121 81	Light oil derivatives.....	do.....	167,022	159,842	45,819	(D)	(D)	(D)	(D)	15,024	
33121 83	Other coke-oven products.....		(X)	(X)	12,374	(X)	(X)	(X)	(X)	(X)	
33121 91	Blast furnace products: Pig iron including pig iron with silicon content up to 6 percent.....	1,000 short tons.....	57,050	9,157	514,232	3,911	230,281	5,246	283,951	47,499	
33121 92	Slag.....	do.....	(X)	19,889	10,509	(D)	(D)	(D)	(D)	(X)	
33121 93	Sinter from ore, flue dust, and other materials.....	do.....	24,631	(X)	(X)	(X)	7,888	(X)	857	24,055	
33121 94	Blast furnace gas.....	Mil. cu. ft....	4,395,362	(X)	8,745	(X)	(X)	(X)	(X)	4,224,557	
33121 95	Blast furnace ferroalloys.....	Short tons.....	1,756,999	1,654,400	2468,117	(D)	(D)	(D)	(D)	(D)	
3313- --	Other ferroalloys.....	do.....				(D)	(D)	(D)	(D)	(D)	
						Total shipments including interplant transfers					
						1963		1958			
	Product			Unit of measure		Quantity	Value (\$1,000)	Quantity	Value (\$1,000)		
3312- --	BLAST FURNACES (INCLUDING COKE OVENS), STEEL WORKS, AND ROLLING MILLS—Continued										
33122 --	Steel ingot and semifinished shapes: <sup>2</sup>					(X)	2,034,695	(X)		1,846,924	
	As reported in census of manufactures.....					(X)	1,978,253	(X)		1,833,913	
33123 --	Tin mill products, hot rolled sheet and strip: <sup>3</sup>					(X)	3,969,289	(X)		3,169,294	
	As reported in census of manufactures.....					(X)	3,931,707	(X)		3,125,915	
33124 --	Hot rolled bars and bar shapes, plates: <sup>3</sup>					(X)	3,667,698	(X)		2,879,672	
	As reported in census of manufactures.....					(X)	3,639,007	(X)		2,856,680	
	Steel wire: <sup>3</sup>					(X)	587,786	(X)		556,712	
33125 --	As reported in census of manufactures <sup>4</sup> .....					(X)	621,566	(X)		564,734	
33155 --						(X)	363,952	(X)		350,175	
33125 01	Made in steel mills (industry 3312).....					(X)	257,614	(X)		214,559	
33155 01	Made in steel wire drawing (industry 3315) and other industries.....					(X)		(X)			
	Steel pipe and tube: <sup>3</sup>					(X)	1,797,047	(X)		1,670,077	
33126 --	As reported in census of manufactures <sup>4</sup> .....					(X)	1,887,495	(X)		1,723,643	
33176 --						(X)	1,137,456	(X)		993,340	
33126 01	Made in steel mills (industry 3312).....					(X)	750,039	(X)		730,303	
33176 01	Made in steel pipe and tubes (industry 3317) and other industries.....					(X)		(X)			
	Cold rolled steel sheet and strip: <sup>3</sup>					(X)	2,781,560	(X)		2,073,358	
33127 --	As reported in census of manufactures.....					(X)	2,872,901	(X)		2,091,623	
33167 --						(X)	2,464,420	(X)		1,838,390	
33127 01	Made in steel mills (industry 3312).....					(X)	408,481	(X)		253,233	
33167 01	Made in cold finishing of steel shapes (industry 3316) and other industries.....					(X)		(X)			
	Cold finished steel bars, and bar shapes: <sup>3</sup>					(X)	476,066	(X)		331,530	
33128 --	As reported in census of manufactures.....					(X)	472,745	(X)		338,924	
33168 --						(X)		(X)			

See footnotes at end of table.



TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3312- --	BLAST FURNACES (INCLUDING COKE OVENS), STEEL WORKS, AND ROLLING MILLS—Continued					
	Cold finished steel bars, and bar shapes <sup>3</sup> —Continued					
	As reported in census of manufactures—Continued					
33128 01	Made in steel mills (industry 3312).....	.....	(X)	199,375	(X)	130,623
33168 01	Made in cold finishing of steel shapes (industry 3316) and other industries.....	.....	(X)	273,370	(X)	208,301
33129 --	Press and hammer steel forgings: <sup>5</sup> .....	.....	(X)	316,668	(X)	234,641
33919 --	Made in steel works (industry 3312).....	Short tons.....	(X)	120,653	129,289	119,487
33129 --	Made in steel forgings (industry 3391) and other industries.....	.....	(X)	196,015	(X)	115,154
33919 --	Open die hammer forgings:					
33129 21	Carbon steel.....	Short tons.....	129,819	56,558	<sup>6</sup> 126,836	<sup>6</sup> 59,174
33919 21	Alloy steel (except stainless).....	..do.....	70,597	61,440	138,291	152,249
33129 23	Made in industry 3312.....	..do.....	12,532	19,588	75,657	88,921
33919 22	Made in industry 3391 and other industries.....	..do.....	58,065	41,852	62,634	63,328
33129 25	Stainless steel.....	..do.....	4,104	10,243	7,749	18,310
33919 23	Open die press forgings:					
33129 61	Carbon steel.....	..do.....	174,229	60,866	( <sup>6</sup> )	( <sup>6</sup> )
33919 41	Made in industry 3312.....	..do.....	21,336	11,144	( <sup>6</sup> )	( <sup>6</sup> )
33129 61	Made in industry 3391 and other industries.....	..do.....	152,893	49,722		
33129 63	Alloy steel (except stainless).....	..do.....	129,982	101,076	( <sup>7</sup> )	( <sup>7</sup> )
33919 42	Made in industry 3312.....	..do.....	49,793	52,501	( <sup>7</sup> )	( <sup>7</sup> )
33129 63	Made in industry 3391 and other industries.....	..do.....	80,189	48,575		
33919 42	Stainless steel.....	..do.....	2,538	5,127	( <sup>8</sup> )	( <sup>8</sup> )
33129 65	Open die hammer and press forgings, n.s.k.....	.....	(X)	21,358	(X)	4,908
33919 43	Other steel mill products, except wire products: <sup>3</sup>					
33129 00	As reported on Annual Form MA-33B.....	.....	(X)	184,397	(X)	194,224
33919 00	As reported in census of manufactures.....	.....	(X)	225,760	(X)	198,515
33120 41	STEEL WIRE DRAWING AND STEEL NAILS AND SPIKES, TOTAL.....	.....	(X)	1,672,445	(X)	1,490,977
33151 --	Noninsulated ferrous wire rope, cable, and strand.....	.....	(X)	189,934	(X)	163,386
34811 --	Made in industries 3312 and 3315.....	.....	(X)	100,946	(X)	94,106
33151 --	Made in fabricated wire products, n.e.c. (industry 3481) and other industries.....	.....	(X)	88,988	(X)	69,280
33151 11	Iron and steel wire rope and cable.....	Short tons.....	235,262	141,184	187,395	125,025
34811 11	Made in industries 3312 and 3315.....	..do.....	135,385	67,775	96,686	62,561
33151 11	Made in industry 3481 and other industries.....	..do.....	99,877	73,409	90,709	62,464
33151 21	Composite strand, rope, and cable, including wire strands of different metals (except ACSR).....	..do.....	69,533	27,952	8,321	6,155
33481 21	Steel wire strand, except wire strand for prestressed concrete, including guard rail cable.....	..do.....	36,216	11,773	(NA)	30,352
33151 33	Wire strand for prestressed concrete.....	..do.....	(X)	9,025	(X)	1,854
34811 35	Noninsulated ferrous wire, rope, cable, and strand, n.s.k.....	.....	(X)	153,085	(X)	159,363
33151 00	Steel nails and spikes.....	.....	(X)	153,085	(X)	159,363
34811 00	Steel wire nails, spikes and brads:					
33152 11	Bright.....	Short tons.....	226,587	54,637	293,948	62,734
33152 13	Galvanized.....	..do.....	47,899	13,163	73,114	20,671
33152 17	Cement-coated.....	..do.....	45,053	10,347	65,431	14,359
33152 19	Other nails, spikes, etc.....	..do.....	30,759	11,480	28,423	9,643
33152 23	Steel wire staples:					
	Quantity reported.....	..do.....	39,357	23,645	44,741	17,419
	Quantity not reported.....	.....	(X)	12,978	(X)	3,433
33152 25	Steel tacks (wire and box).....	Short tons.....	12,086	8,534	(NA)	8,846
33152 28	Track spikes.....	..do.....	33,507	8,446	87,889	17,613
33152 32	Steel cut nails, spikes, and brads, including horseshoe nails but excluding track spikes.....	..do.....	11,289	6,506	(X)	4,645
33152 00	Steel nails and spikes, n.s.k.....	.....	(X)	3,349	(X)	4,645
33155 --	Steel wire.....	.....	(X)	<sup>9</sup> 619,424	(X)	<sup>9</sup> 564,734
33125 --						

See footnotes at end of table.

TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
	STEEL WIRE DRAWING AND STEEL NAILS AND SPIKES—Continued					
33156 -- 34816 -- 33156 -- 34816 --	Fencing and fence gates.....		(X)	115,480	(X)	103,309
	Made in industries 3312 and 3315.....		(X)	58,331	(X)	48,045
	Made in fabricated wire products, n.e.c. (industry 3481) and other industries.....		(X)	57,149	(X)	55,264
33156 13 34816 13 33156 35 34816 35 33156 13, 35 34816 13, 35	Chain link fencing, excluding post, gates and fittings.....	Short tons....	(NA)	37,458	(NA)	56,277
	Fence gates, posts, and fittings.....	..do.....	125,883	38,467		
	Made in industries 3312 and 3315.....	..do.....	(NA)	30,231	51,456	11,654
	Made in industry 3481 and other industries.....	..do.....	(NA)	45,694	(NA)	42,599
33156 21 34816 21	Wire fence, woven and welded.....	..do.....	132,190	33,294	(NA)	34,363
	Made in industries 3312 and 3315.....	..do.....	109,694	26,256	127,770	30,194
	Made in industry 3481 and other industries.....	..do.....	22,496	7,038	(NA)	4,169
33156 71 34816 71 33156 71 34816 71	Ornamental lawn fence.....	..do.....	11,011	3,452	19,754	5,695
	Made in industries 3312 and 3315.....	..do.....	5,781	1,844	17,995	5,134
	Made in industry 34816 and other industries.....	..do.....	5,230	1,608	1,759	561
33156 00 34816 00	Fencing and fence gates, n.s.k.....		(X)	2,809	(X)	6,974
33157 -- 34814 --	Ferrous wire cloth and other woven ferrous wire products.....		(X)	72,328	(X)	109,899
	Made in industries 3312 and 3315.....		(X)	24,317	(X)	25,943
	Made in fabricated wire products, n.e.c. (industry 3481) and other industries.....		(X)	48,011	(X)	71,956
33157 11 34814 11 33157 31 34814 31 33157 61 34814 61 33157 61 34814 61	Insect wire screening, steel, including stainless steel.....	1,000 sq. ft...	168,633	7,454	217,660	9,791
	Hardware cloth.....	Short tons....	8,637	6,277	10,162	7,218
	Industrial wire cloth, steel.....	1,000 sq. ft...	(NA)	23,713	48,508	24,675
	Made in industries 3312 and 3315.....	..do.....	(NA)	4,603	17,041	3,200
	Made in industry 3481 and other industries.....	..do.....	25,872	19,110	31,467	21,475
33157 71 34814 71 33157 98 34814 98 33157 00 34814 00	Woven wire netting (poultry, fur farm, stucco, etc.).....	Short tons....	(NA)	13,617	52,189	16,460
	Other wire cloth and woven wire products including diamond cloth.....		(X)	20,058	(X)	1016,679
	Wire cloth and woven wire products, n.s.k.....		(X)	1,209	(X)	1123,076
33159 -- 34819 --	Other fabricated wire products.....		(X)	501,529	(X)	405,656
	Made in industries 3312 and 3315.....		(X)	181,560	(X)	143,168
	Made in fabricated wire products, n.e.c. (industry 3481) and other industries.....		(X)	319,969	(X)	262,488
	Wire chain:					
33159 41 34819 41 33159 41 34819 41	Tire.....	Short tons....	20,899	14,834	28,844	20,141
	Made in industries 3312 and 3315.....	..do.....	7,772	5,609	9,626	7,018
	Made in industry 3481 and other industries.....	..do.....	13,127	9,225	19,218	13,123
33159 49 34819 49 33159 49 34819 49	Other.....	..do.....	61,465	44,652	47,944	34,553
	Made in industries 3312 and 3315.....	..do.....	19,740	14,161	14,557	11,649
	Made in industry 3481 and other industries.....	..do.....	41,725	30,491	33,387	22,904
33159 51 34819 51 33159 55 34819 55	Barbed and twisted steel wire.....	..do.....	110,613	20,348	57,388	12,131
	Wire bale ties.....	..do.....	17,340	17,340	71,260	15,682
	Made in industries 3312 and 3315.....	..do.....	73,184	13,932	56,717	12,181
	Made in industry 3481 and other industries.....	..do.....	13,750	3,408	14,543	3,501
	Welded steel wire fabric:					
33159 61 34819 61 33159 61 34819 61	Concrete reinforcing mesh.....	..do.....	486,664	94,172	516,694	97,539
	Made in industries 3312 and 3315.....	..do.....	379,350	74,160	435,148	80,106
	Made in industry 3481 and other industries.....	..do.....	107,314	20,012	81,546	17,433
33159 65 34819 65 33159 65 34819 65	Other welded steel wire fabric.....	..do.....	127,661	31,191	74,392	19,454
	Made in industries 3312 and 3315.....	..do.....	116,676	27,305	64,145	16,207
	Made in industry 3481 and other industries.....	..do.....	10,985	3,886	10,247	3,247

See footnotes at end of table.



TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3315- --	STEEL WIRE DRAWING AND STEEL NAILS AND SPIKES—Continued					
33159 --	Other fabricated wire products—Continued					
34819 --						
34819 --	Made in fabricated wire products, n.e.c. (industry 3481) and other industries—Continued					
33159 71	Wire garment hangers.....	1,000 lbs.....	161,381	25,645	146,672	19,517
34819 71						
33159 73	Wire carts, including household, grocery type and industrial.....		(X)	14,952	(X)	158,475
34819 73			(X)	9,198		
33159 75	Steel wire cages.....		(X)	211,298		
34819 75			(X)	17,854		
33159 77	Paper clips.....		(X)	20,665	(X)	28,164
34819 77			(X)	3,332,558	(X)	2,430,547
33159 98	Other wire products including baskets, guards, florists' designs, kitchenware, etc.....		(X)	2,781,560	(X)	2,064,070
34819 98			(X)	2,856,319	(X)	2,091,623
33159 00	Other fabricated wire products, n.s.k.....		(X)	476,066	(X)	331,530
34819 00			(X)	472,745	(X)	338,924
33150 00	Steel wire drawing, n.s.k.....		(X)	3,494	(X)	
3316- --	COLD-ROLLED SHEET, STRIP AND BARS, TOTAL.....		(X)	1,797,047	(X)	1,670,077
33167 01	Cold rolled steel, sheet and strip: As reported on Annual Form MA-33B.....		(X)	91,887,495	(X)	91,723,643
33127 01			(X)		(X)	
33168 01	Cold finished steel bars and bar shapes: As reported on Annual Form MA-33B.....		(X)		(X)	
33128 01			(X)		(X)	
33160 00	Cold rolled sheet, strip and bars, n.s.k.....		(X)		(X)	
33176 01	Steel pipe and tubes: As reported on Annual Form MA-33B.....		(X)		(X)	
33127 01			(X)		(X)	

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Excludes quantities produced in byproduct coke ovens operated in conjunction with utilities manufacturing and distributing gas.

<sup>2</sup>Data for product code 3312183 included with product codes 3312192, 3312193 and 3312194. The 1958 total for product class 33121 and 33130 includes ferrochrome and ferrosilicon which are excluded from the comparable 1963 total.

<sup>3</sup>Excludes shipments of steel processed on a conversion basis from nonsteel producing companies. Detailed data by shape and grade and net shipments figures appear in tables 6A-2, 6A-3 and 6A-4.

<sup>4</sup>Data reported in the census of manufactures differ from comparable figures reported in Annual Survey MA-33B chiefly due to companies not included in the annual survey. In addition there were minor differences between figures for a few companies reporting in the two surveys.

<sup>5</sup>These figures are not strictly comparable with tonnage shipments shown in Current Industrial Reports Series M-33C, Commercial Steel Forgings, in that the latter includes only forgings for sale, whereas the 1963 and 1958 Censuses of Manufactures include interplant transfers of forgings. Accordingly, a direct comparison with the monthly Current Industrial Reports Series is not possible. Forgings produced and consumed within the same plant are not included in either the census or the Current Industrial Reports figures. The estimated annual totals reported in the monthly Current Industrial Reports survey for commercial steel forgings were as follows:

	1963	1958
	Short tons	Short tons
Carbon.....	156,074	92,096
Alloy, including stainless.	219,936	163,480

<sup>6</sup>In 1958 product codes 3312921, 3391921, 3312961 and 3391941 were combined.

<sup>7</sup>In 1958 product codes 3312923, 3391922, 3312963 and 3391942 were combined.

<sup>8</sup>In 1958 product codes 3312925, 3391923, 3312965 and 3391943 were combined.

<sup>9</sup>For detailed data see products of industry 3312 above.

<sup>10</sup>For 1958, data for product code 3481519, Nonferrous metal insect wire screening, other than copper and copper-base alloy, and aluminum, is included with product code 3481490, Other wire cloth and woven wire products.

<sup>11</sup>For 1958, data for product code 3481400, Wire cloth and woven wire products, not specified by kind, includes data for product code 3481500, Nonferrous wire cloth and other woven nonferrous wire products, not specified by kind.

TABLE 6A-2. Steel Mill Products—Receipts, Production, Consumption, and Shipments: 1963

Census product code	Product	Receipts <sup>1</sup>  (short tons)	Production  (short tons)	Products consumed in producing plants (short tons)			Shipments <sup>1</sup>					
				In the manufacture of—			Total		To other companies		Transfers to other plants of the same company	
				Other steel basic shapes and forms	Fabricated products	As main- tenance, repair, and operating supplies	Quantity  (short tons)	Value f.o.b. plant (\$1,000)	Quantity  (short tons)	Value f.o.b. plant (\$1,000)		
33122 11	CARBON STEEL	622,047	98,845,947	98,555,593	77,814	17,275	517,361	33,147	118,010	8,399	399,351	24,748
33122 13	Semifinished shapes and forms:											
33122 15	Blooms, billets, slabs, sheet bars, and timpale bars.....	10,439,890	75,690,811	74,457,133	128,452	67,652	11,237,971	1,065,471	2,849,983	286,445	8,387,988	779,026
33122 17	Tube rounds.....	876,509	2,468,629	2,506,802	(D)	(D)	822,072	109,175	124,364	16,456	697,708	92,719
33122 19	Skeip.....	547,332	3,315,283	2,991,463	(D)	(D)	781,465	85,769	612,253	67,430	169,212	18,333
	Wire rods.....	1,026,640	4,449,656	3,957,209	9,347	3,818	1,543,264	226,851	1,086,007	158,778	457,257	68,073
	Finished shapes and forms:											
33124 11	Plates:		163,543	-		86,816	159,969	23,224	159,057	23,099	912	125
33124 13	Floor plates.....	634,069	6,819,961	480,580	115,974		6,693,641	879,262	5,952,597	779,058	741,044	100,204
33124 15	Plates, other than floor plates.....			(D)	8,083	20,212	4,790,034	608,517	4,530,029	575,227	260,005	33,290
33124 17	Structural shapes.....	18,737	4,833,169									
33124 19	Piling:											
	Sheet piling.....	1,002	384,305	-	-	7,699	389,843	51,170	382,857	50,244	6,986	926
	Bearing piles.....											
	Sheets and strip:											
	Sheets:											
33123 11, 15	Hot-rolled and enameling.....	4,831,049	12,906,587	4,427,572	173,305	33,300	12,792,103	1,515,340	9,307,452	1,107,979	3,484,651	407,361
33167 11	Cold-rolled.....	947,800	15,480,678	1,135,601	142,380	16,907	14,942,994	2,081,456	13,113,629	1,838,584	1,829,365	242,872
33123 13	Galvanized.....	30,205	3,700,482	79,918	164,971	4,596	3,452,791	600,959	3,741,093	661,973	107,160	16,977
33123 14, 22	Electrical (sheets and strip).....	(D)	53,835	(D)	(D)	(D)	62,670	11,833				
33123 17	Long terms.....	(D)	339,817	(D)	(D)	(D)	332,792	66,158				
	Strip:											
33123 19	Hot-rolled.....	617,623	1,761,156	542,762	89,532	9,230	1,718,367	233,814	1,527,828	210,257	190,539	23,557
33167 15	Cold-rolled.....	242,997	1,338,479	232,160	147,439	1,057	1,187,740	273,672	1,088,988	250,833	98,752	22,839
33123 21	Galvanized.....	405	279,548	(D)	26,250	472	251,662	47,809	249,894	47,465	1,768	344
33123 24, 25	Tin mill products:											
	Black plate (including chemically treated black plate).....	27,222	452,558	25,572	110	792	432,741	63,123	432,741	63,123	( <sup>2</sup> )	( <sup>2</sup> )
	Template:											
33123 26	Hot dipped.....	-	141,878	-	-	109	189,130	36,638	189,130	36,638	-	-
33123 27	Electrolytic.....											
33123 29	Terne plate (short terms).....	191	5,013,771	169	-	744	5,045,870	941,204	5,045,773	941,189	97	15
	Bars:											
	Hot-rolled bars, except concrete reinforcing:											
33124 21	Hollow drill steel.....	1,197,973	6,917,213	1,134,428	323,405	29,025	6,527,539	940,680	5,876,992	848,478	650,547	92,202
33124 23	All other.....											
	Concrete reinforcing bars:											
33124 25	Rolled from new billets.....	107,857	3,042,021	(D)	344,266	10,264	2,668,926	278,165	2,147,456	228,861	662,415	65,356
33124 27	Rolled from old materials (rails, axles, etc.).....	9,366	177,971	(D)	35,848	-	140,945	16,052				
	Cold finished bars.....	21,647	316,806	8,801	1,218	1,782	1,326,580	302,077	1,288,998	294,103	37,582	7,974
33168 11	Tool-steel bars.....	434	9,034	(D)	-	255	8,945	7,335	8,945	7,335	-	-

See footnotes at end of table.



TABLE 6A-2. Steel Mill Products—Receipts, Production, and Shipments: 1963—Continued

Census product code	Product	Receipts <sup>1</sup>  (short tons)	Production  (short tons)	Products consumed in producing plants (short tons)			Shipments <sup>1</sup>					
				In the manufacture of—		As main- tenance, and operating supplies	Total		To other companies		Transfers to other plants of the same company	
				Other steel basic shapes and forms	Fabricated products		Quantity  (short tons)	Value f.o.b. plant (\$1,000)	Quantity  (short tons)	Value f.o.b. plant (\$1,000)		
												Quantity  (short tons)
CARBON STEEL—Continued												
Finished shapes and forms—Continued												
Pipe and tubes:												
33176 11	Standard pipe.....	133,216	2,339,441	40,434	43,701	17,277	2,341,775	422,622	2,253,125	407,318	88,650	15,304
33176 12	Line pipe.....	6,168	1,923,580	2,615	(D)	(D)	1,930,049	334,640	1,901,901	330,192	28,148	4,448
33176 13	Oil country goods.....	5,721	1,222,903	-	(D)	102	1,176,125	252,467	1,342,978	280,339	71,734	21,472
33176 19	Miscellaneous.....	(D)	244,478	(D)	(D)	77	238,587	49,344	188,295	80,691	33,941	12,555
33176 14	Pressure tubing.....	10,349	224,661	8,966	(D)	(D)	222,236	93,246	866,357	248,776	12,559	3,436
33176 15	Mechanical tubing.....	44,039	910,541	32,251	42,212	123	878,916	252,212				
Wire:												
33155 11	Plain wire.....	82,462	2,220,276	71,943	521,437	8,134	1,707,378	382,472	1,581,715	353,866	125,663	28,606
33155 15	Galvanized wire.....	16,962	332,078	15,388	47,922	1,722	274,043	70,117	237,649	61,135	36,394	8,982
33155 19	Other coated wire.....	5,091	111,009	3,531	3,996	182	104,873	48,315	102,624	47,071	2,249	1,244
Wire products: <sup>3</sup>												
33152 21	Nails and staples.....	7,666	338,956	(D)	5,440	434	341,781	80,100	335,718	78,616	6,063	1,484
33159 51	Barbed and twisted wire.....	100	113,436	-	60	30	110,782	20,279	109,889	20,124	893	155
33156 21	Wire fence, woven and welded.....	(D)	129,298	-	(D)	(D)	133,265	28,992	131,709	28,638	1,556	354
33159 55	Bale ties.....	481	70,834	-	(D)	202	72,046	13,114	72,046	13,114	-	-
33151 11	Wire rope and cable.....	(D)	98,658	(D)	(D)	306	97,454	61,450	184,289	88,942	9,542	5,380
33151 31	Wire strand.....	(D)	96,644	(D)	(D)	96	96,377	32,872	32,872	13,520	-	-
33151 31	Wire strand.....	(D)	96,644	(D)	(D)	96	96,377	32,872	32,872	13,520	-	-
33157 71	Woven wire netting.....	(D)	38,301	-	-	-	44,751	13,520				
Rails, wheels, and track accessories:												
Rails:												
33120 11	Standard tee (over 60 lb. per yard).....	(D)	506,281	-	(D)	6,971	489,332	58,621	475,237	56,929	14,095	1,692
33120 12, 13	All other (light tee, girder, guard, etc.).....	547	31,491	-	141	669	31,100	4,700	26,886	4,032	4,214	668
33120 14	Rail joints and tie plates.....	278	168,249	-	(D)	(D)	162,927	24,838	160,352	24,465	2,575	373
33120 15	Wheels, rolled (including tires and rims)	(D)	269,548	-	(D)	304	253,117	60,395	250,459	59,819	2,658	576
33120 19	Other rolled and drawn carbon steel products.....	(D)	141,848	(D)	(D)	120	115,789	25,895	113,892	25,437	1,897	458
ALLOY STEEL (EXCEPT STAINLESS)												
33122 31	Ingot.....	102,548	8,975,689	8,739,222	192,352	1,955	108,708	26,349	21,822	4,225	86,886	22,124
Semifinished shapes and forms:												
33122 33	Blooms, billets, slabs, and sheet bars.....	724,297	6,024,382	5,495,610	134,284	7,209	1,090,139	206,586	561,995	106,755	528,144	99,831
33122 35, 37	Tube rounds and skelp.....	367,498	700,638	686,948	(D)	(D)	377,037	83,490	44,001	11,261	333,036	72,229
33122 39	Wire rods.....	37,041	64,245	45,221	425	-	54,578	14,883	40,332	11,340	14,246	3,543
Finished shapes and forms:												
33124 31	Plates.....	132,951	762,702	(D)	(D)	(D)	792,437	162,380	748,737	153,324	43,700	9,056
Sheets and strip:												
Sheets:												
33123 31	Hot-rolled.....	10,716	376,225	(D)	(D)	(D)	348,982	71,452	342,669	67,058	6,313	4,394
33167 31	Cold-rolled.....	(D)	77,401	(D)	(D)	7	64,215	14,951	64,120	14,918	95	33
33123 34, 42	Electrical (sheet and strip).....	(D)	630,803	(D)	(D)	(D)	634,079	194,598	448,313	154,127	185,766	40,471
Strip:												
33167 35	Cold-rolled.....	(D)	25,117	(D)	(D)	-	24,083	22,857	21,412	20,948	2,671	1,909
33123 39	Hot-rolled.....	10,915	49,232	10,634	-	155	50,634	12,616	44,969	10,896	5,665	1,720
33124 35	Structural shapes.....	(D)	183,650	(D)	(D)	(D)	174,047	32,487	164,056	30,125	9,991	2,362

See footnotes at end of table.

TABLE 6A-2. Steel Mill Products—Receipts, Production, Consumption, and Shipments: 1963—Continued

Census product code	Product	Receipts <sup>3</sup> (short tons)	Production (short tons)	Products consumed in producing plants (short tons)			Shipments <sup>1</sup>			Transfers to other plants of the same company	
				In the manufacture of— Other steel basic shapes and forms Fabricated products			Total		To other companies		
							Quantity (short tons)	Value f.o.b. plant (\$1,000)	Quantity (short tons)		Value f.o.b. plant (\$1,000)
ALLOY STEEL (EXCEPT STAINLESS)—Continued											
Finished shapes and forms—Continued											
Bars:											
33124 41	Hot-rolled.....	137,222 (D)	1,947,014 214,212	130,188 (D)	49,472 (D)	2,014 235	1,905,701 212,571	1,763,662 189,956	379,744 74,208	142,039 22,615	27,492 7,856
33168 31	Cold-finished.....										
Tool steel bars:											
33124 48	High speed.....	(D)	16,803	(D)	(D)	(D)	23,786	20,666	61,551	3,120	4,282
33124 49	Other than high speed.....	1,808	50,679	(D)	(D)	(D)	50,003	42,162	64,007	7,841	10,757
Pipe and tubes:											
33176 32	Line pipe.....	(D)	121,679	-	(D)	-	114,648	114,648	24,034	-	-
33176 33	Oil country goods.....	1,316	307,519	-	-	-	300,621	300,621	81,013	-	-
33176 34	Pressure tubing.....	185	38,370	(D)	3	-	38,470	38,470	22,983	189,267	80,616
33176 35	Mechanical tubing.....	(D)	357,274	48,280	(D)	(D)	360,880	164,280	192,168	189,267	80,616
33176 31, 39	Standard and miscellaneous.....	5,768	11,608	(D)	(D)	(D)	10,993	4,508	4,508	-	-
33155 31, 35, 39	Wire.....	1,504	59,809	1,511	8,943	(D)	50,649	45,981	35,913	4,668	2,355
33120 39	Other rolled and drawn alloy steel products.....	(D)	12,956	-	(D)	(D)	11,026	11,026	7,726	-	-
STAINLESS STEEL											
33122 51	Ingots.....	71,904	1,188,982	1,202,211	1,894	405	50,010	17,013	24,598	32,997	15,080
33122 53	Semi-finished shapes and forms:										
33122 55, 57, 59	Blooms, billets, slabs, and sheet bars....	165,980	914,315	853,500	4,573	2,958	209,113	27,779	113,590	181,334	94,301
	Tube rounds, skelp, and wire rods.....	25,472	44,693	41,015	-	-	28,732	13,322	25,422	15,410	12,351
Finished shapes and forms:											
Sheets and strip:											
33167 51	Hot-rolled.....	2,901	152,078	2,731	208	387	151,614	147,912	154,734	3,702	2,963
33123 51	Cold-rolled.....	165,727	150,491	135,386	526	-	169,742	66,255	93,524	103,487	51,355
Strip:											
33123 59	Hot-rolled.....	40,199	69,742	37,910	-	-	71,674	66,524	42,639	5,150	2,934
33167 51	Cold-rolled.....	(D)	238,483	30,942	(D)	(D)	236,272	213,531	233,890	22,741	21,451
33124 51	Plates.....	(D)	59,369	(D)	(D)	178	58,355	64,494	64,494	12,636	10,925
Bars:											
33124 61	Hot-rolled.....	7,809	57,227	7,139	(D)	(D)	55,357	72,716	61,165	1,301	1,532
33168 51	Cold-finished.....	1,655	75,560	(D)	-	54	74,017	99,781	99,781	22,439	21,451
Pipe and tubes:											
33176 54	Pressure tubing.....	144	20,433	(D)	30	-	20,523	19,206	48,228	1,317	2,333
33176 55	Mechanical tubing.....	1,890	13,164	1,501	-	-	13,275	12,685	47,470	590	1,372
33155 51	Wire.....	3,258	32,492	4,391	1,764	-	30,390	29,389	50,969	1,001	2,001
33120 59	Other rolled and drawn stainless steel products.....	420	1,497	(D)	10	-	1,539	1,539	2,222	-	-

Source: Current Industrial Reports Series M33B, Steel Mill Products.

Standard Notes: - Represents zero.

<sup>1</sup>Excludes receipts and shipments of steel processed on a conversion basis for nonsteel producing companies. Receipts data represent receipts at producing mills only but include receipts from both domestic and foreign sources.<sup>2</sup>Transfers to other plants of the same company are included with shipments to other companies. Such transfers constitute less than 5 percent of the total.<sup>3</sup>Represents the quantity and value of shipments by steel works and wire drawing plants. Total shipments of these products by all establishments in 1963 are shown in table 6A.



TABLE 6A-3. Steel Mill Products—Receipts, Production, Consumption, and Shipments: 1958

Product	Receipts <sup>1</sup>  (short tons)	Production  (short tons)	Products consumed in producing plants (short tons)			Total		Shipments <sup>1</sup>		Transfers to other plants of the same company	
			In the manufacture of other steel basic shapes and forms	In the manufacture of fabricated products	As main- tenance, repair, and operating supplies	Quantity  (short tons)	Value f.o.b. plant (\$1,000)	Quantity  (short tons)	Value f.o.b. plant (\$1,000)		
CARBON STEEL											
Ingots.....	376,691	78,578,866	78,426,002	76,181	12,721	377,869	26,946	44,306	4,050	333,563	22,896
Semifinished shapes and forms:											
Blooms, billets, slabs, sheet bars, and timplate bars.....	10,317,226	58,194,460	57,552,332	62,664	47,260	10,724,376	1,013,799	2,345,982	242,419	8,378,394	771,380
Tube rounds.....	723,067	2,132,882	2,157,238	-	632	708,997	91,795	175,180	22,831	533,817	68,964
Skelp.....	876,778	3,430,286	3,455,027	-	2,832	864,370	97,213	665,624	72,200	198,746	25,013
Wire rods.....	859,423	4,164,930	3,946,130	27,902	2,906	1,400,738	212,971	929,994	137,402	470,744	75,569
Finished shapes and forms:											
Plates:											
Floor plates.....	1,801	147,408	667	199	2,667	147,248	20,745	141,133	19,976	6,115	769
Plates, other than floor plates.....	910,666	5,793,828	925,890	60,830	87,812	5,675,555	734,443	5,048,708	651,321	626,847	83,122
Sheets and strip:											
Sheets:											
Hot-rolled and enameling.....	2,604,869	8,480,999	2,428,967	39,886	34,561	8,649,935	1,018,884	6,182,386	748,995	2,467,549	269,889
Cold-rolled.....	1,235,837	11,308,623	994,042	87,985	23,568	11,318,684	1,539,307	9,532,192	1,320,256	1,786,492	219,051
Galvanized.....	37,456	2,802,601	18,195	121,931	4,661	2,680,361	457,490	2,589,622	443,363	90,739	14,127
Electrical (sheets and strip).....	-	42,478	-	-	-	41,269	9,777	41,269	9,777	-	-
Long termes.....	1,203	125,804	819	-	-	125,702	23,821	125,702	23,821	( <sup>2</sup> )	( <sup>2</sup> )
Strip:											
Hot-rolled.....	453,794	1,381,738	437,159	165,553	2,691	1,204,990	167,120	1,101,902	153,241	103,088	13,879
Cold-rolled.....	213,758	848,856	193,633	29,318	2,554	824,658	187,256	768,585	175,894	56,073	11,362
Galvanized.....	1,633	202,083	917	20,655	63	178,436	36,500	178,086	36,435	350	65
Tin mill products:											
Black plate (including chemically treated black plate)...	17,872	579,943	8,355	2,227	662	616,564	89,293	595,793	86,186	20,771	3,107
Tin plate:											
Hot dipped.....	-	426,068	-	-	104	442,505	87,372	442,505	87,372	-	-
Electrolytic.....	259	4,852,868	(D)	-	2,019	5,081,353	919,442	5,081,353	919,442	-	-
Terme plates (short termes).....											
Structural shapes and piling.....	39,006	4,486,611	6,344	47,733	35,989	4,434,416	577,276	4,109,519	515,127	324,897	42,149
Bars:											
Hot rolled bars, except concrete reinforcing:											
Hollow drill steel.....	881,547	5,426,433	822,846	353,820	32,561	5,020,711	715,716	4,476,063	639,195	544,648	76,521
All other.....											
Concrete reinforcing bars:											
Rolled from new billets.....	11,518	2,276,719	4,698	71,273	9,096	2,166,546	279,782	1,909,160	249,015	257,386	30,767
Rolled from old materials (rails, axes, etc.).....	13,075	186,036				186,252	25,929	186,252	25,929	-	-
Cold finished bars.....	10,385	927,925	84	1,067	402	942,442	210,942	907,422	203,790	35,020	7,152
Tool-steel bars.....	432	6,856	394	-	149	7,118	6,010	6,160	5,158	958	852
Rails, wheels, and track accessories:											
Rails:											
Standard tee (over 60 lb. per yard).....	21,061	553,649	(D)	5,441	11,026	533,648	60,803	521,095	59,452	12,553	1,351
All other light tee, girder, guard, etc.).....	372	35,910	(D)	1,179	338	38,188	5,813	34,323	5,230	3,865	583

See footnotes at end of table.

TABLE 6A-3. Steel Mill Products—Receipts, Production, and Shipments: 1958—Continued

Product	Receipts <sup>1</sup> (short tons)	Production (short tons)	Products consumed in producing plants (short tons)				Shipments <sup>1</sup>			Transfers to other plants of the same company	
			In the manufacture of other steel basic shapes and forms	In the manufacture of fabricated products	As main- tenance, repair, and operating supplies	Total		To other companies			
						Quantity (short tons)	Value f.o.b. plant (\$1,000)	Quantity (short tons)	Value f.o.b. plant (\$1,000)		Quantity (short tons)
CARBON STEEL—Continued											
Finished shapes and forms—Continued											
Rails, wheels, and track accessories—Continued											
Rail joints and tie plates.....	248 (D)	153,499	-	3,612 (D)	2,092 1,576	146,661 165,765	21,266 43,140	146,661 161,149	21,266 41,114	-	2,026
Wheels, rolled (including tires and rims).....		169,599	-								
Pipe and tubes:											
Standard pipe.....	36,939	2,238,807	-	29,353	9,727	2,220,801	418,680	2,150,584	405,647	70,217	13,033
Line pipe.....	2,452	2,422,514	(D)	2,802	341	2,392,996	438,249	2,374,692	435,105	18,304	3,144
Oil country goods.....	1,738	1,117,900	-	(D)	(D)	896,942	189,994	896,942	189,994	-	-
Pressure tubing.....	6,525	212,068	3,510	4,099	215	219,584	84,440	192,239	74,540	27,345	9,903
Mechanical tubing.....	37,513	655,925	12,518	21,564	179	630,048	189,041	616,314	185,710	13,734	3,331
Miscellaneous.....	19,308	254,234	(D)	1,272	80	266,405	62,287	241,998	56,883	24,407	5,404
Wire:											
Plain wire.....	77,160	2,114,065	65,696	489,630	8,235	1,613,850	366,709	1,471,453	332,331	142,397	34,378
Galvanized wire.....	11,403	351,130	9,888	25,073	1,735	312,460	81,255	267,312	69,701	45,148	11,554
Other coated wire.....	3,952	88,800	1,737	5,298	-	82,720	35,352	80,697	34,574	1,823	778
Wire products: <sup>3</sup>											
Nails and staples.....	3,299	426,537	-	3,307	493	429,020	99,229	415,146	96,032	13,874	3,197
Barbed and twisted wire.....	37	56,382	-	9	31	57,616	11,807	257,616	211,807	( <sup>2</sup> )	( <sup>2</sup> )
Wire fence, woven and welded.....	1,138	129,585	-	1,198	16	137,834	30,609	137,834	30,609	-	-
Bale ties.....	(D)	53,336	(D)	(D)	(D)	55,034	12,082	54,535	11,974	499	108
Wire rope and cable.....	344	75,769	(D)	(D)	343	77,676	53,998	58,925	42,124	18,754	11,874
Wire strand <sup>4</sup> .....	(D)	74,272	(D)	(D)	(D)	71,295	28,673	69,916	28,181	1,379	492
Woven wire netting.....	(D)	50,365	-	-	(D)	49,770	14,555	49,770	14,555	-	-
Other rolled and drawn carbon steel products.....	1,754	157,358	-	8,116	802	148,645	30,403	145,520	29,157	3,125	1,246
ALLOY STEEL (EXCEPT STAINLESS)											
Ingots.....	63,283	5,669,114	5,443,774	200,245	1,239	71,375	13,717	17,574	3,105	53,801	10,612
Semifinished shapes and forms:											
Blooms, billets, slabs, and sheet bars.....	636,295	3,717,183	3,378,818	70,117	3,404	872,882	155,599	325,417	63,585	547,465	92,014
Tube rounds and skelp.....	260,007	444,134	465,417	-	443	233,364	50,333	32,013	7,765	201,351	42,568
Wire rods.....	16,058	65,845	45,090	7,907	-	27,494	6,674	2,274,94	26,674	( <sup>2</sup> )	( <sup>2</sup> )
Finished shapes and forms:											
Plates.....	2,861	337,325	1,679	(D)	(D)	329,467	95,137	314,761	92,234	14,706	2,903
Sheet and strip:											
Sheet:											
Hot-rolled.....	19,512	252,686	20,220	1,951	129	244,511	53,688	223,442	48,505	21,069	5,183
Cold-rolled.....	(D)	60,716	(D)	(D)	(D)	56,254	15,867	256,254	215,867	( <sup>2</sup> )	( <sup>2</sup> )
Electrical (sheet and strip).....	89,378	427,494	(D)	11,776	-	477,852	143,826	477,852	143,826	-	-
Strip:											
Hot-rolled.....	6,601	35,197	6,743	(D)	-	32,178	7,928	28,034	6,901	4,144	1,027
Cold-rolled.....	(D)	23,677	13,228	(D)	-	13,203	11,436	9,597	9,465	3,606	1,971
Structural shapes.....	(D)	42,270	-	(D)	204	39,812	6,806	37,956	6,468	1,856	338

See footnotes at end of table.



TABLE 6A-3. Steel Mill Products—Receipts, Production, Consumption, and Shipments: 1958—Continued

Product	Receipts <sup>1</sup> (short tons)	Production (short tons)	Products consumed in producing plants (short tons)					Total		To other companies		Transfers to other plants of the same company	
			In the manufacture of other steel basic shapes and forms	In the manufacture of fabricated products	As main- tenance, repair, and operating supplies	Quantity (short tons)	Value f.o.b. plant (\$1,000)	Quantity (short tons)	Value f.o.b. plant (\$1,000)	Quantity (short tons)	Value f.o.b. plant (\$1,000)		
ALLOY STEEL (EXCEPT STAINLESS)—Continued													
Finished shapes and forms—Continued													
Bars:													
Hot-rolled.....	115,789	1,252,215	93,901	52,116	1,384	1,192,103	241,192	1,055,874	214,504	136,229	26,688		
Cold-finished.....	32	163,571	(D)	-	33	158,763	58,941	146,217	54,064	12,546	4,877		
Tool steel bars:													
High speed.....	5,486	8,104	(D)	21	87	12,684	33,707	10,956	30,093	1,728	3,614		
Other than high speed.....	705	40,997	570	233	203	41,376	49,609	35,175	42,501	6,201	7,308		
Pipe and tubes:													
Oil country goods.....	(D)	240,713	-	(D)	-	473,879	190,690	202,503	57,817	112,472	44,775		
Pressure tubing.....	112	39,809	120	(D)	(D)	32	34,267	123,455	63,926	-	-		
Mechanical tubing.....	46,070	302,038	32,879	-	(D)	-	1,182	11,003	-	-	-		
Standard, line, and miscellaneous.....	83	6,738	-	(D)	(D)	-	-	-	-	-	-		
Wire.....	1,280	42,412	1,030	7,911	-	33,976	25,154	32,625	24,264	1,351	890		
Other rolled and drawn alloy steel products.....	-	10,466	-	-	-	10,882	9,439	10,882	9,439	-	-		
STAINLESS STEEL													
Ingot.....	46,511	900,793	883,761	4,715	210	49,469	34,352	18,558	18,586	30,911	15,766		
Semifinished shapes and forms:													
Blooms, billets, slabs, and sheet bars.....	166,473	671,326	632,238	398	721	202,581	130,514	38,175	26,945	152,670	90,958		
Tube rounds and wire rods.....	28,507	47,201	43,973	-	23	-	-	11,736	12,611	-	-		
Finished shapes and forms:													
Plates.....	4,250	37,178	4,127	6,993	143	33,112	41,120	33,112	41,120	-	-		
Sheet and strip:													
Sheet:													
Hot-rolled.....	103,096	86,686	61,686	(D)	(D)	108,214	65,148	38,127	36,562	70,087	28,586		
Cold-rolled.....	8,144	101,687	5,761	75	175	97,722	121,382	297,722	212,1382	( <sup>2</sup> )	( <sup>2</sup> )		
Strip:													
Hot-rolled.....	78,914	79,470	75,917	-	-	80,358	54,914	280,358	254,914	( <sup>2</sup> )	( <sup>2</sup> )		
Cold-rolled.....	12,796	190,125	17,515	4,253	19	179,503	188,822	166,810	179,221	12,693	9,601		
Bars:													
Hot-rolled.....	7,037	38,531	4,619	494	86	39,741	49,208	32,395	41,555	7,346	7,653		
Cold-finished.....	403	47,469	(D)	(D)	(D)	46,946	61,647	45,587	59,669	1,359	1,978		
Pipe and tubes:													
Pressure tubing.....	532	17,941	601	34	-	18,333	52,949	218,333	252,949	( <sup>2</sup> )	( <sup>2</sup> )		
Mechanical tubing.....	4,006	9,803	2,821	-	-	10,858	43,744	210,858	243,744	( <sup>2</sup> )	( <sup>2</sup> )		
Wire.....	1,266	29,545	737	(D)	(D)	29,384	48,242	28,632	46,542	752	1,700		
Other rolled and drawn stainless steel products.....	180	10,059	65	(D)	(D)	10,217	12,428	10,217	12,428	-	-		

Source: Current Industrial Reports (previously identified as Facts for Industry Series) M33B, Steel Mill Products.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>Excludes receipts and shipments of steel processed on a conversion basis for nonsteel producing companies.<sup>2</sup>Transfers to other plants of the same company are included with shipments to other companies.<sup>3</sup>Represents the quantity and value of shipments by steel works and wire drawing plants. Total shipments of these products by all establishments in 1958 are shown in Table 6A.<sup>4</sup>Probably includes some tonnage which in the census of manufactures was more specifically reported as, "composite strand, rope and cable (except ACSR)."

TABLE 6A-4. Steel Mill Products—Net Shipments: 1958 to 1963

Product	Net shipments <sup>1</sup>					
	1963	1962	1961	1960	1959	1958
ALL GRADES, TOTAL.....	75,391,424	70,731,719	66,159,568	70,420,492	69,382,429	60,557,879
Carbon steel, total.....	69,178,352	65,204,090	61,371,300	65,370,521	64,053,457	56,676,520
Ingots and semifinished shapes and forms (blooms, billets, etc.)	1,708,463	1,540,086	815,116	1,310,553	1,496,118	1,156,263
Finished shapes and forms:						
Plates:						
Floor plates.....	160,594	157,176	144,033	175,248	143,949	148,313
Plates, other than floor plates.....	6,261,737	5,400,081	5,131,686	5,227,141	5,040,847	4,913,531
Structural shapes.....	4,799,592	4,384,246	4,377,870	5,216,974	4,670,267	4,479,132
Sheet piling.....	179,127	214,982	204,631			
Bearing piles.....	217,413	149,768	181,061			
Sheets and strip:						
Sheet:						
Hot-rolled and enameling.....	8,167,659	7,413,501	7,063,258	7,618,583	7,816,317	6,119,513
Cold-rolled.....	14,154,481	13,315,602	11,912,375	14,136,872	12,425,066	10,194,400
Galvanized.....	3,592,153	3,301,174	3,139,172	2,980,956	2,690,475	2,769,497
Electrical (sheet and strip).....	53,860	41,427	34,187	46,891	49,396	41,269
Long termes.....	327,163	297,986	240,951	183,685	180,888	124,499
Strip:						
Hot-rolled.....	1,199,506	1,218,403	1,167,524	1,323,092	1,261,462	919,440
Cold-rolled.....	1,093,239	923,812	811,630	798,543	867,458	642,772
Galvanized.....	277,979	256,588	244,468	245,697	243,837	197,521
Tin-mill products:						
Tinplate:						
Hot-dipped.....	189,239	176,009	278,481	372,340	400,292	442,609
Electrolytic.....	5,046,423	5,405,836	5,247,680	5,075,415	4,856,672	5,083,113
Terneplate (short termes).....						
Blackplate (including chemically treated).....	406,421	550,136	512,168	546,904	584,119	601,581
Bars:						
Hot-rolled bars (except concrete reinforcing):						
Hollow drill steel.....	5,681,996	5,300,362	4,825,885	5,313,459	5,068,467	4,525,545
All other.....						
Concrete reinforcing bars:						
Rolled from new billets.....	2,915,599	2,333,334	2,535,639	2,196,189	2,133,725	2,408,574
Rolled from old materials (rails, axles, etc.).....	167,427	405,921	221,837	181,793	154,252	
Cold-finished bars.....	1,307,933	1,246,202	1,071,816	1,213,457	1,271,245	933,526
Tool steel bars.....	8,766	8,852	8,502	8,971	10,159	6,833
Pipe and tubes:						
Standard pipe.....	2,269,537	2,025,377	2,125,657	2,089,878	2,264,208	2,222,942
Line pipe.....	1,925,468	2,208,495	2,414,755	2,467,299	2,560,114	2,393,687
Oil country goods.....	1,170,506	1,172,487	1,262,647	905,306	1,645,945	895,864
Pressure tubing.....	212,281	211,092	235,774	226,502	227,371	217,373
Mechanical tubing.....	877,212	899,864	761,626	783,833	890,755	614,278
Miscellaneous.....	236,374	250,436	217,593	213,350	194,328	248,449
Wire:						
Plain wire.....	2,154,486	2,019,552	1,978,478	2,056,399	2,322,175	2,034,555
Galvanized wire.....	306,725	348,584	378,452	329,114	375,071	327,865
Other coated wire.....	103,960	110,658	93,383	81,887	97,941	84,066
Wire products: <sup>2</sup>						
Nails and staples.....	339,989	330,678	340,830	338,913	403,850	429,521
Barbed and twisted wire.....	110,772	86,914	74,768	48,701	51,118	57,619
Wire fence, woven and welded.....	131,707	130,583	136,244	111,209	132,041	137,910
Bale ties.....	71,767	73,414	77,381	61,460	53,077	54,999
Wire rope and cable.....	97,712	94,305	88,628	84,751	78,622	77,678
Wire strand.....	96,920	92,328	89,136	71,442	72,373	70,781
Woven wire netting.....	37,829	52,031	48,574	44,422	83,793	49,743
Standard tee rails (over 60 lb. per yard).....	506,908	508,747	424,711	673,532	586,368	529,054
All other rails (light tee, girder, guard, etc.).....	31,363	43,880	43,270	38,614	38,208	39,333
Rail joints and tie plates.....	167,384	122,630	98,451	170,109	185,724	152,117
Wheels, rolled (including tires and rims).....	270,802	246,746	202,040	260,905	251,350	174,944
Other rolled and drawn carbon steel products.....	141,880	135,805	108,932	138,132	174,014	155,809
Alloy steel (except stainless), total.....	5,545,371	4,887,173	4,203,966	4,457,360	4,669,866	3,417,518
Ingots and semifinished shapes and forms (blooms, billets, etc.)	744,433	593,651	583,424	610,103	668,756	512,827

See footnotes at end of table.



TABLE 6A-4. Steel Mill Products—Net Shipments: 1958 to 1963—Continued

Product	Net shipments <sup>1</sup>					
	1963	1962	1961	1960	1959	1958
Alloy steel (except stainless)--Continued						
Finished shapes and forms:						
Plates.....	668,555	614,127	539,795	510,927	355,164	329,117
Structual shapes.....	174,054	57,576				
Sheet and strip:						
Sheet:						
Hot-rolled.....	339,256	253,227	191,285	256,209	287,625	227,079
Electrical.....	317,913	338,408	260,608	3497,187	3540,047	3400,250
Cold-rolled.....	63,953	69,909	81,604	84,403	89,937	56,196
Strip:						
Cold-rolled.....	22,706	15,882	18,695	16,442	16,072	9,995
Hot-rolled.....	39,874	28,460	20,485	22,083	21,641	25,577
Electrical.....	243,538	249,219	260,509	(3)	(3)	(3)
Bars:						
Hot-rolled.....	1,819,538	1,683,690	1,385,813	1,489,661	1,585,554	1,129,814
Cold-rolled.....	212,433	224,245	195,626	244,120	236,818	158,764
Tool steel bars:						
High speed.....	15,465	13,521	10,326	11,282	12,262	7,306
Other than high speed.....	49,027	52,093	45,733	52,050	57,242	41,107
Pipe and tubes:						
Oil country goods.....	299,305	308,598	288,470	260,270	339,197	427,993
Pressure tubing.....	38,288	41,059	39,875	39,026	43,538	
Mechanical tubing.....	304,958	279,135	216,706	220,250	296,230	
Line pipe.....	114,654	7,199	5,761	10,828	7,327	
Standard and miscellaneous.....	6,654					
Wire.....	58,090	47,457	43,467	49,921	50,963	40,607
Other rolled and drawn alloy steel products.....	12,677	9,717	15,784	12,790	14,136	10,882
Stainless steel, total.....	667,701	640,456	584,302	592,611	659,106	463,841
Ingots and semifinished shapes and forms (blooms, billets,etc.)	34,329	46,249	40,856	36,236	59,210	16,626
Finished shapes and forms:						
Sheet and strip:						
Sheet:						
Cold-rolled.....	149,308	144,748	126,096	119,270	130,119	89,828
Hot-rolled.....	4,541	7,145	14,825	33,125	25,145	5,998
Strip:						
Hot-rolled.....	31,475					
Cold-rolled.....	209,909	203,872	187,309	186,769	222,416	170,979
Plates.....	55,523	47,030	43,404	49,016	41,173	35,998
Bars:						
Hot-rolled.....	48,381	52,068	45,413	49,556	50,472	33,284
Cold-finished.....	72,416	73,691	66,821	60,740	66,921	46,566
Pipes and tubes:						
Pressure tubing.....	20,409	20,779	23,179	23,518	17,646	17,835
Mechanical tubing.....	11,385	10,557	7,213	7,089	8,522	6,852
Wire.....	28,896	33,017	25,820	23,273	33,460	28,354
Other rolled and drawn stainless steel products.....	1,129	1,300	3,366	3,676	3,546	10,077

Source: Current Industrial Reports Series M33B, Steel Mill Products.

<sup>1</sup>Derived by subtracting the steel mills' receipts of each steel mill shape from the total of shipments to other companies, transfers to other plants, and tonnage consumed in steel mills in the production of fabricated products and as maintenance, repair, and operating supplies. For practical purposes, net shipments amount to zero for some products. Due to material in transit, this results in negative figures for a few items. Where products are grouped together for calculation of net shipments, some of the individual products within the group may represent negative figures. In such cases, the negative figures for the individual products were subtracted from the net shipments of the other products and an overall net shipments total is shown.

<sup>2</sup>Represents wire products produced within steel works and wire drawing establishments.

<sup>3</sup>Electrical strip is included with electrical sheet.

TABLE 6A-5. Pig Iron Shipped from Blast Furnaces—Quantity and Value: 1963 and 1958

Product	Total shipments including interplant transfers			
	1963		1958	
	Quantity (short tons)	Value (\$1,000)	Quantity (short tons)	Value (\$1,000)
Pig iron, total reported in the census.....	170,741,114	(NA)	157,050,000	(NA)
Pig iron, by grade: <sup>2</sup>				
Total.....	72,211,000	4,222,468	56,917,937	3,392,308
Foundry.....	1,657,000	92,156	1,619,453	92,387
Basic.....	65,062,000	3,803,535	47,674,412	2,847,545
Bessemer.....	2,821,000	171,317	3,701,059	218,973
Low-phosphorus.....	173,000	10,554	1,363,387	78,283
Malleable.....	2,299,000	135,070	2,302,762	140,629
All other (not ferroalloys).....	199,000	9,836	256,864	14,491

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>Represents total production.

<sup>2</sup>Source: Bureau of Mines, Department of Interior.

TABLE 6A-6. Ferroalloys Shipped by All Producers—Quantity and Value: 1963 and 1958

Product	Total shipments including interplant transfers			
	1963		1958	
	Quantity (short tons)	Value (\$1,000)	Quantity (short tons)	Value (\$1,000)
Ferroalloys and other additives reported in the census, total <sup>1</sup> .....	2,143,962	(NA)	1,752,999	(NA)
Ferroalloys, by grade: <sup>2</sup>				
Total.....	2,089,078	388,426	1,695,497	424,044
Ferromanganese.....	802,113	125,076	608,099	145,647
Ferrosilicon.....	448,008	76,555	319,791	54,879
Ferrophosphorus.....	77,827	2,877	75,124	3,253
Ferrotitanium.....	3,058	2,536	4,612	3,294
Silvery iron.....	202,076	16,053	224,521	18,257
Ferrochromium.....	314,726	82,222	307,121	130,159
Silicomanganese.....	154,836	24,910	82,013	20,638
Other.....	86,434	58,197	74,216	47,917

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>Represents total production.

<sup>2</sup>Source: Bureau of Mines, Department of Interior.



**TABLE 6A-7. Steel Ingots—Production, by Grade of Steel and Geographic Areas:  
1963 and 1958**

(Short tons)

Geographic area	1963			1958		
	Total all grades	Carbon	Alloy and stainless	Total all grades	Carbon	Alloy and stainless
United States, total.....	109,010,618	98,845,947	10,164,671	85,148,773	78,578,866	6,569,907
Northeast.....	30,723,933	(D)	(D)	25,109,319	(D)	(D)
Pennsylvania.....	25,036,409	21,145,752	3,890,657	20,791,709	18,067,536	2,724,173
Rhode Island, Connecticut, New York, and New Jersey.....	5,687,524	(D)	(D)	4,317,610	(D)	(D)
East North Central.....	52,173,822	47,446,570	4,727,252	37,886,401	34,903,423	2,982,978
Ohio.....	18,781,056	16,594,667	2,186,389	13,789,724	12,279,676	1,510,048
Indiana.....	15,552,933	14,708,082	844,851	12,617,698	12,189,517	428,181
Illinois.....	9,290,945	8,271,847	1,019,098	6,911,195	6,375,438	535,757
Michigan <sup>1</sup> .....	8,548,888	7,871,974	676,914	4,567,784	4,058,792	508,992
South.....	17,839,504	17,212,166	627,338	15,128,805	(D)	(D)
Kentucky, Alabama, and Mississippi.....	5,292,086	4,915,417	376,669	4,538,957	4,397,679	141,278
Delaware, Maryland, Virginia, West Virginia, Georgia, Florida, Oklahoma, and Texas.....	12,547,418	12,296,749	250,669	10,589,848	(D)	(D)
West North Central and Mountain.....	4,539,951	(D)	(D)	4,145,383	(D)	(D)
Pacific.....	3,733,408	3,579,501	153,907	2,878,863	(D)	(D)
California.....	3,299,766	(D)	(D)	2,575,140	2,508,561	66,579
Washington, Oregon, and Hawaii <sup>2</sup> .....	433,642	(D)	(D)	303,723	(D)	(D)

Source: Annual Survey Form MA-33B, Steel Mill Products.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>Includes Wisconsin for 1958.<sup>2</sup>Excludes Hawaii for 1958.

TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products, Shipped by All Producers: 1963 and 1958

Product code	Product and year	Indexes (1954 = 100)		Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value			Production	Unit value
331--	Steel rolling and finishing <sup>1</sup> .....1963..	118	120	3313-33121pt	Electrometallurgical products <sup>2</sup> —Continued		
	1958..	96	123				
3312-	Blast furnace (including coke oven), steel works and rolling mill products <sup>1</sup> .....1963..	118	120	33133	Ferrosilicon <sup>2</sup> .....1963..	168	119
	1958..	95	123	33134	Other ferroalloys <sup>2</sup> .....1963..	124	114
					1958..	109	116
33121 } 3313 pt }	Coke oven, blast furnace, and electro-metallurgical products <sup>1</sup> .....1963..	117	105	3315-	Steel wire drawing.....1963..	99	123
	1958..	96	115		1958..	94	122
33122	Steel ingot and semifinished shapes <sup>1</sup> .....1963..	123	122	33151	Noninsulated ferrous wire rope, cable, and strand.....1963..	120	102
	1958..	96	124		1958..	106	106
33123	Tin mill products, hot rolled sheet and strip.....1963..	122	120	33152	Steel nails and spikes.....1963..	70	146
	1958..	99	120		1958..	88	122
33124	Hot rolled bars and bar shapes, plates.....1963..	127	125	33155 } 33125 }	Steelwire <sup>1</sup> .....1963..	111	126
	1958..	97	130		1958..	102	127
33125 } 33155 }	Steel wire <sup>1</sup> .....1963..	111	126	33156	Fencing and fence gates.....1963..	81	145
	1958..	102	127		1958..	76	141
33126 } 33176 }	Steel pipe and tube <sup>1</sup> .....1963..	99	120	33157	Wire cloth and other woven wire products.....1963..	78	125
	1958..	90	127		1958..	82	120
33127 } 33167 }	Cold-rolled steel sheet and strip <sup>1</sup> .....1963..	139	125	33159	Other fabricated ferrous wire products (except springs).....1963..	139	119
	1958..	104	124		1958..	102	125
33128 } 33168 }	Cold-finished steel bars, and bar shapes <sup>1</sup> .....1963..	132	130	3316-	Cold-finishing of steel shapes <sup>1</sup> .....1963..	138	126
	1958..	94	129		1958..	103	125
33129 } 33919 }	Press and hammer steel forgings <sup>1</sup> .....1963..	74	141	33167 } 33127 }	Cold-rolled steel sheet and strip <sup>1</sup> .....1963..	139	125
	1958..	87	135		1958..	104	124
3313-33121 pt. }	Electrometallurgical products <sup>2</sup> .....1963..	126	89	33168 } 33128 }	Cold-finished steel bars (except concrete reinforcing) <sup>1</sup> .....1963..	132	130
	1958..	105	117		1958..	94	129
33131	Ferromanganese <sup>2</sup> .....1963..	100	69	3317-	Welded and heavy-riveted steel pipe <sup>1</sup> .....1963..	99	120
	1958..	76	107		1958..	90	127
33132	Ferrochrome <sup>2</sup> .....1963..	168	67	33176 } 33126 }	Welded and heavy-riveted steel pipe <sup>1</sup> .....1963..	99	120
	1958..	163	109		1958..	90	127

<sup>1</sup>These indexes have been computed on a "wherever-made" basis--that is, they reflect the shipments and production reported by mills operating rolling and finishing facilities but no steel furnaces, as well as by steel mills (industry 3312 establishments). In the case of product classes 33121 and 33122, the production indexes have been independently derived from production data while the unit value indexes have been determined in the usual manner by reference to shipments detail.

<sup>2</sup>These indexes are based on shipments data reported by the Bureau of Mines, Department of Interior. (Table 6A-6 presents the 1963 and 1958 detail relative to these ferroalloys used in the computation of these indexes.)



TABLE 6C. Product Classes—Value Shipped by All Manufacturing Establishments, 1947, 1954, 1958 to 1963

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3312-	Blast furnaces and steel mills <sup>2</sup> .....	17,553,735	16,462,035	15,697,143	16,580,382	16,295,776	(NA)	(NA)	(NA)
33121	Coke oven and blast furnace products, including selected ferroalloys produced in other furnaces (except ferrochrome and ferrosilicon).....								
33131									
33134									
33122		1,484,920	1,356,206	1,386,412	1,485,638	1,511,390	(NA)	(NA)	(NA)
33123	Steel ingot and semifinished shapes.....	2,034,695	2,017,447	2,197,106	2,008,664	2,153,930	1,846,924	1,668,534	434,434
33123	Hot rolled sheet and strip, including tin mill products.....	3,969,289	2,373,490	2,342,779	2,363,507	2,315,251	3,169,294	2,568,616	1,441,402
33124	Hot rolled bars and bar shapes, plates, structural shapes and piling.....	3,667,698	2,358,780	2,315,704	2,392,941	2,312,538	2,879,672	2,298,809	(NA)
33125	Steel wire.....								
33155		621,566	260,129	257,447	259,139	266,170	564,734	464,992	313,793
33126									
33176									
33127	Steel pipe and tube.....								
33167		1,887,495	2,182,447	2,181,786	2,177,430	2,091,714	1,723,643	1,551,131	841,875
33127									
33167									
33128	Cold rolled steel sheet and strip (exclude tin mill products).....	2,872,901	2,664,168	2,431,629	2,774,524	2,587,084	2,091,623	1,642,491	804,122
33168	Cold finished steel bars and bar shapes.....	472,745	246,343	240,451	244,486	246,126	338,924	277,078	200,278
33129	Press and hammer steel forgings (made in steel mills) <sup>3</sup> .....	316,668	260,000	240,785	251,263	235,205	234,641	188,323	127,984
33120	Blast furnaces and steel mills, n.s.k.....	225,760	175,866	162,044	213,914	214,368	198,515	241,592	(NA)
3313-	Electrometallurgical products.....	411,580	(NA)	(NA)	(NA)	(NA)	468,177	368,342	225,993
33132	Ferrochrome.....								
33131		85,313	81,158	94,413	90,677	114,933	(NA)	(NA)	(NA)
33121 pt.									
33134									
33121 pt.	Other ferroalloys.....								
33121 pt.		246,401	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
33133									
33130									
33130	Ferrosilicon.....	78,092	78,947	81,284	68,494	78,306	(NA)	(NA)	(NA)
33130	Electrometallurgical products, n.s.k.....	1,774	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
3315-	Steel wire, drawing, etc.....	1,672,445	(NA)	(NA)	(NA)	(NA)	1,490,977	1,242,978	(NA)
33151	Noninsulated ferrous wire rope, cable, and strand.....								
34811		189,934	190,553	178,689	185,228	190,913	163,386	193,944	128,338
33152		153,085	138,737	131,955	132,680	153,622	159,363	147,677	121,692
33155		619,424	260,129	257,447	259,139	266,170	564,734	464,992	313,793
33156	Fencing and fence gates.....								
34816		115,480	111,200	113,065	103,530	111,355	103,309	92,909	63,297
33157									
34814									
33157	Wire cloth and other woven wire products.....								
34814		72,328	(NA)	(NA)	(NA)	(NA)	96,899	80,151	(NA)
33159									
34819									
33159	Other fabricated ferrous wire products (except springs).....								
34819		501,529	467,407	453,458	431,233	445,835	405,656	313,382	214,690
33150		20,667	(11,395)	(9,576)	(8,909)	(6,658)	6,092	994	(NA)
33150									
3316-	Cold finished sheet, strip and bars.....	3,332,558	3,130,511	2,839,080	3,223,010	3,055,210	2,430,547	1,919,569	1,004,440
3317-	Steel pipe and tube.....	1,887,495	2,182,447	2,181,786	2,177,430	2,091,714	1,723,643	1,551,131	841,875

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Source: Current Industrial Reports Series M33D, Steel Mill Products.

<sup>3</sup>Includes total for product class 33919, Open die hammer and press forgings (produced from purchased materials), which is primary to 3391.

**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>			1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
<b>OTHER STEEL MILL PRODUCTS, EXCEPT WIRE PRODUCTS (33120)</b>			<b>HOT ROLLED BARS AND BAR SHAPES, PLATES, STRUCTURAL SHAPES AND PILING (33124)</b>			<b>COLD ROLLED STEEL SHEET AND STRIP (33127 AND 33167)</b>		
United States, total....	225,760		United States, total....	3,667,698	2,879,672	United States, total....	2,872,901	2,091,623
Northeast.....	95,262		Middle Atlantic.....	1,392,195	1,161,078	New England.....	82,923	53,724
New York.....	12,101		Pennsylvania.....	1,116,799	935,006	Connecticut.....	64,488	37,996
Pennsylvania.....	80,748		East North Central.....	1,482,321	1,034,237	Middle Atlantic.....	714,284	573,677
North Central.....	50,315		Ohio.....	376,169	259,168	New York.....	167,036	( <sup>2</sup> )
Ohio.....	13,556		Indiana.....	525,351	( <sup>2</sup> )	New Jersey.....	21,002	( <sup>2</sup> )
South and West.....	80,183		Illinois.....	511,239	374,626	Pennsylvania.....	526,246	446,180
<b>COKE OVEN AND BLAST FURNACE PRODUCTS, AND SELECTED ELECTROMETALLURGICAL PRODUCTS (EXCLUDES FERRO-CHROME AND FERROSILICON) (33121, 33131, AND 33134)</b>			Michigan.....	69,562	( <sup>2</sup> )	North Central.....	1,749,565	( <sup>2</sup> )
United States, total....	1,484,920		South Atlantic.....	221,300	177,098	Ohio.....	775,491	529,221
Northeast.....	643,379		East South Central.....	205,022	118,828	Indiana.....	438,585	298,249
New York.....	85,083		Alabama.....	187,161	109,280	Michigan.....	478,935	290,578
Pennsylvania.....	529,702		West South Central.....	101,363	66,629	South Atlantic.....	204,490	187,704
North Central.....	529,759		Pacific.....	161,803	194,608	Pacific.....	39,130	32,089
Ohio.....	193,937		California.....	129,957	166,506	California.....	39,130	32,089
Indiana.....	55,651		All other divisions.....	103,694	( <sup>2</sup> )	All other divisions.....	82,509	31,244,429
Illinois.....	53,085		<b>STEEL WIRE (33125 AND 33155)</b>			<b>COLD FINISHED STEEL BARS AND BAR SHAPES (33128 AND 33168)</b>		
Michigan.....	199,133		United States, total....	621,566	564,734	United States, total....	472,745	338,924
South.....	280,476		New England.....	59,327	54,991	New England.....	24,536	11,247
Virginia.....	6,816		Massachusetts.....	43,793	47,677	Massachusetts.....	4,696	( <sup>2</sup> )
West Virginia.....	59,033		Middle Atlantic.....	187,136	182,744	Connecticut.....	19,840	( <sup>2</sup> )
Kentucky.....	32,446		New York.....	25,899	29,775	Middle Atlantic.....	191,826	139,275
Tennessee.....	28,151		New Jersey.....	46,022	41,322	Pennsylvania.....	138,789	97,529
Alabama.....	139,275		Pennsylvania.....	115,215	111,647	East North Central.....	223,592	170,986
Mountain.....	9,836		East North Central.....	271,189	222,396	Ohio.....	69,188	51,775
Pacific.....	21,470		Ohio.....	64,754	58,183	Indiana.....	71,390	54,024
<b>STEEL INGOT AND SEMI-FINISHED SHAPES (33122)</b>			Indiana.....	38,752	29,132	Illinois.....	53,854	38,627
United States, total....	2,034,695	1,846,924	Illinois.....	141,218	117,142	South.....	18,812	( <sup>2</sup> )
New England.....	26,138	( <sup>2</sup> )	Michigan.....	25,617	( <sup>2</sup> )	West.....	13,979	( <sup>2</sup> )
Middle Atlantic.....	804,533	635,460	Wisconsin.....	848	( <sup>2</sup> )	<b>OPEN DIE HAMMER AND PRESS FORGINGS (33129 AND 33919)</b>		
Pennsylvania.....	732,710	579,595	South Atlantic.....	51,369	42,990	United States, total....	316,668	234,641
East North Central.....	1,038,148	933,010	Florida.....	5,854	( <sup>2</sup> )	Northeast.....	176,798	176,428
Ohio.....	516,735	419,116	Pacific.....	22,630	28,788	Massachusetts.....	1,419	( <sup>2</sup> )
Michigan.....	10,817	( <sup>2</sup> )	California.....	22,630	28,788	New York.....	17,205	18,673
South Atlantic.....	43,891	( <sup>2</sup> )	All other divisions.....	29,915	32,825	Pennsylvania.....	147,129	144,746
East South Central.....	42,036	142,825	<b>STEEL PIPES AND TUBES (33126 AND 33176)</b>			North Central.....	116,829	( <sup>2</sup> )
Pacific.....	10,243	10,671	United States, total....	1,887,495	1,723,643	Ohio.....	43,391	10,300
All other divisions.....	69,706	( <sup>2</sup> )	New England.....	4,935	2,942	Illinois.....	15,820	12,244
<b>TIN MILL PRODUCTS; HOT ROLLED SHEET AND STRIP (33123)</b>			Middle Atlantic.....	648,316	601,797	Michigan.....	49,628	10,678
United States, total....	3,969,289	3,169,294	New York.....	29,204	25,077	South.....	5,600	( <sup>2</sup> )
Middle Atlantic.....	807,446	606,395	New Jersey.....	26,896	27,860	Texas.....	4,126	( <sup>2</sup> )
East North Central.....	1,912,297	1,455,373	Pennsylvania.....	592,216	548,860	West.....	17,441	( <sup>2</sup> )
Ohio.....	646,230	554,756	East North Central.....	831,239	716,615	California.....	14,981	12,658
Indiana.....	638,112	548,840	Ohio.....	532,725	453,051	<b>NONINSULATED FERROUS WIRE ROPE, CABLE AND STRAND (33151 AND 34811)</b>		
East South Central.....	327,887	( <sup>2</sup> )	Indiana.....	86,213	( <sup>2</sup> )	United States, total....	189,934	163,386
All other divisions.....	921,659	( <sup>2</sup> )	Illinois.....	82,582	60,298	New England.....	16,818	2,694
			Michigan.....	70,693	49,111	Middle Atlantic.....	85,325	72,294
			Wisconsin.....	59,026	( <sup>2</sup> )	New York.....	8,130	2,587
			West North Central.....	7,060	( <sup>2</sup> )	New Jersey.....	33,445	29,037
			East South Central.....	48,364	54,873	Pennsylvania.....	43,750	40,670
			Alabama.....	26,697	( <sup>2</sup> )			
			West South Central.....	122,639	116,235			
			Pacific.....	92,583	95,777			
			All other divisions.....	132,359	135,404			

See footnotes at end of table.



TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
NONINSULATED FERROUS WIRE ROPE, CABLE AND STRAND (33151 AND 34811)—Continued			FENCING AND FENCE GATES (33156 AND 34816)—Con.			OTHER FABRICATED WIRE PRODUCTS (33159 AND 34819)		
East North Central.....	30,211	22,430	Middle Atlantic.....	5,521	12,247	United States, total....	501,529	405,656
Ohio.....	2,547	4,100	New York.....	1,364	3,677	New England.....	27,349	22,854
Michigan.....	1,725	( <sup>2</sup> )	Pennsylvania.....	3,224	8,347	Massachusetts.....	9,551	10,016
South Atlantic.....	10,320	9,188	East North Central.....	43,355	35,761	Connecticut.....	16,474	11,812
West South Central.....	3,117	( <sup>2</sup> )	Ohio.....	8,029	2,160	Middle Atlantic.....	150,329	138,115
Texas.....	3,117	( <sup>2</sup> )	Indiana.....	5,522	( <sup>2</sup> )	New York.....	44,907	45,598
Pacific.....	17,434	12,217	Illinois.....	28,396	25,143	New Jersey.....	23,304	11,007
All other divisions.....	26,709	44,563	West North Central.....	11,582	9,803	Pennsylvania.....	82,118	81,510
STEEL NAILS AND SPIKES (33152)			South Atlantic.....	13,413	( <sup>2</sup> )	East North Central.....	163,610	131,393
United States, total....	153,085	159,363	West South Central.....	18,572	( <sup>2</sup> )	Ohio.....	24,015	22,819
New England.....	20,315	22,034	Texas.....	15,930	12,354	Indiana.....	27,096	26,068
Massachusetts.....	5,795	9,735	Pacific.....	12,541	( <sup>2</sup> )	Illinois.....	77,642	55,943
Middle Atlantic.....	19,942	22,429	California.....	12,423	11,906	Michigan.....	29,371	22,286
New York.....	9,868	3,436	All other divisions.....	6,719	( <sup>2</sup> )	Wisconsin.....	5,486	4,277
North Central.....	79,499	69,803	FERROUS WIRE CLOTH AND OTHER WOVEN FERROUS WIRE PRODUCTS (33157 AND 34814)			West North Central.....	42,938	35,246
Ohio.....	11,241	6,455	United States, total....		72,328	Minnesota.....	8,221	7,983
Indiana.....	11,380	( <sup>2</sup> )	New England.....		9,168	Iowa.....	8,002	4,368
Illinois.....	48,706	40,232	Massachusetts.....		4,917	Missouri.....	22,339	19,027
South.....	20,536	20,145	Middle Atlantic.....		16,589	Kansas.....	3,011	( <sup>2</sup> )
West.....	12,793	24,949	New York.....		6,035	South Atlantic.....	24,026	14,639
FENCING AND FENCE GATES (33156 AND 34816)			Pennsylvania.....		10,221	Maryland.....	12,131	7,054
United States, total....	115,480	103,309	East North Central.....		24,279	North Carolina.....	1,658	( <sup>2</sup> )
New England.....	3,777	4,463	Ohio.....		7,778	Georgia.....	2,869	2,169
			Illinois.....		12,393	Florida.....	4,502	3,969
			East South Central.....		4,379	East South Central.....	23,754	15,220
			Pacific.....		7,257	Tennessee.....	8,891	5,873
			All other divisions.....		10,656	Alabama.....	13,817	9,170
						West South Central.....	20,162	13,315
						Arkansas.....	1,022	( <sup>2</sup> )
						Texas.....	11,653	7,312
						Mountain.....	15,900	11,836
						Pacific.....	33,461	23,038
						Washington.....	2,177	1,688
						California.....	31,052	21,055

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million reported.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 33120, Massachusetts, Indiana, Illinois, Missouri, Delaware, West Virginia, Alabama, Texas, Colorado, and California; 33121, 33131, and 33134, Connecticut, New Jersey, Wisconsin, Minnesota, Iowa, Missouri, Maryland, Texas, Colorado, Arizona, Utah, Oregon, and California; 33122, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Indiana, Illinois, Minnesota, Missouri, Maryland, West Virginia, Kentucky, Alabama, Texas, Colorado, and California; 33123, Rhode Island, New York, New Jersey, Pennsylvania, Illinois, Michigan, Maryland, West Virginia, Georgia, Kentucky, Alabama, Utah, Washington, and California; 33124, Connecticut, New York, New Jersey, Missouri, Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Mississippi, Oklahoma, Texas, Colorado, Utah, Washington, Oregon, and Hawaii; 33125 and 33155, Rhode Island, Connecticut, Minnesota, Missouri, Maryland, Georgia, Alabama, Texas, and Colorado; 33126 and 33176, Connecticut, Minnesota, Iowa, Missouri, Maryland, West Virginia, Georgia, Kentucky, Tennessee, Mississippi, Louisiana, Texas, Colorado, Utah, Washington, and California; 33127 and 33167, Massachusetts, Rhode Island, Illinois, Maryland, West Virginia, Kentucky, and Alabama; 33128 and 33168, New York, New Jersey, Michigan, Wisconsin, Maryland, Alabama, Texas, Colorado, and California; 33129 and 33919, Connecticut, New Jersey, Indiana, Wisconsin, and Washington; 33151 and 34811, Massachusetts, Connecticut, Indiana, Illinois, Wisconsin, Missouri, Maryland, Virginia, Georgia, Florida, Colorado, Washington, and California; 33152, New Hampshire, Rhode Island, Connecticut, Pennsylvania, Wisconsin, Minnesota, Missouri, Maryland, West Virginia, North Carolina, Georgia, Kentucky, Alabama, Texas, Colorado, and California; 33156 and 34816, Connecticut, Minnesota, Iowa, Missouri, Maryland, Florida, Alabama, Louisiana, Oklahoma, and Colorado; 33157 and 34814, Connecticut, Indiana, Michigan, Missouri, Maryland, Kentucky, Colorado, and Oregon; 33159 and 34819, Rhode Island, Delaware, Louisiana, Oklahoma, and Colorado.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

<sup>3</sup>Includes a total of \$1,166,564 for the East North Central Division.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963									
			Total		Fully integrated works <sup>1</sup>		Partially integrated works with blast furnaces <sup>1</sup>		Partially integrated works without blast furnaces <sup>1</sup>		Nonintegrated works <sup>1</sup>	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
	Materials, containers, and supplies, total.....		(X) 27,983,724	(X) 23,424,787	(X) 2778,219	(X) 21,576,358	(X) 22,204,360					
121120	Coal used in the production of coke.....	Short tons	76,254,475	677,945	57,367,389	522,592	-	-	-	-	18,887,086	155,353
101101	Iron ore, including manganese.....	Gross wt. short tons	113,806,112	1,374,417	76,235,465 (D)	882,465 (D)	16,729,127 (D)	216,925 (D)	1,344,273 (D)	11,785 (D)	19,497,247 (D)	263,242 (D)
331051	Pig iron <sup>3</sup> .....	Short tons	8,682,563	382,000								
999811	Iron and steel purchased scrap (except rails for rerolling).....	...do.....	27,964,575	704,092	12,798,603	302,791	2,729,058	79,969	10,792,440	293,781	1,644,474	27,551
331081	Steel rails for rerolling.....	...do.....	406,742	19,490	-	-	-	-	(D)	(D)	(D)	(D)
	Nonferrous metals, alloys and ferroalloys:											
333401	Aluminum.....	...do.....	54,537	22,770	30,908	12,377	8,269	3,571	11,474	5,115	3,886	1,707
333122	Copper, including both refined, unalloyed and copper-base alloy raw materials.....	...do.....	19,154	11,557	(D)	(D)	1,162	611	1,399	821	(D)	(D)
333348	Zinc.....	...do.....	297,895	71,611	178,076	43,309	(D)	(D)	(D)	(D)	68,892	16,111
331312	Ferromanganese <sup>4</sup> .....	...do.....	771,431	131,374	492,676	84,136	106,320	18,788	761,887	26,686	10,548	1,764
331320	Ferrochromium.....	...do.....	231,306	64,985	(D)	(D)	67,183	18,052	132,277	35,989	(D)	(D)
331330	Ferrosilicon.....	...do.....	208,729	32,409	93,585	11,872	32,049	5,962	80,087	14,092	3,008	483
331340	Spiegeleisen <sup>5</sup> .....	...do.....	23,213	2,156	11,063	943	(D)	(D)	7,126	729	(D)	(D)
331342	Other ferroalloys, including ferrotungsten, silvery iron and ferro-nickel <sup>6</sup> .....	...do.....	193,802	86,364	105,780	32,062	(D)	(D)	59,936	34,072	(D)	(D)
281930	Sulfuric acid (100 percent H <sub>2</sub> SO <sub>4</sub> ) <sup>7</sup> ..	...do.....	1,175,467	25,079	770,542	16,359	108,436	2,416	94,585	2,145	201,944	4,159
281340	Oxygen (including both high and low purity) <sup>8</sup> .....	1,000 cu. ft.....	78,707,296	74,700	52,544,815	43,359	13,287,414	11,253	11,613,472	18,445	1,261,595	1,643
325501	Clay refractories.....	Short tons	1,565,591	83,423	767,826	43,173	445,476	20,865	307,432	17,418	44,857	1,967
329701	Nonclay refractories.....	...do.....	2,803,010	113,477	2,184,264	80,240	270,156	11,069	305,339	20,601	43,251	1,567
331005	Ingots, semi-finished shapes (blooms, billets, etc.) and other steel shapes received for further processing).....	.....	(X)	1,678,361	(X)	270,605	(X)	31,797	(X)	177,364	(X)	1,198,595
970099	All other materials and components, parts, containers and supplies consumed.....	.....	(X)	92,165,274	(X)	912,435	(X)	317,468	(X)	552,429	(X)	382,942
976000	Materials and components, parts, containers and supplies consumed, n.s.k.....	.....	(X)	262,240	(X)	96,572	(X)	-	(X)	65,879	(X)	99,789

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1958							
			Total		Fully integrated works <sup>1</sup>		Partially integrated works <sup>1</sup>		Nonintegrated works <sup>1</sup>	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3312.—BLAST FURNACES AND STEEL MILLS—Continued							
	Materials, containers, and supplies, total.....		(X)	26,865,454	(X)	( <sup>2</sup> )	(X)	( <sup>2</sup> )	(X)	( <sup>2</sup> )
121111	Coal used in the production of coke.....	Short tons	76,311,465	731,189	57,259,675	552,903	-	-	19,051,790	178,286
101111	Iron ore.....	Gross wt. short tons	97,233,251	1,162,195	67,630,106	804,880	17,039,027	218,675	12,564,118	138,640
106211	Manganese ore (containing 10-percent or more manganese).....	...do.....	852,262	52,648	(D)	(D)	(D)	(D)	(D)	(D)
331251	Pig iron <sup>3</sup> .....	Short tons	5,449,575	264,193	(D)	(D)	3,993,380	200,478	(D)	(D)
941011	Iron and steel scrap except rails for re-rolling (purchased scrap only).....	...do.....	18,282,612	633,118	9,336,141	294,793	8,690,096	328,394	256,375	9,931
331281	Steel rails for rerolling.....	...do.....	529,358	30,190	(X)	(X)	55,511	2,649	473,847	27,541
	Nonferrous metals, alloys and ferroalloys (ingot, pig, shot, etc.):									
333411	Aluminum.....	...do.....	35,028	14,875	20,145	7,988	(D)	(D)	(D)	(D)
333925	Nickel.....	...do.....	42,022	58,758	(D)	(D)	36,825	50,990	(D)	(D)
333311	Zinc.....	...do.....	247,076	50,483	138,258	29,501	(D)	(D)	(D)	(D)
331311	Ferromanganese <sup>4</sup> .....	...do.....	620,241	158,793	432,957	110,814	187,284	47,979	-	-
331312	Spiegeleisen <sup>5</sup> .....	...do.....	22,422	2,232	11,165	1,121	11,257	1,111	-	-
331314	Ferrosilicon (over 6 percent silicon)..	...do.....	186,377	32,475	91,056	14,785	95,321	17,690	-	-
331315	Ferrotungsten.....	...do.....	650	2,223	(D)	(D)	(D)	(D)	-	-
331316	Ferrochromium.....	...do.....	180,563	73,863	24,051	9,426	156,512	64,437	-	-
331313	Other ferroalloys.....	...do.....	(NA)	62,048	(NA)	23,394	(NA)	38,654	-	-
331317										
331318										
281111	Sulfuric acid (100 percent H <sub>2</sub> SO <sub>4</sub> ) <sup>7</sup> .....	...do.....	1,109,403	(NA)	691,509	(NA)	169,297	(NA)	248,597	5,491
331205	Ingots, semifinished shapes and other steel shapes purchased for further processing.....		(X)	1,715,465	(X)	221,469	(X)	220,966	(X)	1,273,030
970099	All other materials, containers and supplies.....		(X)	1,795,703	(X)	( <sup>2</sup> )	(X)	( <sup>2</sup> )	(X)	( <sup>2</sup> )
976000	Materials, containers and supplies,n.s.k.		(X)	25,003	(X)	-	(X)	4,895	(X)	20,108

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3313.—ELECTROMETALLURGICAL PRODUCTS			
	Materials, containers, and supplies, total.....		(X)	175,848	(X)	188,682
106220	Manganese ore.....	Gross wt. short tons.....	452,125	15,865	505,391	25,695
325501	Clay refractories.....	Short tons.....	9,187	636	(NA)	(NA)
329701	Nonclay refractories.....	...do.....	18,177	953	(NA)	(NA)
	Ferroalloys:					
331312	Ferromanganese.....	...do.....	18,709	1,613	(NA)	(NA)
331330	Ferrosilicon.....	...do.....	1,674	212	(NA)	(NA)
331342	Other ferroalloys.....	...do.....	43,878	8,627	(NA)	(NA)
999811	Iron and steel purchased scrap.....	...do.....	379,492	9,683	296,296	6,198
970099	All other materials, parts and supplies.....		(X)	135,261	(X)	156,989
976000	Materials, parts and supplies, n.s.k.....		(X)	2,998	(X)	-
			INDUSTRY 3315.—STEEL WIRE DRAWING, ETC.			
	Materials, containers, and supplies, total.....		(X)	313,528	(X)	245,303
	Nonferrous metals, alloys, and ferroalloys:					
333122	Copper, including both refined unalloyed and copper-base alloy raw material.....	Short tons.....	581	537	(NA)	(NA)
333975	Tin.....	...do.....	403	479	(NA)	(NA)
333232	Lead.....	...do.....	2,068	464	(NA)	(NA)
333348	Zinc.....	...do.....	8,206	1,616	(NA)	(NA)
281930	Sulfuric acid (100 percent H <sub>2</sub> SO <sub>4</sub> ).....	...do.....	24,321	1,437	(NA)	(NA)
	Steel for drawing wire:					
	Rods:					
331061	Carbon steel.....	...do.....	966,725	143,707	852,130	126,420
331063	Alloy steel (except stainless).....	...do.....	41,700	11,581	12,123	3,669
331065	Stainless steel.....	...do.....	8,987	9,697	6,012	6,859

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3315.—STEEL WIRE DRAWING, ETC.—Continued			
	Steel for drawing wire—Continued					
	Wire for redrawing:					
331073	Carbon steel.....	Short tons.....	82,285	25,874	44,803	12,952
331075	Alloy steel (except stainless).....	...do.....	2,783	2,665	4,809	6,598
331077	Stainless steel.....	...do.....	971	1,482		
331079	Other steel mill shapes for drawing wire.....	...do.....	6,790	1,158	(NA)	(NA)
331005	Ingots, semifinished shapes (blooms, billets, etc.) and other steel shapes received for further process, except for drawing wire	.....	(X)	28,684	(X)	12,875
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	58,103	(X)	59,770
	Materials, n.s.k. <sup>10</sup> .....	.....	(X)	26,044	(X)	16,160

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>For definition of subindustries see footnote 6, table 1.

<sup>2</sup>Total cost of materials, etc., contains extensive duplication. This duplication arises because the products of some establishments are used as materials by other establishments in the same industry. For the industry as a whole the extent of this duplication is approximated by totaling the cost of pig iron, ingots, and semifinished shapes purchased for further processing. Estimated unduplicated cost of materials obtained by this method is \$5,923 million. The comparable 1958 figure was \$4,886 million. The extent of duplication for subindustries cannot be measured accurately because such purchases cross subindustry lines.

<sup>3</sup>In addition, pig iron produced and consumed in the same establishment was 56,369 thousand short tons. In 1958, the comparable figure was 47,499 thousand short tons. For 1963, the combined total for partially integrated works including both those with and those without blast furnaces were 6,645,431 short tons at a delivered cost of \$304,625 thousand.

<sup>4</sup>In addition, 55,510 short tons of ferromanganese were produced and consumed in the same establishment. The comparable figure for 1958 was 59,408 short tons.

<sup>5</sup>Excludes spiegeleisen produced and consumed in the same establishment.

<sup>6</sup>In addition, 15,572 short tons of other ferroalloys were produced and consumed in the same establishment.

<sup>7</sup>For 1963, excludes sulfuric acid produced and consumed in the same establishment. For 1958, includes sulfuric acid produced and consumed in the same establishment.

<sup>8</sup>In addition 9,613,198 thousand cubic feet of oxygen were produced and consumed in the same establishment.

<sup>9</sup>For 1963, includes cost of manganese ore and nickel. For 1958, includes cost of sulfuric acid, copper, and oxygen.

<sup>10</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for establishments which failed to report the costs of individual materials on "standard forms" and (c) discrepancies between total cost of materials and detailed materials on the reports for other establishments.



**TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962**

Item	Blast furnaces and steel mills (SIC 3312)	Electrometallurgical products (SIC 3313)	Steel wire drawing, etc. (SIC 3315)	Cold finishing of steel shapes (SIC 3316)	Steel pipe and tube (SIC 3317)
Total cost of purchased fuels and electric energy.....\$1,000..	809,433	48,165	9,918	8,998	12,824
Total cost of purchased fuels.....do....	597,236	20,706	4,866	4,575	5,936
Bituminous coal, lignite, and anthracite:					
Quantity.....1,000 short tons..	6,899	1,800	41	50	49
Cost.....\$1,000..	45,185	10,975	357	332	362
Coke and breeze:					
Quantity.....1,000 short tons..	14,011	515	(S)	(S)	-
Cost.....\$1,000..	216,470	7,264	(S)	(S)	-
Fuel oil (distillate and residual):					
Quantity.....1,000 barrels of 42 gallons..	34,394	176	363	186	171
Cost.....\$1,000..	114,818	692	1,211	608	636
Gas (natural, manufactured, still, blast furnace, and coke oven):					
Quantity.....million cu.ft..	595,441	1,946	4,968	5,298	8,539
Cost.....\$1,000..	205,067	685	2,914	3,393	4,632
Other fuels.....do....	15,696	1,090	283	239	306
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	22,595	5,432	407	357	553
Cost.....\$1,000..	212,197	27,459	5,052	4,423	6,888
Generated less sold.....million kw.-hrs..	11,081	3,187	(S)	9	(S)
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	20,455	1,041	240	402	519
Prime movers, total.....do....	7,035	891	29	20	43
Driving generators.....do....	3,810	851	5	12	12
Not driving generators.....do....	3,225	40	24	8	31
Electric motors, total.....do....	19,166	295	213	387	491
Driven by purchased energy.....do....	13,420	151	211	381	475
Driven by energy generated at establishment.....do....	5,747	144	3	6	16
Aggregate horsepower per 100 production workers.....	5,030	12,475	1,549	4,302	2,656

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3312-	BLAST FURNACES AND STEEL MILLS										
	Entire industry.....	288	500,550	3,711,639	412,311	791,364	2,892,006	7,699,535	8,958,663	16,611,083	908,440
	Establishments with—										
	90% or more specialization..	227	424,626	3,168,343	351,449	675,562	2,486,121	6,672,399	7,861,527	14,487,571	778,520
	75-89% specialization.....	23	38,720	284,313	31,198	59,623	214,041	560,198	629,987	1,194,836	44,619
33121	Coke oven and blast furnace products, including ferroalloys (primary product class of estab.)	68	21,549	147,568	18,039	34,592	115,142	305,956	828,630	1,141,470	15,122
33122	Steel ingots and semifinished shapes (primary product class of estab.).....	19	30,276	227,301	24,412	46,888	174,355	499,411	655,818	1,149,444	49,119
	Establishments with—										
	90% or more specialization....	5	4,769	33,575	3,897	7,150	26,145	96,282	115,250	211,564	873
3312-12,13	Partially integrated works.....	11	19,337	148,042	15,168	29,460	110,171	343,978	381,234	718,848	28,846
33123	Hot-rolled sheet and strip, including tin mill products (primary product class of estab.)	35	138,623	1,056,123	114,047	218,122	829,050	2,473,005	2,719,903	5,158,699	369,807
	Establishments with—										
	90% or more specialization....	6	5,288	40,999	4,558	8,895	32,981	141,546	176,308	308,019	8,814
3312-11	Fully integrated works.....	10	90,004	679,447	74,353	141,301	534,936	1,702,408	1,226,088	2,721,915	149,316
3312-12,13	Partially integrated works.....	10	30,633	236,699	25,352	49,805	187,827	527,380	591,784	1,099,893	158,013
3312-14	Nonintegrated works.....	15	17,986	139,977	14,342	27,016	106,287	243,828	901,831	1,144,400	62,478
33124	Hot-rolled bars and bar shapes, plates, structural shapes, and piling (primary product class of estab.).....	78	156,719	1,151,042	127,702	245,036	883,900	2,113,115	2,225,992	4,336,800	204,881
	Establishments with—										
	90% or more specialization....	24	8,457	61,526	6,675	13,439	44,057	114,543	96,915	211,226	4,231
3312-11	Fully integrated works.....	9	79,452	583,398	63,750	123,155	446,298	1,110,802	967,486	2,084,993	148,788
3312-12,13	Partially integrated works.....	46	66,320	490,581	54,831	104,409	378,935	851,459	1,025,950	1,867,319	46,724
3312-14	Nonintegrated works.....	23	10,947	77,063	9,121	17,472	58,667	150,854	232,556	384,488	9,369
33125	Steel wire (produced in steel mills) (primary product class of estab.).....	11	12,223	83,671	9,973	19,610	66,086	139,531	136,442	281,449	7,433
3312-12,13	Partially integrated works.....	5	8,434	62,640	6,979	14,090	50,558	109,492	73,153	186,804	5,350
3312-14	Nonintegrated works.....	6	3,789	21,031	2,994	5,520	15,528	30,039	63,289	94,705	2,083
33126	Steel pipe and tube (produced in steel mills) (primary product class of estab.).....	19	62,555	442,603	52,986	100,320	347,492	810,914	956,188	1,753,538	56,093
3312-11	Fully integrated works.....	6	42,300	297,626	35,935	68,134	236,932	559,944	589,151	1,141,795	29,074
3312-12,13	Partially integrated works.....	5	14,864	106,173	12,628	24,010	80,810	205,785	251,390	452,775	24,475
3312-14	Nonintegrated works.....	8	5,391	38,804	4,423	8,176	29,750	45,185	115,647	158,968	2,544
33127	Cold-rolled steel sheet and strip (produced from own hot-rolled material) (primary product class of estab.).....	14	50,055	387,651	42,064	81,765	311,624	855,922	1,043,137	1,893,513	118,428
3312-11	Fully integrated works.....	5	31,011	241,345	26,619	51,970	199,852	553,730	520,852	1,068,792	60,519
3312-12,13	Partially integrated works.....	4	14,610	11,033	11,931	23,139	85,367	262,871	368,232	631,946	48,585
3312-14	Nonintegrated works.....	5	4,434	35,273	3,514	6,656	26,405	39,321	154,053	192,775	9,324



TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3312-	BLAST FURNACES AND STEEL MILLS—Continued										
33129	Press and hammer steel forgings (made in steel mills) (primary product class of estab.).....	6	4,932	33,780	3,952	7,801	25,109	41,082	30,096	72,540	3,033
3312-12,13	Partially integrated works.....	6	4,932	33,780	3,952	7,801	25,109	41,082	30,096	72,540	3,033
3313-	ELECTROMETALLURGICAL PRODUCTS										
	Entire industry.....	36	10,437	68,880	8,155	16,563	50,767	145,503	227,977	382,132	13,412
33132	Ferrochrome (primary product class of estab.).....	8	4,224	28,186	3,274	6,739	20,376	50,917	86,964	139,313	6,299
33133	Ferrosilicon (primary product class of estab.).....	10	3,986	26,223	3,140	6,326	20,094	60,403	79,235	146,709	3,274
3315-	STEEL WIRE DRAWING, ETC.										
	Entire industry.....	200	21,280	134,636	16,904	34,367	97,055	253,009	336,651	592,263	14,002
	Establishments with—										
	90% or more specialization..	164	14,278	91,172	11,348	22,853	66,107	175,780	225,565	403,045	8,271
	75-89% specialization.....	10	3,392	21,492	2,655	5,627	15,198	34,482	62,954	100,306	1,942
33151	Noninsulated ferrous wire, rope, cable, and strand (primary product class of estab.).....	12	3,430	23,832	2,635	5,048	16,883	41,529	45,262	86,302	1,702
	Establishments with—										
	90% or more specialization....	5	1,700	11,899	1,300	2,447	8,536	20,799	16,829	37,657	481
33152	Steel nails and spikes (primary product class of estab.).....	51	4,303	22,551	3,517	7,261	16,604	46,228	40,071	84,465	2,541
	Establishments with—										
	90% or more specialization....	36	1,741	8,249	1,450	2,900	6,203	14,096	15,216	29,555	328
	75-89% specialization.....	6	994	5,674	751	1,858	4,070	14,206	10,560	23,940	828
33155	Steel wire not produced in steel mills (primary product class of estab.).....	59	8,307	58,410	6,493	13,178	41,703	107,778	177,037	288,195	5,464
	Establishments with—										
	90% or more specialization....	40	4,089	29,517	3,239	6,779	21,730	58,316	75,316	131,995	3,181
	75-89% specialization.....	6	2,086	14,222	1,683	3,209	10,354	17,066	56,335	78,354	895
33157	Wire cloth and other woven wire products made in wire drawing plants (primary product class of estab.).....	6	859	5,107	611	1,187	3,115	8,285	8,264	17,721	701
33159	Other fabricated ferrous wire products, except springs, made in wire drawing plants (primary product class of estab.).....	37	2,612	15,592	2,136	4,286	11,367	30,174	42,634	73,501	1,692
	Establishments with—										
	90% or more specialization...	32	1,839	10,527	1,484	2,995	7,492	22,676	21,694	44,881	1,227
3316-	COLD FINISHING OF STEEL SHAPES										
	Entire industry.....	81	13,700	99,557	10,623	21,833	71,527	223,977	529,954	751,627	14,925
	Establishments with—										
	90% or more specialization..	70	9,915	72,472	7,648	15,732	51,647	156,810	474,373	626,153	11,329
33167	Cold-rolled steel sheet and strip (not made in steel mills) (primary product class of estab.).....	44	8,628	64,081	6,795	14,027	46,928	152,806	323,231	475,169	12,738
	Establishments with—										
	90% or more specialization....	37	5,545	41,633	4,366	8,961	30,021	94,817	284,073	374,710	9,450

**TABLE 9A. Blast Furnaces and Steel Mills (SIC 3312)—Departmental Operations by Degree of Integration: 1963 and 1958**

Department	Man-hours of production workers (1,000)						Production worker wages \$1,000					
	Total	Fully integrated works <sup>1</sup>	Partially integrated works <sup>1</sup>			Non-integrated works <sup>1</sup>	Total	Fully integrated works <sup>1</sup>	Partially integrated works <sup>1</sup>			Non-integrated works <sup>1</sup>
			Total	With blast furnaces	Without blast furnaces				Total	With blast furnaces	Without blast furnaces	
1963												
All departments, total.....	791,364	425,369	262,263	84,406	177,857	103,732	2,892,008	1,573,019	951,558	314,388	637,170	367,429
Coke ovens.....	36,802	24,467	-	-	-	12,335	124,301	84,532	-	-	-	39,769
Blast furnaces.....	41,060	24,065	5,010	5,010	-	11,985	144,249	85,052	18,795	18,795	-	40,402
Steel department (furnaces).....	77,238	47,132	30,106	9,470	20,636	-	308,396	190,727	117,669	39,955	77,714	-
Rolling and finishing mills:												
Sheet and strip mill.....	94,955	48,301	30,601	14,601	16,000	23,977	362,793	182,820	115,254	55,135	60,119	95,928
Tin mill.....	26,036	18,112										
Bar mill, including rebars.....	58,828	30,243	21,181	7,453	29,909	7,404	214,200	108,092	81,815	27,130	111,395	24,293
Wire drawing mill.....	20,103	7,830	8,008									
Pipe mill.....	34,910	19,897	8,173									
Other mills, including semifinishing, plate and structural.....	93,853	57,032	29,214	8,287	20,927	7,607	335,235	199,713	108,570	33,571	74,999	26,952
Foundry (iron or steel).....	12,203	18,893	2,177	835	1,342	23,701	44,570	67,625	7,136	3,054	4,082	60,395
Forging (presses, hammers, or upsetters).....	6,732		4,682	-	4,682		22,973		16,271	-	16,271	
Other manufacturing or fabricating departments (nuts, bolts, containers, etc.).....	47,032		16,514	-	16,514		137,935		54,051	-	54,051	
Service or auxiliary operations and all other activities.....	241,612	129,397	106,597	38,750	67,847	5,618	905,546	491,832	375,287	136,748	238,539	38,427
1958												
All departments, total.....	765,941	414,645	241,046	86,303	154,743	110,250	2,415,959	1,312,044	759,276	279,163	480,113	344,639
Coke ovens.....	40,449	25,977	-	-	-	14,472	120,041	79,504	-	-	-	40,537
Blast furnaces.....	40,391	24,121	6,428	6,428	-	9,842	120,925	72,846	19,645	19,645	-	28,434
Steel department (furnaces).....	74,801	44,375	30,426	11,659	18,767	-	257,601	154,553	103,048	40,904	62,144	-
Rolling and finishing mills.....	298,417	171,695	71,810	21,417	50,393	54,912	949,242	537,825	229,053	68,824	160,229	182,364
Foundry (iron or steel).....	7,912	4,538	2,575	1,182	1,393	799	23,068	13,077	7,536	3,886	3,650	2,455
Forging (presses, hammers or upsetters).....	6,698	1,169	5,169	-	5,169	360	20,305	3,609	15,619	-	15,619	1,077
Other manufacturing or fabricating departments (nuts, bolts, containers, etc.).....	50,887	10,234	30,657	45,617	79,021	9,996	151,228	29,837	92,572	145,904	238,471	28,819
Service or auxiliary operations and all other activities.....	246,386	132,536	93,981				773,549	420,793	291,803			

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>See footnote 6, table 1 for definition of fully integrated, partially integrated, and nonintegrated works.

**TABLE 9B. Steel Wire Mills, Cold Finishing Mills, and Pipe and Tube Mills—Department Operations: 1963**

Department	Steel wire drawing, etc. (SIC 3315)		Cold finishing mills (SIC 3316)		Steel pipe and tube (SIC 3317)	
	Man-hours	Production worker wages	Man-hours	Production worker wages	Man-hours	Production worker wages
	(1,000)	(\$1,000)	(1,000)	(\$1,000)	(1,000)	(\$1,000)
Total, all departments.....	34,367	97,055	21,833	71,527	37,862	113,656
Rolling and finishing mills:						
Sheet and strip mill.....	( <sup>1</sup> )	( <sup>1</sup> )	8,709	30,012	( <sup>1</sup> )	( <sup>1</sup> )
Tin mill.....	( <sup>1</sup> )	( <sup>1</sup> )	-	-	-	-
Bar mill, including rebars.....	( <sup>1</sup> )	( <sup>1</sup> )	3,343	10,911	( <sup>1</sup> )	( <sup>1</sup> )
Wire drawing mill.....	15,271	47,455	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Pipe mill.....	-	-	( <sup>1</sup> )	( <sup>1</sup> )	21,811	68,211
Other mills, including semifinishing, plate and structural...	1,152	13,893	12,074	16,659	1,776	12,488
Other manufacturing or fabricating departments (nuts, bolts, forgings, containers, etc.).....	8,335	21,612	1,075	3,712	6,866	20,124
Service or auxiliary operations and all other activities.....	3,945	12,064	4,236	13,564	1,562	4,482
Unspecified.....	5,664	12,031	2,396	6,669	6,847	18,352

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>Data for "Other mills..." includes data for specified mills not shown separately.





## IRON AND STEEL FOUNDRIES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3321--Gray Iron Foundries
- 3322--Malleable Iron Foundries
- 3323--Steel Foundries

This group is comprised of three foundry industries, namely industry 3321, Gray Iron Foundries; industry 3322, Malleable Iron Foundries; and industry 3323, Steel Foundries. These foundry industries comprise establishments primarily engaged in manufacturing gray-iron castings, including cast gray-iron pipe and fittings (3321), malleable iron castings (3322), and steel castings (3323).

For these industries, captive production (that is, the tonnage of castings produced for incorporation into the final product of the plant or company) is a particularly important factor. Distinction is made between rough castings and castings which are machined or further processed and incorporated into other products. The removal of gates, risers, sprues, and tumbling, dipping, and sand blasting, do not constitute machining. Plants primarily engaged in manufacturing castings are included in the foundry industries; plants primarily engaged in further processing castings into parts for metal products or machinery are classified in other major groups.

For the 1963 Census of Manufactures separate establishment reports were received from all commercial (jobbing) foundries and from those captive foundries which were operated as separate establishments by the reporting companies. These two groups comprise the types of establishments included in industries 3321, 3322, and 3323. However, where the captive foundry operation was completely integrated with the operation of the entire plant, no separate establishment report was received for the foundry activity. In these instances, data were obtained on the tonnage of castings produced and consumed and on the number of employees usually engaged in the captive foundry operation. However, establishments with such foundry departments were classified on the basis of the plant's final product and accordingly, the general statistics on employment, payrolls, cost of materials, etc., are included in the data for such industries as plumbing fixtures (3431), and farm machinery and equipment (3522), etc.

The data shown in table 6A on shipments and transfers of iron and steel castings represent total shipments and transfers including the quantity of castings shipped by establishments classified in industries other than the foundry industries (3321, 3322, and 3323). For those industries where captive foundry departments are particularly important, data on the tonnage of castings produced and consumed are shown in table 7 of the individual industry reports covering the specific industries.

During 1963, the Bureau of the Census also collected and published monthly data on shipments of iron and steel castings. These monthly data were derived from a sample survey and were published in Current Industrial Reports Series M33-1, Iron and Steel Castings. The M33-1 series includes data for both commercial and captive foundry production and shows separately shipments "for sale" and shipments "for own use."



It should be specifically noted that the value data on shipments of iron and steel castings in table 6A do not include the value of the large quantity of castings produced by establishments classified in other industries which produce castings only for incorporation into their own products or for internal use but not for sale as such.

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3321--GRAY IRON FOUNDRIES

This industry comprises establishments primarily engaged in manufacturing gray iron castings, including cast iron pressure and soil pipe and fittings. Establishments primarily engaged in manufacturing valves and fittings, except plumbers' brass goods and fittings, are classified in industry 3494, Valves and Pipe Fittings. For a detailed list of products of industry 3321, refer to table 6A, product codes 3321111 to 3321498.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Gray Iron Foundries Industry in 1963 totaled \$1,985 million. This amount included shipments of gray iron castings (primary products) valued at \$1,794 million, shipments of other products (secondary products) valued at \$134 million, and miscellaneous receipts (mainly receipts for resales) at \$56 million.

This industry's shipments of gray iron castings in 1963 represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent. Secondary products shipped by this industry in 1963 included malleable iron castings (\$22 million), and aluminum and aluminum-base alloy castings (\$17 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 85 percent of the total industry shipments are represented by plants specializing in product classes; 60 percent in miscellaneous gray iron castings; 12 percent in cast iron pressure pipe and fittings; and 8 percent in cast iron soil pipe and fittings.

Shipments of gray iron castings by this industry in 1963 represented 88 percent of all shipments of these products (\$2,046 million) by all industries. In 1958 the coverage ratio was 87 percent. Other industries shipping gray iron castings (primary products) included industry 3312, Steel Mill Products, \$92 million; industry 3323, Steel Castings, \$27 million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product class of industry 3321, e.g., molds for heavy steel ingots, 54 percent.

### 3322—MALLEABLE IRON FOUNDRIES

This industry comprises establishments primarily engaged in manufacturing malleable iron castings. For a detailed list of products of industry 3322, refer to table 6A, product codes 3322021 to 3322031.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Malleable Iron Foundries Industry in 1963 totaled \$318 million. This amount included shipments of malleable iron castings (primary products) valued at \$272 million, shipments of other products (secondary products) valued at \$42 million, and miscellaneous receipts (mainly receipts for resales) at \$3 million.

This industry's shipments of malleable iron castings in 1963 represented 87 percent of its total product shipments. The industry specialization ratio in 1958 was 86 percent. Secondary products shipped by this industry in 1963 consisted mainly of miscellaneous gray iron castings (\$21 million).

Shipments of malleable iron castings by this industry in 1963 represented 87 percent of all shipments of these products (\$314 million) by all industries. In 1958 the coverage ratio was 90 percent. Other industries shipping malleable iron castings (primary products) consisted mainly of industry 3321, Gray Iron Foundries, \$22 million.

The production index for the primary products of the industry increased to 124 in 1963 from the 1958 level of 84. The unit value index for 1963 was 123 compared to 118 in 1958. Both indexes were computed on a basis of 1954 = 100.

### 3323—STEEL FOUNDRIES

This industry comprises establishments primarily engaged in manufacturing steel castings. For a detailed list of products of industry 3323, refer to table 6A, product codes 3323012 to 3323061.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Steel Foundries Industry in 1963 totaled \$871 million. This amount included shipments of steel castings (primary products) valued at \$726 million, shipments of other products (secondary products) valued at \$129 million, and miscellaneous receipts (mainly receipts for resales), at \$17 million.

This industry's shipments of steel castings in 1963 represented 85 percent of its total product shipments. The industry specialization ratio in 1958 was 86 percent. Secondary products shipped by this industry in 1963 included miscellaneous gray iron castings (\$20 million), and street cars, parts and attachments for railroad cars and street cars and rebuilt passenger and freight train cars (\$19 million).

Shipments of steel castings by this industry in 1963 represented 89 percent of all shipments of these products (\$815 million) by all industries. In 1958 the coverage ratio was 86 percent. Other industries shipping steel castings (primary products) included industry 3312, Steel Mill Products, \$22 million; and industry 3321, Gray Iron Foundries, \$15 million.

The production index for the primary products of the industry increased to 114 in 1963 from the 1958 level of 89. The unit value index for 1963 was 134 compared to 124 in 1958. Both indexes were computed on a basis of 1954 = 100.



# IRON AND STEEL FOUNDRIES: SIC 332

Value Added by Manufacture by State: 1963

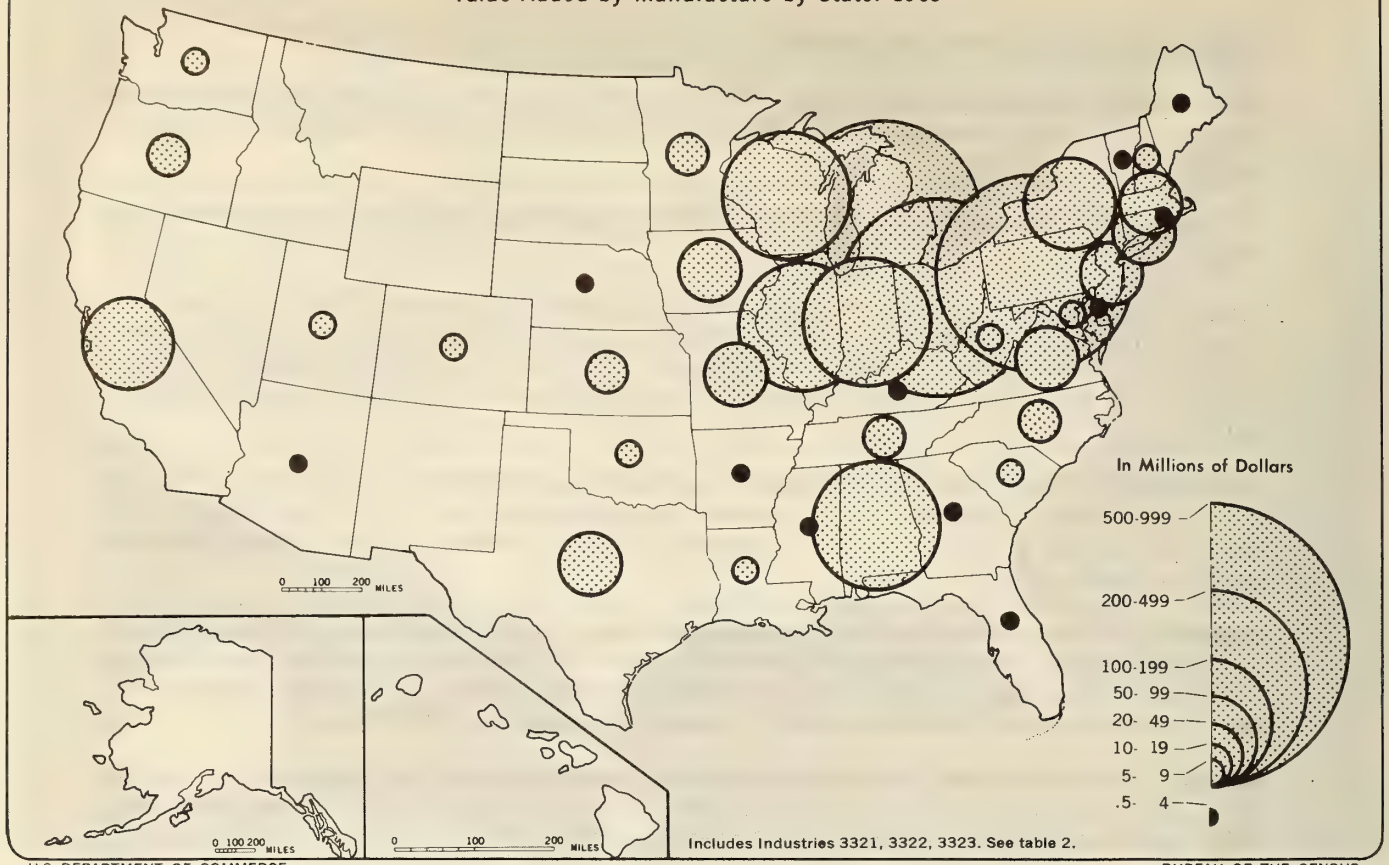


TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
	INDUSTRY 3321.—GRAY IRON FOUNDRIES													
1963.....	1,062	1,139	767	120,528	730,279	104,239	214,285	596,109	1,168,478	813,568	1,984,944	64,823	93	88
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	119,234	675,413	102,822	204,064	543,179	1,076,146	767,918	1,836,197	60,498	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	113,685	602,316	97,468	183,888	481,672	923,970	702,260	1,622,700	52,307	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	121,516	627,498	104,330	199,652	503,590	968,427	751,840	1,718,773	53,202	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	125,862	644,417	109,132	217,159	525,482	1,002,896	806,515	1,803,001	34,072	(NA)	(NA)
1958.....	1,211	1,310	848	112,670	531,152	96,414	178,006	418,935	810,758	622,696	1,434,701	32,559	95	87
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	136,040	626,185	118,615	227,157	509,526	954,202	737,429	1,689,827	61,560	94	85
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	142,765	661,108	125,367	252,429	542,627	1,051,075	777,562	1,816,296	57,377	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	144,669	656,572	128,097	265,620	549,081	1,049,422	735,162	1,772,932	57,014	(NA)	(NA)
1954.....	1,321	1,414	940	133,914	557,535	118,288	230,234	459,049	847,436	592,835	1,441,880	49,939	94	87
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	144,600	611,625	128,418	(NA)	513,840	911,419	690,304	1,601,723	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	145,070	577,317	129,501	(NA)	487,270	811,251	615,584	1,426,837	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	164,762	632,663	149,001	(NA)	546,162	911,367	723,394	1,634,761	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	150,121	521,655	135,811	(NA)	450,455	763,701	540,266	1,303,967	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	138,691	432,633	122,856	(NA)	361,028	604,352	437,897	1,042,249	(NA)	(NA)	(NA)
1947.....	1,554	1,655	(NA)	173,813	512,245	157,395	328,537	441,716	732,807	440,232	1,173,039	(NA)	92	87
1939.....	(NA)	1,254	(NA)	(NA)	(NA)	75,680	(NA)	89,047	169,278	108,564	277,842	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	1,227	(NA)	(NA)	(NA)	91,573	(NA)	112,148	200,155	122,405	322,560	(NA)	(NA)	(NA)
	INDUSTRY 3322.—MALLEABLE IRON FOUNDRIES													
1963.....	76	81	71	22,297	141,967	18,832	38,789	112,670	204,557	111,831	317,528	16,283	87	87
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,639	136,938	19,136	38,250	108,695	196,005	109,643	304,688	9,017	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,821	118,118	17,296	33,687	91,934	164,484	93,163	256,955	9,801	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,537	125,602	19,661	37,211	98,092	170,320	106,983	279,884	12,850	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,266	134,962	20,800	42,362	108,178	189,099	113,799	299,591	9,601	(NA)	(NA)
1958.....	74	82	74	20,230	100,579	16,694	31,366	77,148	127,592	86,790	214,537	4,438	86	90
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,426	112,255	20,042	38,209	89,565	159,221	100,677	259,561	7,388	86	92
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	25,121	117,136	21,599	42,573	95,016	171,330	109,904	280,781	8,451	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	27,400	127,408	24,082	49,798	106,100	183,999	113,755	294,204	11,217	(NA)	(NA)
1954.....	71	81	77	23,378	96,888	20,205	38,306	78,004	133,262	78,064	213,321	9,966	86	89
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	28,438	121,024	24,706	(NA)	98,727	164,393	106,709	271,102	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,019	114,785	25,107	(NA)	92,933	153,661	94,511	248,172	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	32,289	126,548	28,388	(NA)	104,777	174,555	109,146	283,701	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	26,229	95,415	22,973	(NA)	78,097	126,997	80,606	207,603	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,440	75,728	20,642	(NA)	59,879	96,989	63,345	160,384	(NA)	(NA)	(NA)
1947.....	68	78	(NA)	29,862	90,811	26,659	54,650	76,750	121,661	62,739	184,400	(NA)	88	91
1939.....	(NA)	83	(NA)	20,186	26,415	18,041	(NA)	21,556	35,500	17,951	53,451	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	84	(NA)	(NA)	(NA)	23,713	(NA)	28,819	45,512	24,004	69,516	(NA)	(NA)	(NA)
	INDUSTRY 3323.—STEEL FOUNDRIES													
1963.....	222	267	220	56,810	361,378	47,628	95,106	280,433	586,914	288,795	871,048	27,832	85	89
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	50,506	303,200	45,204	83,773	235,983	484,252	249,680	729,688	23,569	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	46,810	269,854	41,652	74,414	204,411	410,809	225,048	629,645	22,859	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	50,807	288,073	45,223	81,816	219,753	439,099	248,710	700,488	19,221	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	54,029	300,950	51,544	89,000	231,383	489,244	256,734	739,173	25,258	(NA)	(NA)
1958.....	210	256	216	49,133	254,338	40,134	74,390	186,778	383,870	203,683	596,276	22,239	86	86
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	67,486	357,831	57,075	113,608	274,090	570,652	329,019	890,810	36,035	86	88
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	70,412	365,095	60,305	124,782	288,717	594,103	331,920	901,041	31,767	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	60,264	287,723	50,776	102,726	221,498	440,580	230,538	657,647	20,378	(NA)	(NA)
1954.....	207	239	203	55,073	241,305	45,655	85,684	179,361	346,706	181,261	539,784	16,426	88	87
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	76,949	345,347	65,940	(NA)	274,765	550,340	296,123	846,463	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	79,010	343,664	69,259	(NA)	282,394	505,547	299,087	804,634	(NA)	(NA)	(NA)

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
	INDUSTRY 3323.—STEEL FOUNDRIES—Continued													
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	73,434	303,476	64,291	(NA)	247,653	458,102	292,644	750,746	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	52,094	189,707	44,219	(NA)	149,866	280,045	170,333	450,378	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	48,451	159,128	41,688	(NA)	123,446	227,016	138,844	365,860	(NA)	(NA)	(NA)
1947.....	177	203	(NA)	62,335	186,661	54,207	107,755	151,036	262,935	140,240	403,175	(NA)	89	83
1939.....	(NA)	164	(NA)	35,567	55,415	30,088	(NA)	41,942	90,234	45,232	135,466	(NA)	(NA)	(NA)
1937.....	(NA)	145	(NA)	(NA)	(NA)	41,299	(NA)	62,351	120,432	63,796	184,228	(NA)	(NA)	(NA)
1929 <sup>2</sup> .....	(NA)	168	(NA)	(NA)	(NA)	39,697	(NA)	66,459	142,287	63,063	205,350	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>2</sup>No comparable figures are available for earlier years.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3321.—GRAY IRON FOUNDRIES													
Total.....	1,139	767	120,528	730,279	104,239	214,285	596,109	1,168,478	813,568	1,984,944	64,823	112,670	810,758
New England.....	90	58	4,905	27,322	4,355	9,878	22,615	41,852	21,822	63,154	2,021	4,740	28,237
Massachusetts.....	47	30	2,704	14,794	2,481	5,990	12,812	23,463	10,274	33,274	956	2,740	18,142
Rhode Island.....	10	6	316	1,488	279	557	1,246	1,968	1,421	3,392	153	342	1,388
Connecticut.....	19	14	1,494	9,273	1,253	2,682	7,138	12,820	8,577	21,311	736	1,272	6,928
Middle Atlantic.....	199	136	14,865	84,442	12,839	25,149	68,302	140,003	101,455	241,659	8,631	17,965	117,001
New York.....	50	32	3,098	17,224	2,717	5,543	14,217	26,183	15,126	41,118	1,610	3,897	22,627
New Jersey.....	36	26	4,075	23,755	3,386	6,669	18,769	41,446	31,826	73,941	3,946	5,130	40,665
Pennsylvania.....	113	78	7,692	43,463	6,736	12,937	35,316	72,374	54,503	126,600	3,075	8,938	53,709
East North Central..	402	309	62,302	417,638	53,285	111,346	339,907	657,657	422,633	1,076,676	37,305	54,498	401,099
Ohio.....	115	87	16,845	115,033	14,321	29,952	92,945	194,138	134,348	327,133	9,045	16,201	134,681
Indiana.....	64	46	7,624	48,414	6,584	13,905	39,495	72,827	39,959	112,283	5,297	6,636	45,529
Illinois.....	75	58	6,918	39,140	5,966	11,074	31,118	61,888	48,219	109,462	3,011	6,350	39,732
Michigan.....	92	78	22,564	164,437	19,811	43,138	138,846	260,683	163,371	424,900	16,079	19,391	145,475
Wisconsin.....	56	40	8,351	50,614	6,603	13,277	37,503	68,121	36,736	102,898	3,873	5,920	35,682
West North Central..	101	57	5,588	29,703	4,914	9,466	24,726	45,928	29,687	74,740	2,396	5,283	34,980
Minnesota.....	27	13	799	4,624	722	1,429	4,028	8,278	4,985	13,266	275	915	7,177
Iowa.....	26	17	1,672	8,523	1,437	2,689	6,906	13,657	10,304	23,526	1,186	1,189	6,757
Missouri.....	26	16	2,279	12,619	2,023	3,855	10,709	17,652	11,099	28,360	717	2,370	14,605
South Atlantic.....	93	50	7,197	36,289	6,366	13,369	30,051	65,382	44,816	109,833	4,616	6,426	45,181
Maryland.....	8	7	756	3,858	657	1,423	3,021	5,323	3,983	9,346	1,369	771	5,162
Virginia.....	25	16	3,232	18,224	2,784	6,317	15,030	32,233	25,265	57,261	2,072	2,863	18,764
North Carolina.....	22	9	1,236	5,540	1,148	2,236	4,766	10,210	7,750	18,013	329	1,315	7,293
Georgia.....	13	6	485	2,015	424	846	1,630	2,384	1,367	3,751	114	512	1,826
Florida.....	12	3	396	1,619	352	665	1,236	2,526	1,451	3,868	54	352	1,983
East South Central..	78	63	14,458	75,922	12,763	25,513	62,705	110,411	124,290	243,157	5,048	13,034	99,273
Mississippi.....	4	2	144	620	118	234	519	1,035	870	1,914	33	( <sup>2</sup> )	( <sup>2</sup> )
West South Central..	59	31	4,969	21,910	4,409	8,708	17,955	37,999	26,944	64,704	2,368	4,170	28,754
Louisiana.....	6	2	106	338	90	163	264	899	228	1,133	7	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	35	18	4,142	18,416	3,678	7,281	15,170	32,508	24,134	56,483	2,031	3,625	25,687
Mountain.....	17	11	1,148	6,653	987	1,899	5,121	15,093	10,758	26,008	867	1,251	13,877
Colorado.....	8	5	435	2,274	390	787	1,909	4,435	4,042	8,355	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Pacific.....	100	52	5,096	30,400	4,321	8,957	24,727	54,153	31,163	85,013	1,571	5,303	42,356
Oregon.....	13	5	451	2,638	389	741	2,164	3,933	1,900	5,830	456	483	4,119
California.....	71	43	4,253	25,490	3,730	7,524	20,623	46,406	27,959	74,141	1,331	4,479	35,423
INDUSTRY 3322.—MALLEABLE IRON FOUNDRIES													
Total.....	81	71	22,297	141,967	18,832	38,789	112,670	204,557	111,831	317,528	16,283	20,230	127,592
New England.....	6	6	824	4,153	698	1,284	3,163	6,192	3,102	9,228	320	881	5,056
Connecticut.....	3	3	462	2,320	379	685	1,698	3,533	1,943	5,450	(D)	482	2,834
Middle Atlantic.....	21	18	3,750	20,281	3,230	6,090	16,383	28,573	14,383	42,493	1,800	3,133	19,363
Pennsylvania.....	13	11	2,454	13,125	2,106	3,982	10,534	18,845	9,618	28,340	1,609	1,958	12,637
East North Central..	40	38	16,361	109,886	13,776	29,168	87,431	158,841	89,372	249,884	13,601	14,772	94,392
Ohio.....	13	11	3,708	24,070	3,215	6,719	20,331	31,553	16,346	49,416	1,346	3,194	19,835
Indiana.....	3	3	886	4,234	759	1,423	3,448	5,818	3,004	9,001	170	1,393	5,907
Illinois.....	9	9	4,289	30,590	3,638	7,836	24,451	41,560	27,818	69,599	4,880	4,663	31,300
Michigan.....	6	6	5,438	38,771	4,405	9,611	29,245	62,428	34,692	96,964	6,465	4,110	28,005
Wisconsin.....	9	9	2,040	12,221	1,759	3,579	9,956	17,482	7,512	24,904	740	1,412	9,345
West North Central..	4	4	468	2,572	376	754	1,909	3,873	1,457	5,371	212	427	2,490
South and West.....	10	5	894	5,075	752	1,493	3,784	7,078	3,517	10,552	350	1,017	6,291
INDUSTRY 3323.—STEEL FOUNDRIES													
Total.....	267	220	56,810	361,378	47,628	95,106	280,433	586,914	288,795	871,048	27,832	49,133	383,870
New England.....	11	9	1,096	6,145	846	1,841	4,287	10,133	4,292	14,554	306	1,452	10,417
Connecticut.....	6	5	501	2,802	416	896	2,190	4,701	2,154	6,874	(D)	344	2,755
Middle Atlantic.....	56	48	15,751	103,891	13,149	26,031	81,265	156,388	85,942	241,840	4,142	14,238	112,007
Pennsylvania.....	38	33	11,817	78,189	9,909	19,446	61,312	109,930	66,079	175,386	3,087	10,854	83,025

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
INDUSTRY 3323.—STEEL FOUNDRIES—Continued													
East North Central..	98	77	26,241	173,358	21,950	44,077	132,931	293,408	132,386	421,910	19,240	20,985	170,002
Ohio.....	30	27	8,597	55,702	7,208	14,667	42,591	99,289	45,861	142,948	10,044	6,242	48,509
Indiana.....	6	5	4,118	27,633	3,715	7,677	23,909	40,341	19,831	60,339	1,354	3,574	36,783
Illinois.....	23	18	7,026	46,689	5,745	10,875	33,514	85,224	33,323	117,352	4,123	5,344	39,207
Michigan.....	22	13	2,382	15,770	1,912	3,895	11,986	26,641	14,611	40,891	1,444	2,222	14,946
Wisconsin.....	17	14	4,118	27,564	3,370	6,963	20,931	41,913	18,760	60,380	2,275	3,603	30,557
West North Central..	16	15	3,823	22,997	3,267	6,667	18,603	38,828	19,491	57,865	1,064	3,450	26,001
East South Central..	6	6	1,007	4,791	884	1,649	3,844	8,034	4,449	12,409	373	866	5,065
All other divisions.	80	65	8,892	50,196	7,532	14,841	39,503	80,123	42,235	122,470	2,707	8,142	60,377
Louisiana.....	3	3	771	4,340	648	1,392	3,531	6,924	3,106	10,014	349	( <sup>2</sup> )	( <sup>2</sup> )
Washington.....	11	9	612	4,079	513	994	3,124	5,951	3,368	9,273	299	488	3,749
Oregon.....	6	6	1,184	7,558	987	1,974	6,299	12,353	7,370	19,763	304	1,058	9,463

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.  
 SIC 3321, Gray Iron Foundries: New England—Maine, 4 (20-99); New Hampshire, 5 (100-249); Vermont, 5 (100-249); West North Central—North Dakota, 1 (1-19); South Dakota, 1 (1-19); Nebraska, 3 (100-249); Kansas, 17 (500-999); South Atlantic—West Virginia, 10 (500-999); South Carolina, 3 (500-999); East South Central—Kentucky, 7 (250-499); Tennessee, 24 (2,500-4,999); Alabama, 43 (10,000 and over); West South Central—Arkansas, 6 (100-249); Oklahoma, 12 (500-999); Mountain—Montana, 1 (20-99); Idaho, 2 (20-99); Arizona, 2 (100-249); Utah, 4 (500-999); Pacific—Washington, 15 (250-499); Hawaii, 1 (1-19).  
 SIC 3322, Malleable Iron Foundries: New England—New Hampshire, 1 (100-249); Massachusetts, 1 (100-249); Rhode Island, 1 (100-249); Middle Atlantic—New York, 7 (1,000-2,499); New Jersey, 1 (20-99); West North Central—Minnesota, 1 (100-249); Iowa, 2 (100-249); Missouri, 1 (100-249); South Atlantic—Virginia, 1 (1-19); West Virginia, 1 (100-249); North Carolina, 1 (20-99); Georgia, 1 (1-19); West South Central—Texas, 2 (500-999); Mountain—Colorado, 1 (1-19); Utah, 1 (1-19); Pacific—California, 2 (100-249).  
 SIC 3323, Steel Foundries: New England—Maine, 1 (1-19); New Hampshire, 1 (250-499); Vermont, 3 (250-499); Middle Atlantic—New York, 11 (2,500-4,999); New Jersey, 7 (500-999); West North Central—Minnesota, 1 (100-249); Iowa, 2 (500-999); Missouri, 10 (1,000-2,499); Nebraska, 1 (20-99); Kansas, 2 (500-999); South Atlantic—Delaware, 2 (250-499); West Virginia, 1 (20-99); Georgia, 4 (100-249); Florida, 3 (224); East South Central—Kentucky, 1 (20-99); Tennessee, 1 (250-499); Alabama, 4 (250-499); West South Central—Arkansas, 1 (100-249); Oklahoma, 2 (250-499); Texas, 7 (1,000-2,499); Mountain—Colorado, 2 (250-499); Arizona, 1 (250-499); Utah, 1 (1-19); Pacific—California, 36 (2,500-4,999).

<sup>2</sup>This state was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges for such States.) In the 1954 and 1947 reports, the footnote to table 2 usually provided similar information.

TABLE 3. Detailed Statistics: 1963

Item	Gray iron foundries (SIC 3321)	Malleable iron foundries (SIC 3322)	Steel foundries (SIC 3323)
Primary product specialization ratio <sup>1</sup> .....	.93	.87	.85
Coverage ratio <sup>2</sup> .....	.88	.87	.89
Establishments, total.....number..	1,139	81	267
With 1 to 19 employees.....do....	372	10	47
With 20 to 99 employees.....do....	498	13	81
With 100 employees or more.....do....	269	58	139
Proprietors and working partners.....do....	396	11	33
All employees (average for the year).....do....	120,528	22,297	56,810
Payroll (all employees), total for year.....\$1,000..	730,279	141,967	361,378
Production workers:			
Average for the year.....number..	104,239	18,832	47,628
March.....do....	104,060	19,150	45,679
May.....do....	105,110	18,975	47,429
August.....do....	100,964	18,674	48,691
November.....do....	106,824	18,527	48,714
Man-hours.....1,000..	214,285	38,789	95,106
January-March.....do....	52,056	9,824	22,624
April-June.....do....	55,191	10,045	24,612
July-September.....do....	51,887	9,106	23,041
October-December.....do....	55,151	9,814	24,829
Wages.....\$1,000..	596,109	112,670	280,433
Cost of materials, etc., total.....do....	813,568	111,831	288,795
Materials, parts, containers, and supplies consumed.....do....	666,606	92,782	235,267
Cost of resales.....do....	40,440	1,519	7,132
Fuels consumed.....do....	56,859	10,818	14,958
Electric energy:			
Purchased:			
Quantity.....million kw.-hrs..	1,737	500	1,789
Cost.....\$1,000..	21,319	5,620	21,585
Generated less sold.....million kw.-hrs..	23	(D)	(D)
Contract work.....\$1,000..	28,344	1,092	9,853
Value of shipments (including resales), total.....do....	1,984,944	317,528	871,048
Value of resales.....do....	43,925	1,721	9,386
Value added by manufacture, adjusted.....do....	1,168,478	204,557	586,914
Manufacturers' inventories:			
Beginning of year, total.....do....	198,475	25,402	98,704
Finished products.....do....	76,161	7,105	18,105
Work-in-process.....do....	35,633	8,010	42,271
Materials, supplies, fuel, etc.....do....	86,681	10,287	38,328
End of year, total.....do....	192,498	23,954	101,533
Finished products.....do....	81,499	5,818	18,926
Work-in-process.....do....	27,397	8,157	46,111
Materials, supplies, fuel, etc.....do....	83,602	9,979	36,496
Expenditures for plant and equipment, total.....do....	67,906	17,145	30,100
New, total.....do....	64,823	16,283	27,832
New structures and additions to plant.....do....	10,202	1,742	4,183
New machinery and equipment.....do....	54,621	14,541	23,649
Used plant and equipment.....do....	3,083	862	2,268
Selected operating ratios:			
Payroll/Total employment.....	6,060	6,358	6,361
Production workers/Total employment.....	.86	.84	.84
Man-hours/Production workers.....	2,056	2,059	1,997
Production worker wages/Man-hours.....	2.78	2.90	2.95
Cost of materials and payrolls/Total value of shipments.....	.78	.80	.75
Cost of materials/Total value of shipments.....	.41	.36	.33
Adjusted value added/Total employment.....	9,646	9,164	10,331
Salaries and wages/Adjusted value added.....	.63	.69	.62

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.



TABLE 4. **Selected Statistics, by Employment Size of Establishments: 1963**

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
	INDUSTRY 3321.—GRAY IRON FOUNDRIES										
Establishments.....number..	1,139	143	91	138	279	219	176	56	23	11	3
All employees:											
Total.....do....	120,528	257	625	1,957	9,229	15,297	26,798	19,754	15,727	30,884	(D)
Payroll.....\$1,000..	730,279	2,556	2,587	8,287	44,648	79,464	151,279	120,399	96,989	224,070	(D)
Value added, adjusted.....do....	1,168,478	3,573	4,006	13,032	70,373	122,833	237,505	215,350	152,158	349,658	(D)
Value of shipments.....do....	1,984,944	5,162	6,526	19,218	108,460	191,521	398,286	388,124	296,432	571,215	(D)
Capital expenditures, new...do....	64,823	89	185	535	2,240	5,326	13,321	11,298	9,381	22,448	(D)
	INDUSTRY 3322.—MALLEABLE IRON FOUNDRIES										
Establishments.....number..	81	2	4	4	4	9	30	17	8	2	1
All employees:											
Total.....do....	22,297	32	(D)	52	127	658	4,897	5,611	10,920	(D)	(D)
Payroll.....\$1,000..	141,967	131	(D)	195	627	3,601	26,635	31,706	79,072	(D)	(D)
Value added, adjusted.....do....	204,557	200	(D)	321	951	5,390	35,764	43,030	118,901	(D)	(D)
Value of shipments.....do....	317,528	278	(D)	408	1,378	7,870	54,630	65,106	187,858	(D)	(D)
Capital expenditures, new...do....	16,283	4	(D)	9	83	237	1,168	2,387	12,395	(D)	(D)
	INDUSTRY 3323.—STEEL FOUNDRIES										
Establishments.....number..	267	20	10	17	42	39	68	40	24	7	—
All employees:											
Total.....do....	56,810	112	(D)	247	1,394	2,754	11,427	13,601	16,903	10,372	—
Payroll.....\$1,000..	361,378	1,736	(D)	1,405	7,424	16,337	67,320	85,387	110,250	71,519	—
Value added, adjusted.....do....	586,914	6,292	(D)	2,499	11,521	31,674	113,328	138,464	183,487	99,649	—
Value of shipments.....do....	871,048	6,846	(D)	4,162	17,526	45,618	171,004	205,820	270,084	149,988	—
Capital expenditures, new...do....	27,832	35	(D)	147	456	989	4,549	5,384	8,711	7,561	—

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

TABLE 5A. **Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
						Col. B Col. B-C				Col. B Col. F
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(percent)	(\$1,000)	(\$1,000)	(\$1,000)	(percent)
		A	B	C	D	E	F	G	H	I
3321	Gray iron foundries.....1963..	1,984,944	1,794,274	134,208	56,462	93	2,046,305	1,794,274	252,031	88
	1958..	1,434,701	1,334,531	68,261	31,909	95	1,527,888	1,334,531	193,357	87
3322	Malleable iron foundries.....1963..	317,528	272,425	42,240	2,863	87	313,638	272,425	41,213	87
	1958..	214,537	183,622	29,897	1,018	86	203,310	183,622	19,688	90
3323	Steel foundries.....1963..	871,048	725,735	128,636	16,677	85	815,070	725,735	89,335	89
	1958..	596,276	502,846	81,851	11,579	86	587,931	502,846	85,085	86

NOTE: See Introduction for an explanation of terms used.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)

miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Gray iron foundries (SIC 3321)	Malleable iron foundries (SIC 3322)	Steel foundries (SIC 3323)	Blast furnaces and steel mills (SIC 3312)	All other industries
	Total shipments and receipts of the industry.....	(X)	1,984,944	317,528	871,048	(X)	(X)
3321-	Gray iron castings.....	2,046,305	1,794,274	21,264	(D)	91,519	139,248
33211	Molds for heavy steel ingots.....	187,756	101,097	-	(D)	(D)	<sup>1</sup> 86,659
33212	Cast iron pressure pipe.....	230,651	(D)	-	-	(D)	(D)
33213	Cast iron soil pipe and fittings.....	152,078	(D)	-	-	-	(D)
33214	All other gray iron castings.....	1,432,789	1,278,799	21,264	19,759	5,471	<sup>2</sup> 107,496
33210	Gray iron castings, n.s.k.....	43,031	41,792	-	(D)	-	1,239
33220	Malleable iron castings.....	313,638	21,859	272,425	(D)	-	<sup>3</sup> 19,354
33230	Steel castings.....	815,070	14,587	2,764	725,735	22,473	<sup>4</sup> 49,511
	Other products.....	(X)	<sup>5</sup> 97,762	<sup>6</sup> 18,212	<sup>7</sup> 108,877	(X)	(X)
33610	Aluminum and aluminum-base alloy castings.....	(X)	17,369	2,485	2,959	(X)	(X)
33620	Copper and copper-base alloy castings.....	(X)	10,487	1,785	3,089	(X)	(X)
33690	Nonferrous castings, n.e.c.....	(X)	3,013	(D)	(D)	(X)	(X)
34411	Fabricated structural iron and steel for buildings.....	(X)	3,545	-	-	(X)	(X)
34941	Metal valves for piping systems (except plumbing and heating valves).....	(X)	1,605	-	(D)	(X)	(X)
35441	Special dies and tools, die sets, jigs and fixtures.....	(X)	4,143	423	2,662	(X)	(X)
35650	Industrial patterns, except shoe (of wood, metal, etc.)..	(X)	9,849	3,264	5,815	(X)	(X)
35661	Plain bearings.....	(X)	1,478	-	(D)	(X)	(X)
35990	Carburetors, pistons, and other machine shop products...	(X)	1,870	-	4,505	(X)	(X)
37423	Street cars and parts and accessories for railroad and street cars; rebuilt passenger and freight train cars..	(X)	-	(D)	18,706	(X)	(X)
	All other secondary products.....	(X)	44,403	10,255	71,141	(X)	(X)
	Miscellaneous receipts.....	(X)	56,462	2,863	16,677	(X)	(X)
	Contract work.....	(X)	5,358	56	2,944	(X)	(X)
	Sale of products bought and resold without further manufacture.....	(X)	43,925	1,721	9,386	(X)	(X)
	All other receipts.....	(X)	7,179	1,086	4,347	(X)	(X)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Includes shipments which totaled \$2 million or more for industry 3312, Blast Furnaces and Steel Mills; and 3323, Steel Foundries, but are withheld to avoid disclosing individual company figures.

<sup>2</sup>Includes \$3 million shipped by industry 3433, Heating Equipment, Except Electric; \$2 million by industry 3494, Valves and Pipe Fittings; \$2 million by industry 3519, Internal Combustion Engines; \$21 million by industry 3522, Farm Machinery and Equipment; \$5 million by industry 3541, Metal-cutting Machine Tools; \$4 million by industry 3552, Textile Machinery; \$4 million by industry 3554, Paper Industries Machinery; \$3 million by industry 3559, Special Industry Machinery, N.E.C.; \$2 million by industry 3561, Pumps, and Compressors; \$9 million by industry 3599, Miscellaneous Machinery; and \$18 million by industry 3717, Motor Vehicles and Parts. In addition the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing individual company figures: Industry 3548, Metalworking Machinery, N.E.C. and industry 3553, Woodworking Machinery.

<sup>3</sup>Includes \$2 million shipped by industry 3494, Valves and Pipe Fittings. In addition the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing individual company figures: Industry 3323, Steel Foundries; and industry 3559, Special Industry Machinery, N.E.C.

<sup>4</sup>Includes \$6 million shipped by industry 3361, Aluminum Castings; \$6 million by industry 3362, Brass, Bronze, Copper Castings; \$7 million shipped by industry 3531, Construction Machinery; and \$2 million by industry 3561, Pumps and Compressors. In addition the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing individual company figures: Industry 2499, Wood Products, N.E.C.; industry 3391, Iron and Steel Forgings; industry 3548, Metalworking Machinery, N.E.C.; and industry 3566, Power Transmission Equipment.

<sup>5</sup>Includes the following product classes which totaled \$2 million or more but are withheld to avoid disclosing individual company figures: 33176, Steel pipe and tube; 34431, Heat exchangers and steam condensers; 34990, Fabricated metal products, n.e.c.; 35197, Parts and accessories for internal combustion engines; 35222, Wheel tractors and parts and attachments; and 35313, Parts and attachments for tracklaying and contractors' off-highway wheel tractors.

<sup>6</sup>Includes the following product class which totaled \$2 million or more but is withheld to avoid disclosing individual company figures: 34231, Mechanics' hand service tools.

<sup>7</sup>Includes the following product classes which totaled \$2 million or more but are withheld to avoid disclosing individual company figures: 19310, Tanks and tank components; 33211, Molds and stools for heavy steel ingots; 33220, Malleable iron castings; 33560, Nonferrous rolling and drawing, n.e.c.; 33919, Open die press; and hammer forgings; 34432, Fabricated steel plate; 34990, Fabricated metal products, n.e.c.; 35481, Rolling mill machinery and equipment; 37413, Parts for locomotives and rebuilt locomotives; and 37422, Freight train cars, new.



**TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958**

Product code	Product	Total shipments, including interplant transfers		Shipments to other companies		Transfers to other plants of the same company	
		Quantity (short tons)	Value (\$1,000)	Quantity (short tons)	Value (\$1,000)	Quantity (short tons)	Value (\$1,000)
		1963					
3321- --	GRAY IRON CASTINGS, TOTAL <sup>1</sup> .....	(X)	2,046,305	(X)	(NA)	(X)	(NA)
33211 11	Molds and stools for heavy steel ingots.....	2,128,171	187,756	1,333,167	115,425	795,004	72,331
33212 --	Cast iron pressure pipe and fittings.....	1,750,641	230,651	<sup>2</sup> 1,750,627	<sup>2</sup> 230,651	( <sup>2</sup> )	( <sup>2</sup> )
33212 21	6" and under (inside diameter).....	594,446	80,324	<sup>2</sup> 594,446	<sup>2</sup> 80,324	( <sup>2</sup> )	( <sup>2</sup> )
33212 23	Over 6" up to and including 8" (inside diameter).....	408,894	54,843	<sup>2</sup> 408,894	<sup>2</sup> 54,843	( <sup>2</sup> )	( <sup>2</sup> )
33212 25	Over 8" up to but not including 14" (inside diameter).....	449,368	56,188	<sup>2</sup> 449,368	<sup>2</sup> 56,188	( <sup>2</sup> )	( <sup>2</sup> )
33212 31	14"-24" inclusive (inside diameter).....	297,933	39,296	<sup>2</sup> 297,933	<sup>2</sup> 39,296	( <sup>2</sup> )	( <sup>2</sup> )
33212 51	Over 24" (inside diameter).....						
33213 --	Cast iron soil pipe and fittings.....	953,138	152,078	<sup>2</sup> 953,138	<sup>2</sup> 152,078	( <sup>2</sup> )	( <sup>2</sup> )
	Cast iron soil pipe and fittings, including special fittings:						
33213 21	Up to 3" (inside diameter).....	234,339	42,294	<sup>2</sup> 234,339	<sup>2</sup> 42,294	( <sup>2</sup> )	( <sup>2</sup> )
33213 31	Over 3" up to but not including 5" (inside diameter).....	564,351	84,010	<sup>2</sup> 564,351	<sup>2</sup> 84,010	( <sup>2</sup> )	( <sup>2</sup> )
33213 41	5" and over (inside diameter).....	154,448	25,774	<sup>2</sup> 154,448	<sup>2</sup> 25,774	( <sup>2</sup> )	( <sup>2</sup> )
33214 --	All other gray iron castings.....	5,053,031	1,432,789	3,314,348	981,385	1,738,683	451,404
33214 31	Rolls for rolling mills.....	102,913	61,906	84,499	52,579	18,414	9,327
33214 98	All other gray iron castings.....	4,950,118	1,370,883	3,229,849	928,806	1,720,269	442,077
33210 00	Gray iron castings, n.s.k.....	(X)	43,031	(X)	43,031	-	-
3322- --	MALLEABLE IRON CASTINGS, TOTAL <sup>1</sup> .....	(X)	313,638	(X)	212,042	(X)	101,596
33220 21	Standard.....	634,072	234,012	} 538,025	210,800	340,246	101,596
33220 31	Pearlitic.....	244,199	78,384				
33220 00	Malleable iron castings, n.s.k.....	(NA)	1,242	(NA)	1,242	-	-
3323- --	STEEL CASTINGS, TOTAL <sup>1</sup> .....	(X)	815,070	(X)	755,729	(X)	59,341
	Carbon steel castings:						
33230 12	Cast steel railroad car wheels.....	253,199	64,716	253,199	64,716	-	-
33230 13	Railway specialities (except cast railroad car wheels).....	188,836	76,710	181,938	73,609	6,898	3,101
33230 15	Rolls for rolling mills.....	26,392	14,760	25,352	14,419	1,040	341
33230 19	Other carbon steel castings.....	478,678	286,431	428,106	263,157	50,572	23,274
33230 21	High manganese steel castings.....	63,875	47,342	61,883	46,004	1,992	1,338
33230 31	High alloy steel castings <sup>3</sup> .....	38,539	75,695	33,811	66,938	4,728	8,757
	Alloy steel castings (except high alloy steel castings):						
33230 51	Railway specialities.....	62,168	30,585	62,168	30,585	( <sup>2</sup> )	( <sup>2</sup> )
33230 55	Rolls for rolling mills.....	52,055	30,900	40,252	24,478	11,803	6,422
33230 59	Other alloy steel castings.....	161,014	115,937	142,579	99,829	18,435	16,108
33230 61	Investment castings (steel).....	3,621	64,100	3,621	64,100	( <sup>2</sup> )	( <sup>2</sup> )
33230 00	Steel castings, n.s.k.....	(X)	7,894	(X)	7,894	(X)	(X)
		1958					
3321- --	GRAY IRON CASTINGS, TOTAL <sup>1</sup> .....	(X)	1,527,888	(X)	(NA)	(X)	(NA)
33211 11	Molds and stools for heavy steel ingots.....	1,509,368	147,705	959,038	97,295	550,330	50,410
33212 --	Cast iron pressure pipe and fittings.....	1,327,165	196,146	<sup>2</sup> 1,327,165	<sup>2</sup> 196,146	( <sup>2</sup> )	( <sup>2</sup> )
33212 11	Under 14" (inside diameter).....	1,105,508	165,703	<sup>2</sup> 1,105,508	<sup>2</sup> 165,703	( <sup>2</sup> )	( <sup>2</sup> )
33212 31	14"-24" inclusive (inside diameter).....	192,980	26,364	<sup>2</sup> 192,980	<sup>2</sup> 26,364	( <sup>2</sup> )	( <sup>2</sup> )
33212 51	Over 24" (inside diameter).....	28,677	4,079	<sup>2</sup> 28,677	<sup>2</sup> 4,079	( <sup>2</sup> )	( <sup>2</sup> )
33213 --	Cast iron soil pipe and fittings.....	757,293	119,768	<sup>2</sup> 757,293	<sup>2</sup> 119,768	( <sup>2</sup> )	( <sup>2</sup> )
	Cast iron soil pipe and fittings, including special fittings:						
33213 21	Up to 3" (inside diameter).....	} 757,293	119,768	<sup>2</sup> 757,293	<sup>2</sup> 119,768	( <sup>2</sup> )	( <sup>2</sup> )
33213 31	Over 3" up to but not including 5" (inside diameter).....						
33213 41	5" and over (inside diameter).....						

See footnote at end of table.

TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments, including interplant transfers		Shipments to other companies		Transfers to other plants of the same company	
		Quantity	Value	Quantity	Value	Quantity	Value
		(short tons)	(\$1,000)	(short tons)	(\$1,000)	(short tons)	(\$1,000)
		1958--Continued					
3321- --	GRAY IRON CASTINGS--Continued						
33214 --	All other gray iron castings.....	3,887,194	995,119	2,504,642	661,455	1,382,552	333,664
33214 31	Rolls for rolling mills.....	67,043	38,130	67,043	38,130	(X)	(X)
33214 98	All other gray iron castings.....	3,820,151	956,989	2,437,599	623,325	1,382,552	333,664
33210 00	Gray iron castings, n.s.k.....	(X)	69,150	(X)	69,150	(X)	-
3322- --	MALLEABLE IRON CASTINGS, TOTAL <sup>1</sup> .....	(X)	203,310	(X)	146,663	191,897	56,647
33220 21	Standard.....	464,032	164,652	319,022	120,648	145,010	44,004
33220 31	Pearlitic.....	117,058	36,190	70,168	23,547	46,887	12,643
33220 00	Malleable iron castings, n.s.k.....	(X)	2,468	(X)	2,468	-	-
3323- --	STEEL CASTINGS, TOTAL <sup>1</sup> .....	(X)	587,931	(X)	547,151	56,900	40,780
	Carbon steel castings:						
33230 12	Cast steel railroad car wheels.....	206,976	66,120	203,309	64,491	3,667	1,629
33230 13	Railway specialities(except cast railroad car wheels).....						
33230 15	Rolls for rolling mills.....						
33230 19	Other carbon steel castings.....	401,482	234,311	372,243	216,887	29,239	17,424
33230 21	High manganese steel castings.....	49,127	36,079	47,018	34,886	2,109	1,193
33230 31	High alloy steel castings <sup>3</sup> .....	31,332	66,783	27,242	59,784	4,090	6,999
	Alloy steel castings (except high alloy steel castings):						
33230 51	Railway specialities.....	17,956	8,653	16,983	8,232	613	421
33230 55	Rolls for rolling mills.....	49,853	26,833	43,872	23,670	5,981	3,163
33230 59	Other alloy steel castings.....	147,555	103,666	136,738	94,250	10,817	9,416
33230 61	Investment castings (steel).....	2,887	30,754	2,810	30,373	77	381
33230 00	Steel castings, n.s.k.....	(X)	8,829	(X)	8,829	(X)	-

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

<sup>1</sup>Differs from the figures published in Current Industrial Reports Series M33-1, "Iron and Steel Castings," in that no figures are included above for castings produced by captive foundry departments of plants classified in other industries. As shown in the Current Industrial Reports, captive production ("for own use"), including both interplant transfers and castings produced and consumed by the same plant for 1963, totaled 5,674 thousand tons. Of gray iron castings, 410 thousand tons of malleable iron castings, and 307 thousand tons of steel castings. Of this total only the following tonnages transferred to other plants are included above: gray iron castings, 2497 thousand tons; malleable iron castings, 340 thousand tons; and steel castings, 96 thousand tons. The difference between tonnages shown above for "shipments to other companies" and the "for sale" figures in Series M33-1 are due to differences in classification in the census and monthly survey with regard to such products as machinery parts, etc., and fiscal year reports in the Census.

<sup>2</sup>Figures for transfers to other plants of the same company are included with "shipments to other companies" to avoid disclosing operations of individual companies.

<sup>3</sup>Heat and/or corrosion-resistant steel castings contain 8 percent more of chromium or nickel, or both, with or without molybdenum or other elements.



**TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
332	Iron and steel foundry products.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
3321	Gray iron castings .....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
33211	Molds and stools for heavy steel ingots.....1963..	147	111
	.....1958..	114	118
33212	Cast iron pressure pipe and fittings.....1963..	122	111
	.....1958..	93	124
33213	Cast iron soil pipe and fittings.....1963..	126	112
	.....1958..	100	111
3322	Malleable iron castings.....1963..	124	123
	.....1958..	84	118
3323	Steel castings.....1963..	114	134
	.....1958..	89	124

<sup>1</sup>Not shown, subject to further review of data for product class 33214, All other gray iron castings.

**TABLE 6C. Product Classes—Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3321-	Gray iron castings.....	2,046,308	1,893,147	1,679,660	1,789,012	1,904,448	1,527,888	1,513,457	1,238,502
33211	Molds for heavy steel ingots.....	187,756	174,813	173,191	190,774	188,461	147,705	110,018	(NA)
33212	Cast iron pressure pipe.....	230,651	204,709	202,452	202,182	213,905	196,146	170,290	(NA)
33213	Cast iron soil pipe and fittings.....	152,078	150,769	135,515	127,705	138,990	119,768	108,346	(NA)
33214	All other gray iron castings.....	1,432,789	1,303,195	1,124,890	1,225,588	1,295,018	995,119	(NA)	(NA)
33210	Gray iron castings, n.s.k.....	43,031	(S)	(S)	(S)	(S)	69,150	(NA)	(NA)
33220	Malleable iron castings.....	313,638	289,792	248,015	262,419	285,791	203,310	204,916	178,424
33230	Steel castings.....	815,070	743,283	642,641	707,425	731,335	587,931	535,054	429,718

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
<b>MOLDS FOR HEAVY STEEL INGOTS (33211)</b>			<b>ALL OTHER GRAY IRON CASTINGS (33214)—Continued</b>			<b>MALLEABLE IRON CASTINGS (33220)—Continued</b>		
United States, total .....	187,756	147,705	Middle Atlantic.....	159,163	126,736	East North Central.....	247,552	157,822
Northeast and North Central.	175,691	136,653	New York.....	45,199	34,995	Ohio.....	64,136	33,889
Pennsylvania.....	97,223	70,547	New Jersey.....	23,745	26,057	Indiana.....	12,659	12,426
Illinois.....	42,473	39,539	Pennsylvania.....	90,219	65,684	Illinois.....	54,178	45,397
South and West.....	12,065	11,052	East North Central.....	961,056	646,303	Michigan.....	86,503	48,238
<b>CAST IRON PRESSURE PIPE AND FITTINGS (33212)</b>			Ohio.....	255,890	188,929	Wisconsin.....	30,076	17,872
United States, total .....	230,651	196,146	Indiana.....	119,191	78,288	West North Central.....	5,861	3,747
Northeast and North Central.	68,251	53,320	Illinois.....	88,360	67,319	South.....	7,121	( <sup>2</sup> )
New Jersey.....	36,240	( <sup>2</sup> )	Michigan.....	410,594	249,319	West.....	2,661	2,495
South and West.....	162,400	142,826	Wisconsin.....	87,021	62,448	California.....	1,922	( <sup>2</sup> )
Alabama.....	108,993	91,186	West North Central.....	58,914	49,168	<b>STEEL CASTINGS (33230)</b>		
Texas.....	10,631	11,703	Minnesota.....	14,237	10,975	United States, total ....	815,070	587,931
<b>CAST IRON SOIL PIPE AND FITTINGS (33213)</b>			Iowa.....	15,063	10,901	Northeast.....	13,028	15,239
United States, total .....	152,078	119,768	Missouri.....	21,493	19,513	Connecticut.....	6,679	4,745
Northeast.....	11,783	11,828	Kansas.....	6,018	5,418	Middle Atlantic.....	224,022	185,270
New Jersey.....	4,816	( <sup>2</sup> )	South.....	149,759	97,266	New York.....	43,649	28,178
North Central.....	6,585	5,976	Maryland.....	5,808	5,373	New Jersey.....	14,531	15,857
South.....	107,144	85,203	Virginia.....	31,789	17,249	Pennsylvania.....	165,842	141,235
Alabama.....	56,984	50,734	West Virginia.....	7,680	6,286	East North Central.....	383,087	243,793
West.....	26,566	16,761	North Carolina.....	5,219	3,332	Ohio.....	127,034	68,506
California.....	23,460	13,433	Georgia.....	2,117	1,782	Indiana.....	40,780	31,075
<b>ALL OTHER GRAY IRON CASTINGS (33214)</b>			Kentucky.....	10,407	( <sup>2</sup> )	Illinois.....	102,117	66,074
United States, total .....	1,432,789	995,119	Tennessee.....	33,137	20,331	Michigan.....	46,785	32,163
New England.....	51,090	33,308	Alabama.....	18,923	15,506	Wisconsin.....	66,371	45,975
Vermont.....	1,743	( <sup>2</sup> )	Louisiana.....	1,143	( <sup>2</sup> )	West North Central.....	53,427	34,716
Massachusetts.....	26,042	18,976	Oklahoma.....	2,797	2,291	Missouri.....	27,692	18,345
Rhode Island.....	3,491	2,226	Texas.....	18,302	13,744	South Atlantic.....	15,202	11,581
Connecticut.....	17,516	10,639	Mountain.....	7,860	7,812	Georgia.....	1,702	1,285
<b>MALLEABLE IRON CASTINGS (33220)</b>			Colorado.....	4,506	4,811	East South Central.....	14,105	10,325
United States, total.....	313,638	203,310	Pacific.....	44,947	34,526	West South Central.....	30,814	23,594
Northeast.....	50,443	32,722	Washington.....	5,327	3,805	Texas.....	17,466	12,752
Connecticut.....	4,382	3,923	California.....	36,685	28,428	Mountain.....	10,937	6,942
New York.....	12,225	( <sup>2</sup> )	<b>MALLEABLE IRON CASTINGS (33220)</b>			Pacific.....	70,448	56,469
Pennsylvania.....	27,568	15,518	United States, total.....	313,638	203,310	Washington.....	8,645	5,933
						Oregon.....	19,622	15,559
						California.....	42,181	34,977

<sup>1</sup>For the specified product classes shipments of over \$1 million were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 33211, New York, Ohio, Michigan, West Virginia, Kentucky, Colorado, Utah, and California; 33212, Massachusetts, Ohio, Illinois, Iowa, Virginia, Tennessee, Utah, and California; 33213, New York, Pennsylvania, Ohio, Michigan, Missouri, Maryland, Virginia, North Carolina, Florida, Tennessee, Texas, and Oregon; 33214, New Hampshire, Nebraska, South Dakota; 33220, New Hampshire, Massachusetts, Rhode Island, Minnesota, Iowa, Missouri, and Texas; 33230, New Hampshire, Minnesota, Iowa, Nebraska, Kansas, Delaware, West Virginia, Florida, Tennessee, Arkansas, Oklahoma, and Arizona.

<sup>2</sup>Shipments of over \$1 million were reported but exact figures are withheld to avoid disclosure of individual company figures.



TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	1963		1958	
		Quantity	Delivered cost	Quantity	Delivered cost
		(short tons)	(\$1,000)	(short tons)	(\$1,000)
INDUSTRY 3321.—GRAY IRON FOUNDRIES					
	Materials, containers and supplies, total.....	(X)	666,606	(X)	539,685
331051	Pig iron (excluding silvery iron).....	2,870,926	275,875	3,095,200	195,745
	Nonferrous metals, alloys and ferroalloys (ingot, pig, shot etc.):				
333404	Aluminum, unalloyed.....	5,505	2,352	522	255
333405	Aluminum-base alloys.....	5,587	2,388	1,943	997
333121	Copper, unalloyed (cathodes, ingot, cakes, slabs, etc.).....	474	300	649	372
334123	Copper-base alloy raw materials (ingot, billets, shot, waffle, hardeners, etc.)...	8,462	4,706	4,270	2,652
333348	Zinc and zinc-base alloys.....	164	44	135	51
333973	Magnesium and magnesium-base alloys.....	9,909	4,903	2,836	1,846
331312	Ferromanganese.....	20,492	3,004	7,256	2,065
331309	Other ferroalloys, including silvery iron.....	249,230	35,570	(NA)	11,750
	Scrap (purchased only):				
999811	Iron and steel.....	5,116,520	170,161	3,307,779	127,476
999808	Nonferrous metal scrap aluminum and aluminum-base alloy.....	(D)	(D)	350	135
999812	Copper and copper-base alloy.....	1,220	598	1,547	685
970099	All other materials and components, parts containers, and supplies consumed (excluding coal and coke).....	-	128,129	-	166,284
976000	Materials, containers and supplies, n.s.k. <sup>1</sup> .....	-	38,576	-	29,372
INDUSTRY 3322.—MALLEABLE IRON FOUNDRIES					
	Materials, containers and supplies, total.....	(X)	92,782	(X)	71,371
331051	Pig iron (excluding silvery iron).....	119,011	7,127	178,977	12,022
	Nonferrous metals, alloys and ferroalloys (ingot, pig, shot etc.):				
333404	Aluminum, unalloyed.....	1,054	472	88	43
333405	Aluminum-base alloys.....		797	797	469
333121	Copper, unalloyed (cathodes, ingot, cakes, slabs, etc.).....		398	597	363
334123	Copper-base alloy raw materials (ingot, billets, shot, waffle, hardeners, etc.)...		585	597	363
333348	Zinc and zinc-base alloys.....	488	120	(NA)	(NA)
331312	Ferromanganese.....	5,391	878	2,295	485
331309	Other ferroalloys, including silvery iron.....	94,689	8,742	(NA)	2,505
	Scrap (purchased only):				
999811	Iron and steel.....	781,002	24,383	445,250	17,638
999808	Nonferrous metal scrap aluminum and aluminum-base alloy.....	(D)	(D)	(NA)	(NA)
999812	Copper and copper-base alloy.....	(D)	(D)	(NA)	(NA)
970099	All other materials and components, parts containers, and supplies consumed (excluding coal and coke).....	(X)	48,220	(X)	36,679
976000	Materials, containers and supplies, n.s.k. <sup>1</sup> .....	(X)	2,442	(X)	1,167
INDUSTRY 3323.—STEEL FOUNDRIES					
	Materials, containers and supplies, total.....	(X)	235,267	(X)	164,007
331051	Pig iron (excluding silvery iron).....	129,709	8,593	83,126	5,575
	Nonferrous metals, alloys and ferroalloys (ingot, pig, shot etc.):				
333404	Aluminum, unalloyed.....	1,291	564	932	411
333405	Aluminum-base alloys.....	928	425	422	205
333121	Copper, unalloyed (cathodes, ingot, cakes, slabs, etc.).....	150	97	(NA)	30
334123	Copper-base alloy raw materials (ingot, billets, shot, waffle, hardeners, etc.)...	1,546	1,033	494	347
333973	Magnesium and magnesium-base alloy.....	(D)	(D)	(NA)	(NA)
331312	Ferromanganese.....	22,384	4,141	17,857	4,650
331309	Other ferroalloys, including silvery iron.....	50,482	15,380	(NA)	14,616
	Scrap (purchased only):				
999811	Iron and steel.....	1,204,561	38,527	864,120	34,538
999808	Nonferrous metal scrap aluminum and aluminum-base alloy.....	(NA)	764	(NA)	(NA)
999812	Copper and copper-base alloy.....	64	35	(NA)	(NA)
970099	All other materials and components, parts containers, and supplies consumed (excluding coal and coke).....	(X)	155,010	(X)	99,037
976000	Materials, containers and supplies, n.s.k. <sup>1</sup> .....	(X)	10,698	(X)	4,598

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

<sup>1</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

Item	Gray iron foundries (SIC 3321)	Malleable iron foundries (SIC 3322)	Steel foundries (SIC 3323)
Total cost of purchased fuels and electric energy.....\$1,000..	78,654	19,092	32,899
Total cost of purchased fuels.....do....	57,209	13,826	13,074
Bituminous coal, lignite, and anthracite:			
Quantity.....1,000 short tons..	522	217	105
Cost.....\$1,000..	3,278	2,395	956
Coke and breeze:			
Quantity.....1,000 short tons..	1,326	188	17
Cost.....\$1,000..	37,989	6,467	460
Fuel oil (distillate and residual):			
Quantity.....1,000 barrels of 42 gallons..	611	239	762
Cost.....\$1,000..	2,817	963	3,021
Gas (natural, manufactured, still, blast furnace, and coke oven):			
Quantity.....million cu. ft..	18,131	7,058	14,309
Cost.....\$1,000..	9,651	3,483	7,948
Other fuels.....do....	3,474	518	689
Electric energy:			
Purchased:			
Quantity.....million kw.-hrs..	1,563	441	1,589
Cost.....\$1,000..	21,445	5,266	19,825
Generated less sold.....million kw.-hrs..	16	11	9
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	1,019	222	595
Prime movers, total.....do....	110	30	36
Driving generators.....do....	30	7	11
Not driving generators.....do....	80	23	25
Electric motors, total.....do....	921	196	567
Driven by purchased energy.....do....	909	191	559
Driven by energy generated at establishment.....do....	12	5	7
Aggregate horsepower per 100 production workers.....	991	1,160	1,316

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3321-	GRAY IRON FOUNDRIES										
	Entire industry.....	1,139	120,528	730,279	104,239	214,285	596,109	1,168,478	813,568	1,984,944	64,823
	Establishments with—										
	90% or more specialization..	991	98,603	594,865	86,311	176,300	490,885	968,581	683,662	1,656,219	52,079
	75-89% specialization.....	54	7,539	43,839	5,872	11,935	32,590	66,762	38,748	106,329	4,970
33211	Molds for heavy steel ingots (primary product class of estab.)	11	2,776	18,789	2,348	4,447	14,983	39,014	65,454	103,720	2,583
33212	Cast iron pressure pipe (primary product class of estab.).....	29	10,368	63,833	8,518	17,445	48,913	114,203	127,771	243,953	9,652
	Establishments with—										
	90% or more specialization....	22	7,031	41,139	5,766	11,143	32,110	79,280	94,335	173,944	5,220
	75-89% specialization.....	3	3,112	21,454	2,565	5,927	15,946	33,271	32,389	67,304	4,403
33213	Cast iron soil pipe and fittings (primary product class of estab.)	41	12,170	59,410	11,026	20,550	50,657	92,909	81,736	178,367	4,924
	Establishments with—										
	90% or more specialization....	30	8,568	42,514	7,798	14,475	36,499	64,679	63,692	133,346	2,343
33214	All other gray iron castings (primary product class of estab.)	762	91,046	570,302	78,740	164,051	466,629	895,411	524,043	1,417,346	46,388
	Establishments with—										
	90% or more specialization....	614	69,591	438,917	61,079	127,653	364,346	700,269	400,358	1,100,922	36,043
	75-89% specialization.....	54	6,486	37,748	5,080	10,428	28,271	51,736	29,186	80,538	2,549
3322-	MALLEABLE IRON FOUNDRIES										
	Entire industry.....	81	22,297	141,967	18,832	38,789	112,670	204,557	111,831	317,528	16,283
	Establishments with—										
	90% or more specialization..	63	15,811	99,887	13,347	27,151	79,283	144,209	72,026	217,429	10,097
	75-89% specialization.....	6	1,382	7,442	1,173	2,346	5,873	10,694	4,927	15,540	385
3323-	STEEL FOUNDRIES										
	Entire industry.....	267	56,810	361,378	47,628	95,106	280,433	586,914	288,795	871,048	27,832
	Establishments with—										
	90% or more specialization..	195	39,403	245,500	33,150	65,879	190,781	389,080	193,830	578,166	19,140
	75-89% specialization.....	34	7,431	46,886	6,030	12,249	34,986	84,872	37,213	123,073	1,486

TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
Machine shop..... Foundry pattern shop.....  Machine shop..... Foundry pattern shop.....  Machine shop..... Foundry pattern shop.....	INDUSTRY 3321.—GRAY IRON FOUNDRIES							
	237 309	116 236	67 52	54 21	4,588 2,015	232 416	666 440	3,690 1,159
	INDUSTRY 3322.—MALLEABLE IRON FOUNDRIES							
	18 49	9 21	6 26	3 2	212 314	18 40	66 (D)	128 (D)
	INDUSTRY 3323.—STEEL FOUNDRIES							
	82 111	13 43	38 47	31 21	2,639 1,200	18 100	423 401	2,198 699

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below.

Item	Industry		
	3321	3322	3323
Total number of establishments in the industry.....	1,139	81	267
Number of establishments which reported one or more of the specified operations.....	438	56	150
Percent of industry production workers in these establishments.....	65-70	85-90	80-85
Number of establishments which reported "none" of the operations apply.....	334	15	70
Percent of industry production workers in these establishments.....	20-25	10-15	10-15
Percent of industry production workers in establishments which completed metalworking operations inquiry.....	90-95	95-100	90-95

(D) Withheld to avoid disclosing figures for individual companies.  
<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. These are not, based on total employment in the establishment.





## SMELTING AND REFINING OF NONFERROUS METALS AND ALLOYS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3331—Primary Smelting and Refining of Copper
- 3332—Primary Smelting and Refining of Lead
- 3333—Primary Smelting and Refining of Zinc
- 3334—Primary Production of Aluminum
- 3339—Primary Smelting and Refining of Nonferrous Metals, Not Elsewhere Classified
- 3341—Secondary Smelting, Refining, and Alloying of Nonferrous Metals and Alloys

Industries in this group produce primary and secondary nonferrous metals and alloys from ores and concentrates and from scrap. The five primary industries (3331 to 3339) are chiefly engaged in extracting metals from ores, concentrates, precipitates, etc. They include (1) establishments which perform smelting operations only and produce metals such as blister copper and lead base bullion, that are not yet of commercial grades; (2) establishments which refine the products of the smelters and produce commercially pure metal; and (3) those which produce refined metals from the ores and concentrates in a single continuous operation. These industries do not include milling or concentrating operations since these are generally located at mine sites and are considered as mineral operations rather than manufacturing activities. Such operations are covered in the 1963 Census of Mineral Industries (Major Group 10—Metal Mining). Also excluded are establishments which produce alumina from bauxite and those which process ores and concentrates primarily for the purpose of producing chemicals, such as zinc oxide. Such establishments are included in the chemical group of manufacturing industries. Primary smelters and refiners may also produce considerable quantities of such chemicals as sulfuric acid, zinc oxide, etc.

Inasmuch as many of the companies in the smelting and refining field operate their own mines and milling and concentrating plants, it has been difficult to establish a satisfactory value of the ore or concentrate transferred from the mine to the smelter. In an effort to achieve uniformity and to conform to reporting by smelters purchasing ore from other companies, the instructions accompanying the 1963 and 1958 report forms specified that such transfers should be reported at an approximate commercial value. In practice, this instruction was not feasible in all cases. In some instances there does not exist a comparable commercial form of the ore or concentrate transferred and in others, to convert to an approximate commercial value would have been unrealistic in view of the actual operations of the various establishments of an integrated company.

Since censuses of manufactures and of mineral industries were being conducted at the same time for 1963 and 1958, it was possible to check the reasonableness of the values of ores and concentrates transferred from mine and mill to smelter as reported by integrated companies. In a number of instances, the value f.o.b. mine and mills reported on the minerals form exceeded the cost of this material shown as an input on the manufactures report, whereas the latter figure should exceed the mine value by approximately



the transportation and handling costs. In such cases, the respondent was queried and more reasonable value and cost figures were obtained. These adjustments usually resulted in increased cost figures on the manufactures report, and consequently, reduced the computed "value added by manufacture."

In addition to the integration of mine and smelter, some companies operate both smelting and refining facilities while some are fully integrated from mine through refinery. The transfer of blister copper to refineries operated by the same company was often reported at other than commercial value for the reasons cited above. However, inasmuch as both the smelter and refinery are classified in the same industry, these estimated value figures do not cause a distortion of "value added" for the industry as a whole. However, the commodity data on shipments of smelter product and materials data on the consumption of these items are affected. For the copper industry, separate data are shown below for smelters and for refineries. These data must also be interpreted in the light of these limitations.

While a few companies transfer their refined product to fabricating plants under their own ownership, the effect of transfer values on the total figures is much less in this area. Often, while the refinery and fabricating plants may be under the same general financial control, the organizations are so distinct that the transfer of materials is made on the same basis as a commercial transaction.

For industries 3331 to 3339, toll processing is a particularly important activity and a considerable portion of the metal produced is handled on this basis, i.e., is processed by the smelter or the refinery for the owner of the metal for a fee. The fee may be a money payment or may be a combination of a money payment and a provision that the processing plant keep some of the metal. For both the 1963 and 1958 censuses of manufactures, no distinction was made between the plant's shipments of products produced from its own material and the shipments of metal retained as part of the fee for toll processing. However, separate data were reported for the metal returned to toll customers and for the fees received for toll processing.

Data on the tonnages of metals produced by plants engaged in primary smelting and refining of nonferrous metals are published annually by the Bureau of Mines of the U.S. Department of Interior in its Mineral Yearbook. Minor variations exist between the data shown here and those published by the Bureau of Mines. In addition to minor differences occurring from the submittal of separate reports to different agencies, reasons for the variation are the use by the Bureau of the Census of gross weight as contrasted with metal content by the Bureau of Mines for some metals and adjustments made by the Bureau of Mines for the amount of metal estimated as produced from scrap instead of ores or concentrates.

In general, the same definitions were used by the Bureau of the Census in the collection of product statistics as are used by the Bureau of Mines. In particular, it might be noted that the tonnages of refined lead and copper, produced by plants making refined lead and copper directly from ores and concentrates, are included in the lead base bullion and blister copper figures to arrive at a balance between the blister copper and refined copper figures and base bullion and refined lead figures. These tonnages have been considered as blister copper and lead base bullion produced and consumed in the same plant.

The production and shipments data shown in table 6A represent total production from materials of both domestic and foreign sources. The production and shipment figures shown for primary smelters and refiners include the production from scrap as well as from primary sources such as ores, concentrates, etc. A measure of the extent of secondary production by primary smelters and refiners is shown in table 7 which contains information on the quantity of scrap consumed. Also, a certain amount of the duplication arises if the data shown in table 6A for unalloyed and alloyed metals are combined in that unalloyed metals

are consumed by secondary smelters in producing metal alloys. This duplication can be measured by reference to the quantities of unalloyed metal consumed by secondary plants shown in table 7.

Data on the production of selected nonferrous metals by industry are presented in table 6A. These production data include quantities produced for sale, for interplant transfer, and for further consumption within the producing plant as well as toll production. However, the coverage ratios shown in table 5A are based on dollar value of shipments (including transfers to other plants of the company) but exclude the value of nonferrous metals produced and consumed within the same plant as well as shipments of metals produced for other companies on a toll basis.

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3331—PRIMARY SMELTING AND REFINING OF COPPER

This industry comprises establishments primarily engaged in smelting copper from the ore, and in refining copper by electrolytic or other processes. Establishments primarily engaged in rolling, drawing, or extruding copper are classified in industry 3351. For a detailed list of products of industry 3331, refer to table 6A, product codes 3331111 to 3331215.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Inasmuch as this industry includes both establishments smelting copper from ore, concentrates, etc., and establishments refining copper by electrolytic or other processes, the total cost of materials and the total value of shipments for this industry include extensive duplication resulting from the use of the products of the smelters as materials for the refiners. Thus, the value of blister copper, which represents an intermediate stage in the production of refined copper, appears twice in the total value of shipments and a corresponding duplication enters into the total cost of materials.

This problem of duplication is largely eliminated by treating smelters and refiners separately and by presenting individual figures for each group. The following table shows separate general statistics—employment, value added, value of shipments, etc., for the smelters and for the refiners of copper. In order to have the necessary data to prepare this table, where the smelting and refining operations at a single location are distinctly separate stages in the production of the metal, separate reports for smelting and refining departments were obtained. When separate smelting and refining stages are not necessary, such as in the case with copper produced by leaching and the production of Lake Superior copper, the establishments have been classified as refiners.



GENERAL STATISTICS FOR PRIMARY COPPER SMELTERS AND REFINERS: 1963 AND 1958

Item	1963		1958 <sup>r</sup>	
	Smelters	Refiners	Smelters	Refiners
Establishments.....number..	17	16	18	13
All employees:				
Total.....do..	5,261	9,688	6,105	8,617
Payroll.....\$1,000..	34,564	61,570	32,273	45,112
Production and related workers:				
Total.....number..	4,489	8,222	5,176	7,257
Man-hours.....1,000..	9,140	16,706	10,358	14,447
Wages.....\$1,000..	27,881	50,057	25,547	36,098
Value added by manufacture, adjusted.....do..	126,319	159,191	76,460	89,736
Cost of materials, fuel, electricity, contract work, and resales.....do..	538,685	431,289	345,836	347,398
Value of shipments.....do..	653,650	591,807	417,837	445,581

<sup>r</sup>Revised.

Value of shipments and other receipts of the Primary Copper Industry totaled \$1,245 million. This amount included shipments of primary copper (primary products) valued at \$1,049 million, shipments of other products (secondary products) valued at \$103 million, and miscellaneous receipts (mainly toll smelting of materials owned by others) at \$93 million.

The production index for the primary products of the industry increased to 140 in 1963 from the 1958 level of 112. The unit value index for 1963 was 105 compared to 90 in 1958. Both indexes were computed on a basis of 1954 = 100.

### 3332—PRIMARY SMELTING AND REFINING OF LEAD

This industry comprises establishments primarily engaged in smelting lead from the ore, and in refining lead by any process. Establishments primarily engaged in rolling, drawing, or extruding lead are classified in industry 3356. For a detailed list of products of industry 3332, refer to table 6A, product codes 3332111 to 3332398.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

This industry includes both establishments smelting lead ores and concentrates and establishments refining lead and, accordingly, the total cost of materials and the total value of shipments for this industry include extensive duplication resulting from the use of the products of the smelter (lead-base bullion) as the material for the refiners. Thus, the value of the lead-base bullion, which represents an intermediate stage in the production of refined lead, appears twice in the total value of shipments and a corresponding duplication enters into the total cost of materials.

Value of shipments and other receipts of the Primary Lead Industry totaled \$265 million.

### 3333—PRIMARY SMELTING AND REFINING OF ZINC

This industry comprises establishments primarily engaged in smelting zinc from the ore, and in refining zinc by any process. Establishments primarily engaged in rolling, drawing,

or extruding zinc are classified in industry 3356. For a detailed list of products of industry 3333, refer to table 6A, product codes 3333111 to 3333461.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Primary Zinc Industry totaled \$282 million. This amount included shipments of refined zinc (primary products) valued at \$251 million, shipments of other products (secondary products) valued at \$21 million, and miscellaneous receipts (mainly toll smelting of materials owned by others), at \$10 million.

This industry's shipments of refined zinc represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 90 percent. Secondary products shipped by this industry in 1963 consisted mainly of sulfuric acid (\$6 million) and miscellaneous nonferrous metals, n.e.c. (\$8 million).

Shipments of refined zinc by this industry represented 81 percent of all shipments of these products (\$309 million) by all industries. In 1958 the coverage ratio was 76 percent. Other industries shipping refined zinc consisted mainly of industry 3341, Secondary Nonferrous Metals, \$45 million.

The production index for the primary products of the industry increased to 125 in 1963 from the 1958 level of 101. The unit value index for 1963 was 96 compared to 92 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3334—PRIMARY PRODUCTION OF ALUMINUM

This industry comprises establishments primarily engaged in producing aluminum from alumina, and in refining aluminum by any process. Establishments primarily engaged in rolling, drawing, or extruding aluminum are classified in industry 3352. For a detailed list of products of industry 3334, refer to table 6A, product codes 3334711 to 3334881.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Primary Aluminum Industry totaled \$1,090 million. This amount included shipments of primary aluminum (primary products) valued at \$1,070 million, and miscellaneous receipts (mainly resales) at \$20 million.

This industry's shipments of primary aluminum represented 100 percent of its total product shipments. The industry specialization ratio in 1958 was also 100 percent.

Shipments of primary aluminum by this industry represented 75 percent of all shipments of these products (\$1,420 million) by all industries. In 1958 the coverage ratio was 76 percent. Other industries shipping primary aluminum consisted mainly of industry 3352, Aluminum Rolling and Drawing, \$98 million; and industry 3341, Secondary Nonferrous Metals, \$245 million.

The production index for the primary products of the industry increased to 201 in 1963 from the 1958 level of 113. The unit value index for 1963 was 109 compared to 121 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3339—PRIMARY SMELTING AND REFINING OF NONFERROUS METALS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in smelting and refining nonferrous metals, n.e.c. Establishments primarily engaged in rolling, drawing, and



extruding these nonferrous primary metals are classified in industry 3356, and the production of bullion at the site of the mine is classified in the mining industries. For a detailed list of products of industry 3339, refer to table 6A, product codes 3339511 to 3339798.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Primary Nonferrous Metals, N.E.C. Industry totaled \$212 million. This amount included shipments of primary nonferrous metals, n.e.c. (primary products) valued at \$170 million, shipments of other products (secondary products) valued at \$35 million, and miscellaneous receipts (mainly resales) at \$7 million.

This industry's shipments of primary nonferrous metals represented 83 percent of its total product shipments. The industry specialization ratio in 1958 was 92 percent. Secondary products shipped by this industry in 1963 included reagent and high purity grades of inorganic chemicals (\$6 million), and rolled, drawn, and extruded nonferrous mill products, n.e.c. (\$8 million).

Shipments of primary nonferrous metals, n.e.c., by this industry represented 39 percent of all shipments of these products (\$439 million) by all industries. In 1958 the coverage ratio was 24 percent. Other industries shipping primary nonferrous metals, n.e.c., consisted mainly of industry 3331, Primary Copper, \$93 million; and industry 3341, Secondary Nonferrous Metals, \$88 million.

#### 3341—SECONDARY SMELTING, REFINING, AND ALLOYING OF NONFERROUS METALS AND ALLOYS.

This industry comprises establishments primarily engaged in recovering nonferrous metals and alloys from new and used scrap and dross, but which are not engaged in further fabrication. This industry includes establishments engaged in both the recovery and alloying of precious metals. Plants engaged in the recovery of tin through secondary smelting and refining, as well as by chemical processes are included in this industry. Establishments primarily engaged in assembling, sorting, and breaking up scrap metal, without smelting and refining are classified in trade industries. For a detailed list of products of industry 3341, refer to table 6A, product codes 3341211 to 3341811.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Secondary Nonferrous Metals Industry totaled \$1,045 million. This amount included shipments of secondary nonferrous metals (primary products) valued at \$814 million, shipments of other products (secondary products) valued at \$55 million, and miscellaneous receipts (mainly resales) at \$177 million.

This industry's shipments of secondary nonferrous metals represented 94 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent. Secondary products shipped by this industry in 1963 included reagent and high purity grades of purity inorganic chemicals (\$9 million), and nonferrous rolling and drawing, n.e.c. (\$17 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 27 percent of the total industry shipments are represented by plants specializing in product class 33412, Secondary copper; 26 percent in product class

33413, Secondary lead; and 25 percent in product class 33417, Aluminum ingot, produced by secondary smelters.

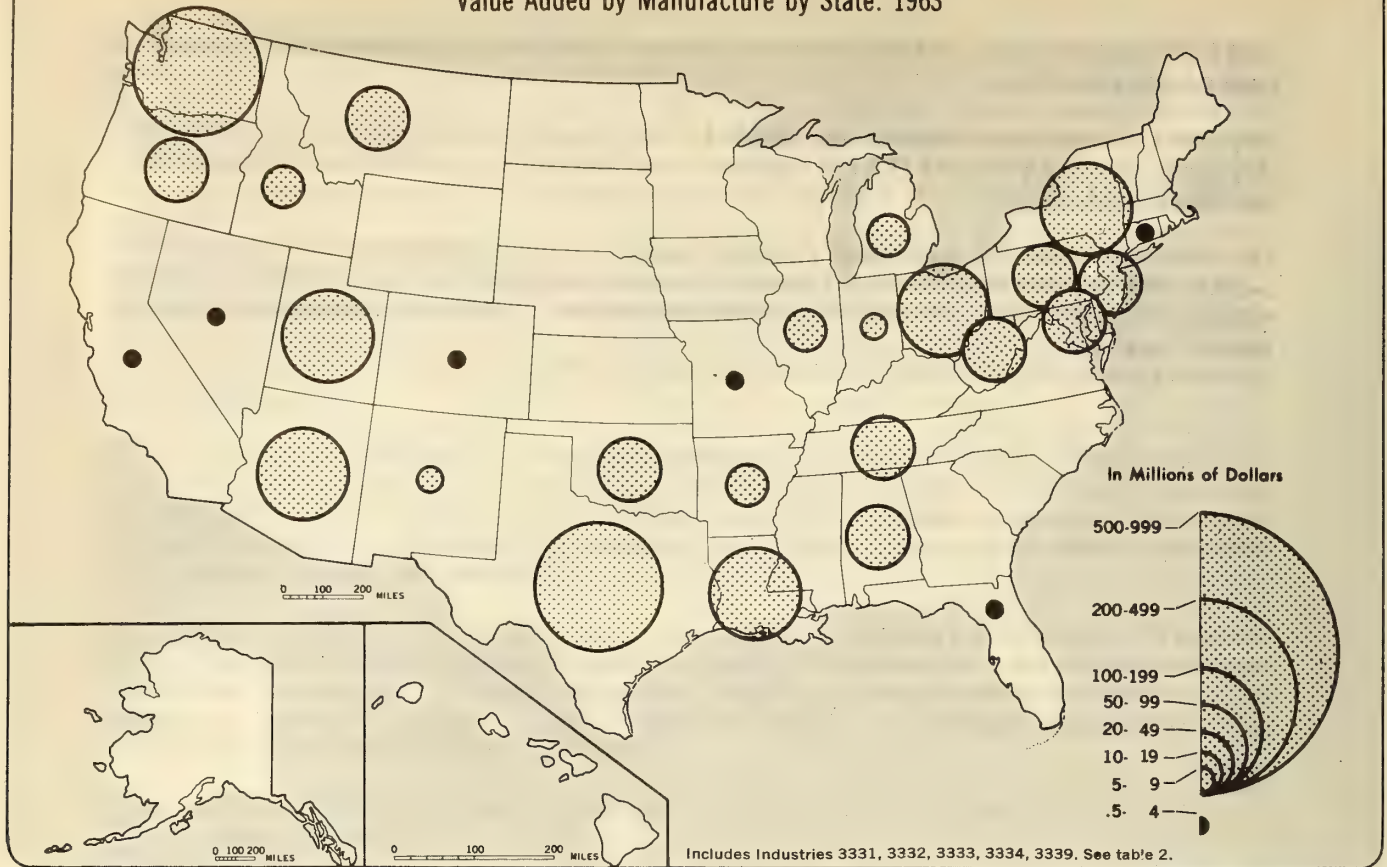
Shipments of secondary nonferrous metals by this industry represented 26 percent of all shipments of these products (\$3,103 million) by all industries. In 1958 the coverage ratio was 30 percent.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3341, e.g., Refined lead, 69 percent; Refined zinc, 16 percent; Aluminum ingot, 19 percent; Aluminum extrusion billet, 7 percent.



# PRIMARY NONFERROUS METAL: SIC 333

Value Added by Manufacture by State: 1963

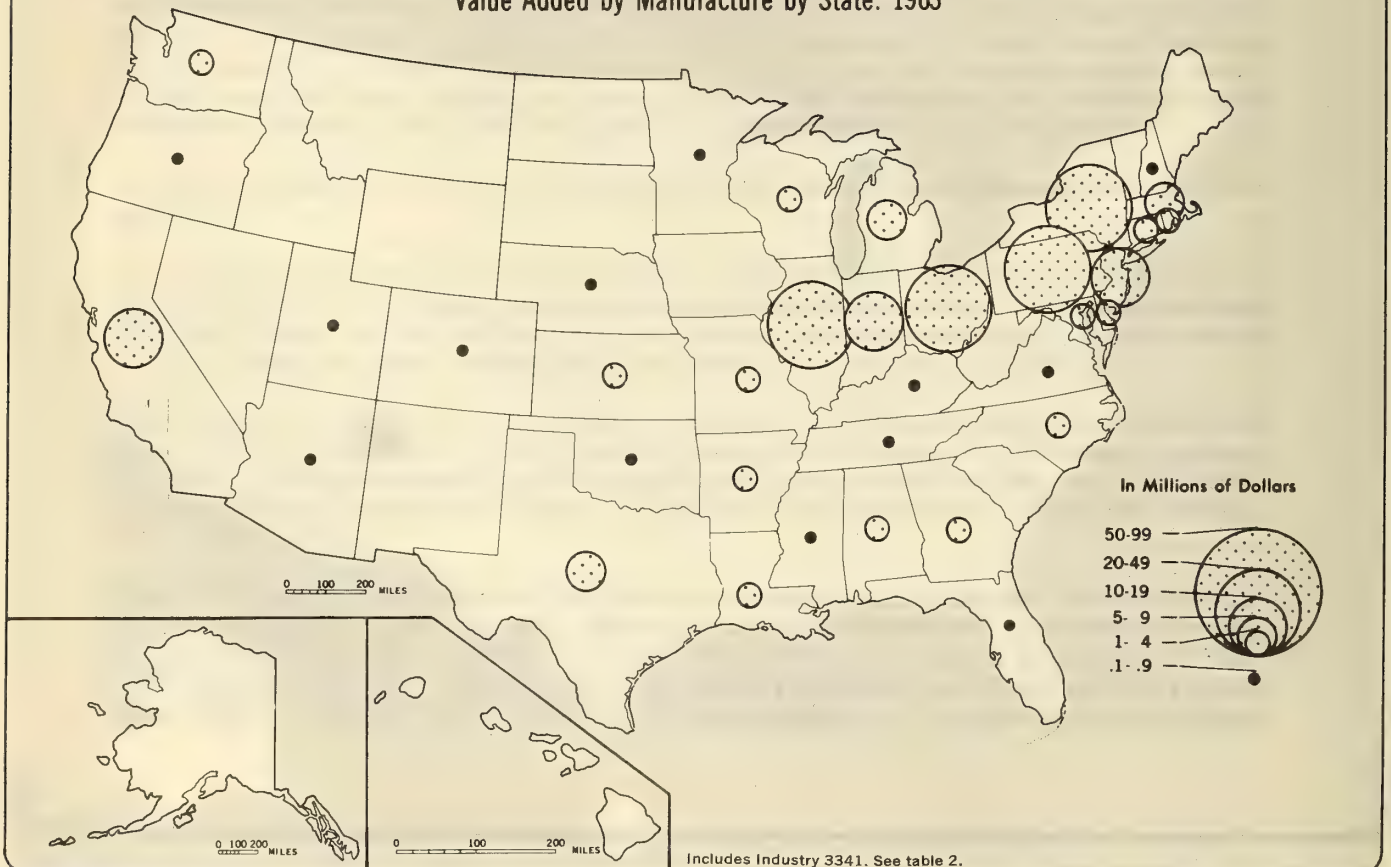


U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

# SECONDARY NONFERROUS METALS: SIC 334

Value Added by Manufacture by State: 1963



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new  (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3331.—PRIMARY COPPER														
1963.....	13	33	33	14,949	96,134	12,711	25,846	77,938	285,510	<sup>1</sup> 969,974	<sup>1</sup> 1,245,457	13,134	(NA)	(NA)
1962 <sup>2</sup> .....	(NA)	(NA)	(NA)	15,256	95,877	12,793	25,982	75,704	246,653	<sup>1</sup> 961,130	<sup>1</sup> 1,207,131	10,413	(NA)	(NA)
1961 <sup>2</sup> .....	(NA)	(NA)	(NA)	15,410	92,843	12,887	25,982	72,428	217,006	<sup>1</sup> 922,664	<sup>1</sup> 1,168,557	15,091	(NA)	(NA)
1960 <sup>2</sup> .....	(NA)	(NA)	(NA)	16,122	93,845	13,834	27,488	74,042	243,433	<sup>1</sup> 924,426	<sup>1</sup> 1,134,290	10,279	(NA)	(NA)
1959 <sup>2</sup> .....	(NA)	(NA)	(NA)	13,142	66,751	11,000	20,367	52,732	166,052	<sup>1</sup> 520,908	<sup>1</sup> 712,036	9,757	(NA)	(NA)
1958.....	11	31	30	14,722	77,385	12,397	24,805	61,645	166,214	687,530	861,087	19,334	(NA)	(NA)
1957 <sup>2</sup> .....	(NA)	(NA)	(NA)	15,050	79,314	12,980	26,635	64,926	184,813	( <sup>1</sup> )	( <sup>1</sup> )	11,729	(NA)	(NA)
1956 <sup>2</sup> .....	(NA)	(NA)	(NA)	15,104	78,563	13,048	27,556	64,530	276,420	( <sup>1</sup> )	( <sup>1</sup> )	8,056	(NA)	(NA)
1955 <sup>2</sup> .....	(NA)	(NA)	(NA)	14,219	67,098	12,119	25,159	54,704	293,571	( <sup>1</sup> )	( <sup>1</sup> )	7,150	(NA)	(NA)
1954.....	10	28	28	14,680	63,340	12,410	24,960	51,173	159,237	( <sup>1</sup> )	( <sup>1</sup> )	4,276	(NA)	(NA)
1953 <sup>2</sup> .....	(NA)	(NA)	(NA)	13,363	60,922	11,546	25,297	50,400	168,228	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1952 <sup>2</sup> .....	(NA)	(NA)	(NA)	12,838	55,348	10,974	23,932	45,105	120,494	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1951 <sup>2</sup> .....	(NA)	(NA)	(NA)	13,340	51,840	11,381	24,801	42,844	116,922	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1950 <sup>2</sup> .....	(NA)	(NA)	(NA)	14,089	48,617	12,149	26,147	40,426	99,899	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1949 <sup>2</sup> .....	(NA)	(NA)	(NA)	13,688	43,915	11,713	24,472	35,836	68,011	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1947.....	(NA)	27	26	14,629	44,790	13,065	29,751	38,967	93,196	( <sup>1</sup> )	( <sup>1</sup> )	4,176	(NA)	(NA)
INDUSTRY 3332.—PRIMARY LEAD														
1963.....	6	10	10	2,578	14,997	2,125	4,106	11,156	24,876	<sup>1</sup> 228,906	<sup>1</sup> 265,072	964	(NA)	(NA)
1962 <sup>2</sup> .....	(NA)	(NA)	(NA)	2,510	14,633	2,057	4,059	10,894	32,072	<sup>1</sup> 230,417	<sup>1</sup> 268,816	1,371	(NA)	(NA)
1961 <sup>2</sup> .....	(NA)	(NA)	(NA)	2,685	15,378	2,208	4,453	11,504	28,933	<sup>1</sup> 251,718	<sup>1</sup> 282,978	1,680	(NA)	(NA)
1960 <sup>2</sup> .....	(NA)	(NA)	(NA)	2,751	15,740	2,214	4,581	11,623	40,122	<sup>1</sup> 281,478	<sup>1</sup> 316,673	922	(NA)	(NA)
1959 <sup>2</sup> .....	(NA)	(NA)	(NA)	2,603	13,824	2,018	3,932	9,736	32,018	<sup>1</sup> 177,752	<sup>1</sup> 208,876	(271)	(NA)	(NA)
1958.....	5	13	13	3,563	18,182	2,864	5,687	13,599	36,325	<sup>1</sup> 292,506	<sup>1</sup> 316,934	725	(NA)	(NA)
1957 <sup>2</sup> .....	(NA)	(NA)	(NA)	4,319	21,494	3,567	7,159	16,457	46,592	( <sup>1</sup> )	( <sup>1</sup> )	3,118	(NA)	(NA)
1956 <sup>2</sup> .....	(NA)	(NA)	(NA)	4,378	21,178	3,632	7,388	16,287	39,780	( <sup>1</sup> )	( <sup>1</sup> )	2,042	(NA)	(NA)
1955 <sup>2</sup> .....	(NA)	(NA)	(NA)	4,019	17,905	3,344	6,544	13,561	42,329	( <sup>1</sup> )	( <sup>1</sup> )	1,204	(NA)	(NA)
1954.....	5	13	13	4,063	17,393	3,312	6,659	13,142	30,772	( <sup>1</sup> )	( <sup>1</sup> )	1,404	(NA)	(NA)
1953 <sup>2</sup> .....	(NA)	(NA)	(NA)	4,668	19,217	3,751	7,634	14,501	31,731	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1952 <sup>2</sup> .....	(NA)	(NA)	(NA)	4,626	18,801	3,721	7,718	14,315	43,678	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1951 <sup>2</sup> .....	(NA)	(NA)	(NA)	4,618	16,848	3,757	7,755	12,986	42,200	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1950 <sup>2</sup> .....	(NA)	(NA)	(NA)	4,738	16,007	3,889	8,031	12,359	40,314	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1949 <sup>2</sup> .....	(NA)	(NA)	(NA)	5,169	16,745	4,256	8,764	12,963	31,903	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1947.....	6	16	16	4,663	14,082	4,022	8,879	11,610	35,902	( <sup>1</sup> )	( <sup>1</sup> )	2,649	(NA)	100
INDUSTRY 3333.—PRIMARY ZINC														
1963.....	11	18	18	8,065	47,760	6,575	13,245	36,238	98,789	173,473	281,537	4,734	92	81
1962 <sup>2</sup> .....	(NA)	(NA)	(NA)	8,449	48,535	6,892	14,315	36,934	76,297	177,201	258,468	4,501	(NA)	(NA)
1961 <sup>2</sup> .....	(NA)	(NA)	(NA)	8,361	46,875	6,739	14,260	35,655	84,206	165,515	257,410	2,739	(NA)	(NA)
1960 <sup>2</sup> .....	(NA)	(NA)	(NA)	8,582	47,675	6,713	14,129	34,417	94,611	168,627	252,408	3,017	(NA)	(NA)
1959 <sup>2</sup> .....	(NA)	(NA)	(NA)	8,625	45,500	6,823	14,446	33,710	80,581	153,114	236,403	4,080	(NA)	(NA)
1958.....	11	20	20	8,923	44,078	7,000	13,788	32,633	71,653	140,197	208,993	13,445	90	76
1957 <sup>2</sup> .....	(NA)	(NA)	(NA)	11,030	54,282	8,988	17,822	41,286	96,477	193,117	280,628	20,006	88	(NA)
1956 <sup>2</sup> .....	(NA)	(NA)	(NA)	11,182	54,328	9,343	18,857	42,077	112,823	219,090	325,186	12,290	(NA)	(NA)
1955 <sup>2</sup> .....	(NA)	(NA)	(NA)	10,772	48,944	8,951	18,182	38,307	110,331	183,686	297,900	3,590	(NA)	(NA)
1954.....	13	21	21	10,470	44,042	8,638	16,546	34,104	87,501	143,768	231,340	5,276	87	(NA)
1953 <sup>2</sup> .....	(NA)	(NA)	(NA)	11,399	50,661	9,903	20,756	42,888	80,470	187,773	268,243	(NA)	(NA)	(NA)
1952 <sup>2</sup> .....	(NA)	(NA)	(NA)	11,333	49,036	9,758	20,524	40,971	106,693	229,472	336,165	(NA)	(NA)	(NA)
1951 <sup>2</sup> .....	(NA)	(NA)	(NA)	11,033	45,048	9,470	19,761	37,512	124,983	221,353	346,336	(NA)	(NA)	(NA)
1950 <sup>2</sup> .....	(NA)	(NA)	(NA)	11,263	39,975	9,878	20,131	34,163	99,015	160,652	259,667	(NA)	(NA)	(NA)
1949 <sup>2</sup> .....	(NA)	(NA)	(NA)	11,154	38,999	9,610	19,791	32,456	68,828	146,649	215,477	(NA)	(NA)	(NA)
1947.....	14	20	20	12,424	35,476	11,088	22,232	30,475	77,068	113,928	190,996	6,739	(NA)	(NA)
INDUSTRY 3334.—PRIMARY ALUMINUM														
1963.....	7	23	22	18,133	134,116	14,459	29,487	101,399	499,576	571,940	1,089,977	62,172	100	75
1962 <sup>2</sup> .....	(NA)	(NA)	(NA)	17,221	125,584	13,677	27,924	94,629	471,980	521,756	1,014,921	10,798	(NA)	(NA)
1961 <sup>2</sup> .....	(NA)	(NA)	(NA)	16,201	117,151	12,651	26,087	86,170	454,206	489,105	953,894	19,258	(NA)	(NA)
1960 <sup>2</sup> .....	(NA)	(NA)	(NA)	17,848	123,956	14,120	29,133	92,498	472,711	503,071	921,215	26,647	(NA)	(NA)
1959 <sup>2</sup> .....	(NA)	(NA)	(NA)	17,997	122,606	14,362	30,022	92,622	459,285	476,741	953,775	38,534	(NA)	(NA)
1958.....	6	20	20	17,381	111,588	13,428	27,738	82,750	383,836	411,758	808,822	142,293	100	76
1957 <sup>2</sup> .....	(NA)	(NA)	(NA)	20,500	117,814	16,327	33,430	89,678	406,302	421,982	804,049	150,955	(NA)	(NA)
1956 <sup>2</sup> .....	(NA)	(NA)	(NA)	21,120	112,070	17,046	34,752	86,547	389,617	409,901	767,227	103,997	(NA)	(NA)
1955 <sup>2</sup> .....	(NA)	(NA)	(NA)	20,020	99,771	16,382	33,886	78,418	328,651	361,472	692,732	74,941	(NA)	(NA)
1954.....	3	16	16	20,626	96,813	16,982	35,335	77,174	258,944	339,964	604,195	26,073	100	78

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new  (\$1,000)	Spec- ializa- tion ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3334.—PRIMARY ALUMINUM—Continued														
1953 <sup>2</sup> .....	(NA)	(NA)	(NA)	19,568	86,894	16,726	34,183	70,991	169,656	306,906	476,562	(NA)	(NA)	(NA)
1952 <sup>2</sup> .....	(NA)	(NA)	(NA)	14,272	60,143	11,735	24,923	47,653	133,725	206,291	340,016	(NA)	(NA)	(NA)
1951 <sup>2</sup> .....	(NA)	(NA)	(NA)	12,162	46,793	10,133	21,991	37,729	126,939	174,841	301,780	(NA)	(NA)	(NA)
1950 <sup>2</sup> .....	(NA)	(NA)	(NA)	10,663	37,151	8,869	18,215	29,707	105,264	136,268	241,532	(NA)	(NA)	(NA)
1949 <sup>2</sup> .....	(NA)	(NA)	(NA)	8,928	31,155	7,314	16,769	24,596	66,837	117,501	184,338	(NA)	(NA)	(NA)
1947 <sup>2</sup> .....	<sup>3</sup>	11	11	8,919	26,398	7,336	16,014	20,930	65,262	95,748	161,010	2,791	(NA)	(NA)
1939 <sup>3</sup> .....	(NA)	4	(NA)	3,345	5,120	2,802	(NA)	3,928	36,885	27,715	64,600	(NA)	(NA)	(NA)
INDUSTRY 3339.—PRIMARY NONFERROUS METALS, N.E.C.														
1963 <sup>2</sup> .....	32	35	26	5,064	34,807	3,782	8,148	24,701	103,830	115,519	212,176	6,435	83	39
1962 <sup>2</sup> .....	(NA)	(NA)	(NA)	4,886	30,746	3,657	7,645	22,205	93,391	80,565	169,668	6,400	(NA)	(NA)
1961 <sup>2</sup> .....	(NA)	(NA)	(NA)	4,037	24,560	3,015	6,448	18,536	82,399	65,138	148,466	13,749	(NA)	(NA)
1960 <sup>2</sup> .....	(NA)	(NA)	(NA)	4,110	26,417	3,239	6,961	19,623	90,042	(NA)	149,192	11,479	(NA)	(NA)
1959 <sup>2</sup> .....	(NA)	(NA)	(NA)	2,651	17,268	1,941	4,276	11,920	54,539	45,335	99,154	(S)	(NA)	(NA)
1958 <sup>2</sup> .....	24	29	18	2,658	15,939	1,920	3,976	10,737	50,495	42,076	96,565	3,994	92	24
1954 <sup>2</sup> .....	24	25	10	3,704	18,605	2,853	5,509	13,061	50,953	136,870	187,869	19,069	90	28
1952 <sup>2</sup> .....	(NA)	(NA)	(NA)	6,601	27,829	5,461	11,359	21,864	51,432	65,306	111,738	(NA)	(NA)	(NA)
1951 <sup>2</sup> .....	(NA)	(NA)	(NA)	4,048	15,387	3,365	6,843	12,891	33,308	34,987	68,295	(NA)	(NA)	(NA)
1950 <sup>2</sup> .....	(NA)	(NA)	(NA)	1,968	7,119	1,661	3,349	5,756	23,401	15,284	38,685	(NA)	(NA)	(NA)
1947 <sup>2</sup> .....	(NA)	15	10	2,482	6,959	2,124	4,118	5,974	13,267	10,986	24,253	951	(NA)	(NA)
INDUSTRY 3341.—SECONDARY NONFERROUS METALS														
1963 <sup>2</sup> .....	406	459	179	15,445	96,302	11,336	23,779	60,510	228,190	823,132	1,045,522	17,891	94	26
1962 <sup>2</sup> .....	(NA)	(NA)	(NA)	15,718	99,048	12,425	26,362	64,567	188,850	781,923	971,797	10,443	(NA)	(NA)
1961 <sup>2</sup> .....	(NA)	(NA)	(NA)	15,821	97,122	12,353	26,893	62,826	180,823	781,977	957,822	14,876	(NA)	(NA)
1960 <sup>2</sup> .....	(NA)	(NA)	(NA)	15,390	87,874	11,778	25,648	54,672	158,279	721,596	884,873	7,596	(NA)	(NA)
1959 <sup>2</sup> .....	(NA)	(NA)	(NA)	16,203	89,093	12,571	26,274	55,863	166,695	754,298	906,072	7,454	(NA)	(NA)
1958 <sup>2</sup> .....	349	387	152	14,441	75,669	10,813	21,194	46,869	147,262	581,589	724,013	5,355	93	30
1957 <sup>2</sup> .....	(NA)	(NA)	(NA)	17,167	86,875	13,087	26,077	56,060	141,271	729,561	885,717	(S)	(NA)	(NA)
1956 <sup>2</sup> .....	(NA)	(NA)	(NA)	17,969	88,883	13,901	28,357	58,216	199,258	902,925	1,077,047	9,581	(NA)	(NA)
1955 <sup>2</sup> .....	(NA)	(NA)	(NA)	17,635	82,696	13,648	28,272	55,024	203,661	877,889	1,070,536	(S)	(NA)	(NA)
1954 <sup>2</sup> .....	(NA)	354	140	15,155	68,822	11,754	24,146	44,867	144,800	599,392	742,188	9,254	(NA)	(NA)
1953 <sup>2</sup> .....	(NA)	(NA)	(NA)	12,792	58,800	9,877	20,870	40,133	107,714	603,559	711,273	(NA)	(NA)	(NA)
1952 <sup>2</sup> .....	(NA)	(NA)	(NA)	16,853	72,943	12,732	26,414	45,719	150,135	697,949	848,084	(NA)	(NA)	(NA)
1951 <sup>2</sup> .....	(NA)	(NA)	(NA)	16,946	68,774	12,879	27,554	44,837	154,635	810,497	965,132	(NA)	(NA)	(NA)
1950 <sup>2</sup> .....	(NA)	(NA)	(NA)	15,981	59,138	12,337	26,123	38,964	137,660	723,242	860,902	(NA)	(NA)	(NA)
1949 <sup>2</sup> .....	(NA)	(NA)	(NA)	14,024	49,069	10,476	21,965	30,799	99,372	544,896	644,268	(NA)	(NA)	(NA)
1947 <sup>2</sup> .....	272	321	(NA)	18,089	55,897	14,511	31,023	38,561	119,153	602,803	721,956	7,225	(NA)	(NA)
1939 <sup>3</sup> .....	(NA)	280	(NA)	(NA)	(NA)	8,109	(NA)	11,320	41,381	212,182	235,563	(NA)	(NA)	(NA)
INDUSTRIES 3331, 3332, 3333, and 3339.—PRIMARY COPPER, PRIMARY LEAD, PRIMARY ZINC, AND PRIMARY NONFERROUS METALS, N.E.C.														
1963 <sup>2</sup> .....	62	96	87	30,656	193,698	25,193	51,345	150,033	513,005	<sup>1</sup> 1,487,872	<sup>1</sup> 2,004,242	25,267	(NA)	(NA)
1962 <sup>2</sup> .....	(NA)	(NA)	(NA)	31,101	189,791	25,399	52,001	145,737	448,413	<sup>1</sup> 1,449,313	<sup>1</sup> 1,804,083	22,685	(NA)	(NA)
1961 <sup>2</sup> .....	(NA)	(NA)	(NA)	30,493	179,656	24,849	51,143	138,123	412,544	<sup>1</sup> 1,650,928	<sup>1</sup> 1,857,411	33,259	(NA)	(NA)
1960 <sup>2</sup> .....	(NA)	(NA)	(NA)	31,565	183,677	26,000	53,159	139,705	468,208	(NA)	<sup>1</sup> 1,852,563	25,697	(NA)	(NA)
1959 <sup>2</sup> .....	(NA)	(NA)	(NA)	27,021	143,343	21,782	43,021	108,098	333,190	<sup>1</sup> 897,109	<sup>1</sup> 1,256,469	(S)	(NA)	(NA)
1958 <sup>2</sup> .....	(NA)	92	80	29,705	154,315	24,068	47,927	117,821	315,264	( <sup>1</sup> )	( <sup>1</sup> )	33,321	(NA)	(NA)
1954 <sup>2</sup> .....	(NA)	87	72	32,917	143,380	27,213	53,674	111,480	328,463	( <sup>1</sup> )	( <sup>1</sup> )	30,025	(NA)	(NA)
1952 <sup>2</sup> .....	(NA)	(NA)	(NA)	35,398	151,014	29,914	63,533	122,255	370,617	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1951 <sup>2</sup> .....	(NA)	(NA)	(NA)	33,039	129,123	27,973	59,160	106,233	371,876	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1950 <sup>2</sup> .....	(NA)	(NA)	(NA)	32,058	111,718	27,577	57,658	92,704	300,619	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1947 <sup>2</sup> .....	(NA)	78	72	34,198	101,307	30,299	64,980	86,846	260,895	( <sup>1</sup> )	( <sup>1</sup> )	14,515	(NA)	(NA)
1939 <sup>3</sup> .....	(NA)	59	(NA)	29,561	44,703	24,828	(NA)	34,483	100,117	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	62	(NA)	33,485	51,876	29,815	(NA)	43,255	129,789	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1935 <sup>2</sup> .....	(NA)	62	(NA)	25,267	31,001	22,478	(NA)	24,887	77,974	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1933 <sup>2</sup> .....	(NA)	59	(NA)	16,564	17,418	14,567	(NA)	13,549	41,401	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1931 <sup>2</sup> .....	(NA)	76	(NA)	(NA)	(NA)	18,477	(NA)	22,716	72,876	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1929 <sup>2</sup> .....	(NA)	75	(NA)	34,928	60,057	30,981	(NA)	49,239	146,775	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1927 <sup>2</sup> .....	(NA)	69	(NA)	33,916	52,923	30,510	(NA)	44,800	135,493	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1925 <sup>2</sup> .....	(NA)	71	(NA)	36,251	55,226	32,992	(NA)	47,948	153,061	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)
1923 <sup>2</sup> .....	(NA)	84	(NA)	(NA)	(NA)	34,889	(NA)	51,123	121,803	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	(NA)

See footnotes at end of table.

TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
INDUSTRIES 3331, 3332, 3333, and 3339.—PRIMARY COPPER, PRIMARY LEAD, PRIMARY ZINC, AND PRIMARY NONFERROUS METALS, N.E.C.—Continued														
1921.....	(NA)	80	(NA)	21,889	30,704	15,580	(NA)	24,401	58,695	(1)	(1)	(NA)	(NA)	(NA)
1919.....	(NA)	98	(NA)	41,910	63,146	37,579	(NA)	52,686	118,220	(1)	(1)	(NA)	(NA)	(NA)
1914.....	(NA)	88	(NA)	37,952	35,573	34,733	(NA)	28,983	96,395	(1)	(1)	(NA)	(NA)	(NA)
1909.....	(NA)	95	(NA)	32,037	27,925	29,707	(NA)	23,037	69,692	(1)	(1)	(NA)	(NA)	(NA)
1904.....	(NA)	103	(NA)	28,540	23,055	26,853	(NA)	20,058	68,674	(1)	(1)	(NA)	(NA)	(NA)
1899.....	(NA)	117	(NA)	25,633	18,124	24,512	(NA)	15,974	79,131	(1)	(1)	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: **All employees:** For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). **Production workers:** For 1947 and prior years figures represent an average of 12 monthly figures. **Value added:** Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. **Cost of materials:** Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. **Value of shipments:** Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

(S) Withheld because the estimates did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

n.e.c. Not elsewhere classified.

<sup>1</sup>The value of shipments and cost of materials for this industry include extensive duplication arising from shipments between establishments in the same industry. These data are not shown for the years 1947-1957. For further explanation see appendix A, "Value of Shipments."

<sup>2</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>3</sup>No comparable figures are available for earlier years.

<sup>4</sup>Data for 1954 have been revised to exclude establishments originally classified in this industry. Accordingly, data for 1953 and earlier years are not comparable with 1954-1963. Selected data for 1954 on a basis comparable with data for earlier years are as follows: Number of establishments, 360; total employment, 15,775; unadjusted value added by manufacture, \$142,329 thousand; cost of materials, \$657,519 thousand; and value of shipments, \$807,725 thousand.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3331.—PRIMARY COPPER													
Total.....	33	33	14,949	96,134	12,711	25,846	77,938	285,510	969,974	1,245,457	13,134	14,722	166,214
Middle Atlantic....	8	8	5,032	33,063	4,177	8,744	26,252	47,360	126,324	183,936	5,079	5,180	48,926
North Central and South.....	8	8	3,020	18,114	2,595	5,266	15,165	51,606	133,348	173,433	1,493	2,306	18,981
West.....	17	17	6,897	44,957	5,939	11,836	36,521	186,544	710,302	888,088	6,562	7,236	98,307
Arizona.....	8	8	2,407	16,952	2,048	4,404	13,154	56,961	293,768	353,795	(D)	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3332.—PRIMARY LEAD													
Total.....	10	10	2,578	14,997	2,125	4,106	11,156	24,876	228,906	265,072	964	3,563	36,325
INDUSTRY 3333.—PRIMARY ZINC													
Total.....	18	18	8,065	47,760	6,575	13,245	36,238	98,789	173,473	281,537	4,734	8,923	71,653
South.....	8	8	3,492	20,317	3,136	6,387	17,386	48,170	68,315	121,296	2,280	3,372	33,277
Oklahoma.....	3	3	1,601	9,050	1,452	2,871	7,614	25,225	25,303	51,134	1,846	( <sup>2</sup> )	( <sup>2</sup> )
All other divisions	10	10	4,573	27,443	3,439	6,858	18,852	50,619	105,158	160,241	2,454	5,551	38,376
INDUSTRY 3334.—PRIMARY ALUMINUM													
Total.....	23	22	18,133	134,116	14,459	29,487	101,399	499,576	571,940	1,089,977	62,172	17,381	383,836
West South Central.	6	6	6,436	47,066	5,270	10,734	36,236	168,107	167,711	342,818	6,043	6,803	176,537
West.....	8	7	4,765	35,201	3,739	7,562	26,201	159,270	152,086	315,170	6,705	4,564	110,958
All other divisions.....	9	9	6,932	51,849	5,450	11,191	38,962	172,199	252,143	431,989	49,424	6,014	96,341
INDUSTRY 3339.—PRIMARY NONFERROUS METALS, N.E.C.													
Total.....	35	26	5,064	34,807	3,782	8,148	24,701	103,830	115,519	212,176	6,435	2,658	50,495
Northeast.....	12	5	1,058	7,387	697	1,582	4,562	26,873	55,048	73,272	1,150	421	6,551
East North Central.	7	6	1,160	8,718	741	1,722	5,504	30,742	13,581	42,653	2,066	1,480	36,106
South.....	10	9	1,815	12,335	1,524	3,167	9,759	38,600	33,734	70,454	2,396	757	7,838
West.....	6	6	1,031	6,367	820	1,677	4,876	7,615	13,156	95,797	823		
INDUSTRY 3341.—SECONDARY NONFERROUS METALS													
Total.....	459	179	15,445	96,302	11,336	23,779	60,510	228,190	823,132	1,045,522	17,891	14,441	147,262
New England.....	35	9	380	2,325	246	560	1,284	13,755	27,566	41,025	181	424	8,145
Middle Atlantic....	144	49	5,269	32,426	3,731	7,636	19,811	71,470	284,215	358,993	7,937	4,298	43,739
New York.....	63	15	1,867	11,953	1,317	2,645	7,440	27,871	108,296	134,428	5,639	1,488	10,965
New Jersey.....	39	17	1,653	10,097	1,137	2,345	5,847	18,654	102,274	126,607	1,533	1,291	11,316
Pennsylvania.....	42	17	1,749	10,376	1,277	2,656	6,524	24,955	73,645	97,958	765	1,519	21,458
East North Central.	132	61	5,576	36,944	4,231	8,986	23,842	84,656	336,743	415,759	5,562	6,278	64,011
Ohio.....	38	20	1,562	10,765	1,231	2,718	7,246	26,101	85,920	110,613	1,611	( <sup>2</sup> )	( <sup>2</sup> )
Indiana.....	13	6	930	6,326	670	1,404	3,994	12,488	43,625	55,208	557	( <sup>2</sup> )	( <sup>2</sup> )
Illinois.....	45	25	2,550	16,498	1,904	4,018	10,446	35,707	184,231	216,815	3,121	3,489	35,992
Michigan.....	27	8	436	2,695	341	708	1,697	7,999	20,540	28,370	161	407	2,466
Wisconsin.....	9	2	98	660	85	138	459	2,361	2,427	4,753	112	( <sup>2</sup> )	( <sup>2</sup> )
West North Central.	17	9	477	2,858	371	744	1,659	5,141	23,941	28,594	469	482	4,362
Missouri.....	10	3	167	1,057	120	231	522	2,532	7,079	9,563	85	185	1,941
South Atlantic.....	25	10	761	4,335	591	1,297	3,008	13,704	36,056	49,326	1,303	543	6,338
Maryland.....	8	3	208	1,185	144	358	664	4,530	11,892	16,503	(D)	( <sup>2</sup> )	( <sup>2</sup> )
East South Central.	13	7	433	2,099	361	795	1,486	4,782	14,448	19,133	456	190	1,743
Alabama.....	6	3	296	1,436	245	521	1,049	3,462	10,389	13,888	393	( <sup>2</sup> )	( <sup>2</sup> )

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	INDUSTRY 3341.—SECONDARY NONFERROUS METALS—Continued												
West South Central.	21	11	760	3,716	639	1,346	2,766	10,938	26,690	36,557	433	552	2,843
Texas.....	11	6	505	2,574	413	864	1,857	8,006	17,437	24,784	211	363	1,422
Mountain.....	10	2	108	520	87	183	368	921	1,916	2,858	19	82	788
Pacific.....	62	21	1,681	11,079	1,079	2,222	6,286	22,823	71,557	93,277	1,531	1,592	15,293
California.....	52	18	1,509	9,795	964	1,953	5,495	19,991	62,624	81,213	875	1,479	14,096

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3331, Primary Copper: Middle Atlantic—New York, 3 (500-999); New Jersey, 4 (2,500-4,999); Pennsylvania, 1 (100-249); East North Central—Michigan, 3 (337); South Atlantic—Maryland, 2 (1,000-2,499); East South Central—Tennessee, 1 (20-99); West South Central—Texas, 2 (1,000-2,499); Mountain—Montana, 2 (1,000-2,499); New Mexico, 2 (100-249); Utah, 2 (1,000-2,499); Nevada, 1 (250-499); Pacific—Washington, 2 (500-999).

SIC 3332, Primary Lead: East North Central—Indiana, 1 (100-249); West North Central—Missouri, 1 (250-499); Nebraska, 1 (250-499); South Atlantic—Florida, 1 (20-99); West South Central—Texas, 1 (250-499); Mountain—Montana, 1 (100-249); Idaho, 1 (500-999); Utah, 1 (100-249); Pacific—California, 2 (250-499).

SIC 3333, Primary Zinc: Middle Atlantic—Pennsylvania, 2 (1,000-2,499); East North Central—Illinois, 2 (500-999); West North Central—Kansas, 1 (20-99); South Atlantic—West Virginia, 1 (100-249); West South Central—Arkansas, 1 (100-249); Texas, 2 (1,000-2,499); Mountain—Montana, 3 (500-999); Idaho, 1 (500-999); Utah, 1 (100-249).

SIC 3334, Primary Aluminum: Middle Atlantic—New York, 2 (1,000-2,499); East North Central—Ohio, 1 (1,000-2,499); Indiana, 1 (250-499); South Atlantic—West Virginia, 1 (500-999); North Carolina, 1 (250-499); East South Central—Tennessee, 2 (1,000-2,499); Alabama, 1 (1,000-2,499); West South Central—Arkansas, 2 (1,000-2,499); Louisiana, 1 (1,000-2,499); Texas, 3 (2,500-4,999); Mountain—Montana, 1 (500-999); Pacific—Washington, 5 (2,500-4,999); Oregon, 2 (500-999).

SIC 3339, Primary Nonferrous Metals, N.E.C.: New England—Massachusetts, 2 (1-19); Connecticut, 1 (100-249); Middle Atlantic—New York, 2 (20-99); New Jersey, 3 (20-99); Pennsylvania, 4 (819); East North Central—Ohio, 2 (500-999); Illinois, 2 (100-249); Michigan, 3 (179); South Atlantic—Florida, 1 (20-99); East South Central—Tennessee, 1 (250-499); Alabama, 1 (100-249); West South Central—Arkansas, 1 (1-19); Oklahoma, 2 (100-249); Texas, 4 (1,090); Mountain—Montana, 1 (20-99); Colorado, 1 (100-249); Nevada, 1 (20-99); Pacific—Washington, 1 (200-249); Oregon, 2 (500-999).

SIC 3341, Secondary Nonferrous Metals: New England—New Hampshire, 1 (1-19); Massachusetts, 16 (227); Rhode Island, 10 (20-99); Connecticut, 8 (20-99); West North Central—Minnesota, 3 (20-99); Iowa, 1 (1-19); Nebraska, 2 (20-99); Kansas, 1 (100-249); South Atlantic—Delaware, 1 (100-249); Virginia, 1 (20-99); North Carolina, 4 (20-99); South Carolina, 1 (1-19); Georgia, 4 (131); Florida, 6 (20-99); East South Central—Kentucky, 3 (1-19); Tennessee, 3 (20-99); Mississippi, 1 (20-99); West South Central—Arkansas, 5 (125); Louisiana, 3 (20-99); Oklahoma, 2 (20-99); Mountain—Colorado, 4 (20-99); Arizona, 4 (20-99); Utah, 2 (20-99); Pacific—Washington, 8 (100-249); Oregon, 2 (20-99).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.



TABLE 3. Detailed Statistics: 1963

Item	Primary copper (SIC 3331)	Primary lead (SIC 3332)	Primary zinc (SIC 3333)	Primary aluminum (SIC 3334)	Primary nonferrous metals, n.e.c. (SIC 3339)	Secondary nonferrous metals (SIC 3341)
Primary product specialization ratio <sup>1</sup> .....	( <sup>3</sup> )	( <sup>3</sup> )	.92	1.00	.83	.94
Coverage ratio <sup>2</sup> .....	( <sup>3</sup> )	( <sup>3</sup> )	.81	.75	.39	.26
Establishments, total.....number..	33	10	18	23	35	459
With 1 to 19 employees.....do....	-	-	-	1	9	280
With 20 to 99 employees.....do....	4	1	2	1	11	136
With 100 employees or more.....do....	29	9	16	21	15	43
Proprietors and working partners.....do....	2	-	-	-	1	174
All employees (average for the year).....do....	14,949	2,578	8,065	18,133	5,064	15,445
Payroll (all employees), total for year.....\$1,000..	96,134	14,997	47,760	134,116	34,807	96,302
Production workers:						
Average for the year.....number..	12,711	2,125	6,575	14,459	3,782	11,336
March.....do....	12,702	1,986	6,549	13,152	3,806	11,212
May.....do....	12,826	1,921	6,565	14,166	3,747	11,343
August.....do....	12,746	2,210	6,469	15,167	3,817	11,319
November.....do....	12,556	2,383	6,719	15,351	3,761	11,449
Man-hours.....1,000..	25,846	4,106	13,245	29,487	8,148	23,779
January-March.....do....	6,488	946	3,293	6,706	2,069	5,847
April-June.....do....	6,564	1,011	3,285	7,233	2,034	6,007
July-September.....do....	6,292	1,031	3,215	7,701	2,029	5,836
October-December.....do....	6,502	1,118	3,452	7,847	2,020	6,089
Wages.....\$1,000..	77,938	11,156	36,238	101,399	24,701	60,510
Cost of materials, etc., total.....do....	969,974	228,906	173,473	571,940	115,519	823,132
Materials, parts, containers, and supplies consumed.....do....	928,334	222,289	151,884	434,328	101,206	676,580
Cost of resales.....do....	556	12	798	7,268	1,655	125,853
Fuels consumed.....do....	20,266	5,777	11,236	29,510	2,306	10,081
Electric energy:						
Purchased:						
Quantity.....million kw.-hrs..	996	97	1,343	28,262	1,661	320
Cost.....\$1,000..	7,697	828	7,453	99,708	7,680	4,167
Generated less sold.....million kw.-hrs..	177	(D)	(D)	10,174	-	-
Contract work.....\$1,000..	13,121	-	2,102	1,126	2,672	6,451
Value of shipments (including resales), total.....do....	1,245,457	265,072	281,537	1,089,977	212,176	1,045,522
Value of resales.....do....	556	5	894	12,884	3,382	139,311
Value added by manufacture, adjusted.....do....	285,510	24,876	98,789	499,576	103,830	228,190
Manufacturers' inventories:						
Beginning of year, total.....do....	160,955	62,210	56,871	123,754	46,379	123,983
Finished products.....do....	60,163	29,922	22,015	40,936	10,620	58,429
Work-in-process.....do....	80,921	26,955	11,745	33,017	22,906	34,217
Materials, supplies, fuel, etc.....do....	19,871	5,333	23,111	49,801	12,853	31,337
End of year, total.....do....	166,368	50,016	46,003	106,479	55,843	143,083
Finished products.....do....	44,362	16,457	12,648	20,777	21,415	66,341
Work-in-process.....do....	106,749	29,130	11,837	34,715	19,284	32,105
Materials, supplies, fuel, etc.....do....	15,257	4,429	21,518	50,987	15,144	44,637
Expenditures for plant and equipment, total.....do....	13,288	987	4,755	63,391	6,652	18,982
New, total.....do....	13,134	964	4,734	62,172	6,435	17,891
New structures and additions to plant.....do....	3,497	115	1,155	29,070	649	5,324
New machinery and equipment.....do....	9,637	849	3,579	33,102	5,786	12,567
Used plant and equipment.....do....	154	23	21	1,219	217	1,091
Selected operating ratios:						
Payroll/Total employment.....	6,431	5,817	5,922	7,396	6,873	6,235
Production workers/Total employment.....	.85	.82	.82	.80	.75	.73
Man-hours/Production workers.....	2,033	1,932	2,014	2,039	2,154	2,098
Production worker wages/Man-hours.....	3.02	2.72	2.74	3.44	3.03	2.54
Cost of materials and payrolls/Total value of shipments....	.86	.92	.79	.65	.71	.88
Cost of materials/Total value of shipments.....	.78	.86	.62	.52	.54	.79
Adjusted value added/Total employment.....	19,099	9,649	12,249	27,551	20,504	14,760
Salaries and wages/Adjusted value added.....	.34	.60	.48	.27	.34	.42

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.e.c. Not elsewhere classified.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

<sup>3</sup>Omitted because of extensive duplication of value of shipments and cost of materials. The duplication varies because products shipped by some establishments are consumed as materials by other establishments in the same industry.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3331.—PRIMARY COPPER											
Establishments.....number..	33	-	-	-	3	1	11	6	8	4	-
All employees:											
Total.....do....	14,949	-	-	-	1,945	(D)	(D)	2,064	5,826	5,114	-
Payroll.....\$1,000..	96,134	-	-	-	13,252	(D)	(D)	12,493	36,188	34,201	-
Value added, adjusted.....do....	285,510	-	-	-	64,790	(D)	(D)	45,317	119,034	56,369	-
Value of shipments.....do....	1,245,457	-	-	-	367,750	(D)	(D)	241,734	401,768	234,205	-
Capital expenditures, new...do....	13,134	-	-	-	1,989	(D)	(D)	1,143	5,111	4,891	-
INDUSTRY 3332.—PRIMARY LEAD											
Establishments.....number..	10	-	-	-	1	-	4	4	1	-	-
All employees:											
Total.....do....	2,578	-	-	-	2,578	-	(D)	(D)	(D)	-	-
Payroll.....\$1,000..	14,997	-	-	-	14,997	-	(D)	(D)	(D)	-	-
Value added, adjusted.....do....	24,876	-	-	-	24,876	-	(D)	(D)	(D)	-	-
Value of shipments.....do....	265,072	-	-	-	265,072	-	(D)	(D)	(D)	-	-
Capital expenditures, new...do....	964	-	-	-	964	-	(D)	(D)	(D)	-	-
INDUSTRY 3333.—PRIMARY ZINC											
Establishments.....number..	18	-	-	-	1	1	4	5	5	2	-
All employees:											
Total.....do....	8,065	-	-	-	669	(D)	(D)	1,944	5,452	(D)	-
Payroll.....\$1,000..	47,760	-	-	-	3,605	(D)	(D)	11,548	32,607	(D)	-
Value added, adjusted.....do....	98,789	-	-	-	4,837	(D)	(D)	19,610	74,342	(D)	-
Value of shipments.....do....	281,537	-	-	-	25,485	(D)	(D)	69,138	186,914	(D)	-
Capital expenditures, new...do....	4,734	-	-	-	981	(D)	(D)	(D)	3,753	(D)	-
INDUSTRY 3334.—PRIMARY ALUMINUM											
Establishments.....number..	23	-	1	-	1	-	-	5	10	6	-
All employees:											
Total.....do....	18,133	-	9,073	-	(D)	-	-	(D)	(D)	9,060	-
Payroll.....\$1,000..	134,116	-	66,312	-	(D)	-	-	(D)	(D)	67,804	-
Value added, adjusted.....do....	499,576	-	249,039	-	(D)	-	-	(D)	(D)	250,537	-
Value of shipments.....do....	1,089,977	-	603,906	-	(D)	-	-	(D)	(D)	486,071	-
Capital expenditures, new...do....	62,172	-	54,095	-	(D)	-	-	(D)	(D)	8,076	-
INDUSTRY 3339.—PRIMARY NONFERROUS METALS, N.E.C.											
Establishments.....number..	35	5	2	2	5	6	8	4	3	-	-
All employees:											
Total.....do....	5,064	222	(D)	(D)	(D)	411	1,123	1,309	1,999	-	-
Payroll.....\$1,000..	34,807	1,499	(D)	(D)	(D)	2,821	6,965	9,043	14,479	-	-
Value added, adjusted.....do....	103,830	15,939	(D)	(D)	(D)	5,907	15,329	19,826	46,829	-	-
Value of shipments.....do....	212,176	53,862	(D)	(D)	(D)	12,153	32,036	39,601	74,524	-	-
Capital expenditures, new...do....	6,435	600	(D)	(D)	(D)	881	1,201	881	2,872	-	-
INDUSTRY 3341.—SECONDARY NONFERROUS METALS											
Establishments.....number..	459	149	72	59	93	43	38	4	1	-	-
All employees:											
Total.....do....	15,445	310	494	804	3,004	2,960	5,913	1,960	(D)	-	-
Payroll.....\$1,000..	96,302	1,685	2,526	4,645	18,512	18,280	37,721	12,933	(D)	-	-
Value added, adjusted.....do....	228,190	5,205	8,442	13,067	63,335	36,768	79,536	21,837	(D)	-	-
Value of shipments.....do....	1,045,522	16,791	20,228	45,816	210,730	179,924	450,922	121,111	(D)	-	-
Capital expenditures, new...do....	17,891	778	363	556	5,054	1,500	7,096	2,544	(D)	-	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. n.e.c. Not elsewhere classified.



**TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B.C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3331	Primary copper.....1963..	1,245,457	1,048,923	103,474	93,060	( <sup>1</sup> )	1,297,102	1,048,923	248,179	( <sup>1</sup> )
	1958..	861,087	714,995	72,996	73,096	( <sup>1</sup> )	877,421	(NA)	(NA)	(NA)
3332	Primary lead.....1963..	265,072	(D)	(D)	7,036	( <sup>1</sup> )	(D)	(D)	(D)	( <sup>1</sup> )
	1958..	316,934	(D)	(D)	(D)	( <sup>1</sup> )	(D)	(D)	(D)	( <sup>1</sup> )
3333	Primary zinc.....1963..	281,537	250,997	20,706	9,834	92	308,538	250,997	57,541	281
	1958..	208,993	176,632	19,441	12,920	90	232,513	176,632	55,881	76
3334	Primary aluminum.....1963..	1,089,977	1,069,606	-	20,371	100	1,420,182	1,069,606	350,576	375
	1958..	808,822	800,011	-	8,811	100	1,057,801	800,011	257,790	76
3339	Primary nonferrous metals, n.e.c...1963..	212,176	170,039	34,841	7,296	83	439,385	170,039	269,346	439
	1958..	96,565	87,131	7,536	1,898	92	362,694	87,131	275,563	24
3341	Secondary nonferrous metals.....1963..	1,045,522	813,932	54,717	176,873	94	3,102,519	813,932	2,288,587	26
	1958..	724,013	563,138	45,562	115,313	93	1,859,159	563,138	1,296,021	30

(NOTE: See Introduction for an explanation of terms used.)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>Specialization and coverage ratios have not been calculated for industries 3331, Primary Copper, and 3332, Primary Lead, because the shipments of primary products for these industries contain extensive duplication.

<sup>2</sup>Included in this industry is refined zinc which is also primary to industry 3341, Secondary Nonferrous Metals. A coverage ratio computed on the basis of including both industries to which refined zinc is primary would total 96 percent; 81 percent by industry 3333 and 15 percent by industry 3341. The remainder was shipped by establishments in other industries.

<sup>3</sup>Included in this industry are aluminum-base alloys which are also primary to industry 3341, Secondary Nonferrous Metals, and industry 3352, Aluminum Rolling and Drawing. A coverage ratio computed on the basis of including all three industries to which aluminum-base alloys are primary would total 96 percent; 75 percent by industry 3334, 17 percent by industry 3341, and 4 percent by industry 3352. The remainder was shipped by establishments in other industries.

<sup>4</sup>Included in this industry are refined nonferrous alloys, n.e.c., which are also primary to industry 3341, Secondary Nonferrous Metals. A coverage ratio computed on the basis of including both industries to which refined nonferrous alloys, n.e.c., are primary would total 59 percent; 39 percent by industry 3339, and 20 percent by industry 3341. The remaining 41 percent was shipped by establishments classified in other industries.

<sup>5</sup>Included in this industry are refined copper, lead, zinc, aluminum, precious metals, and other nonferrous metals. Each of these product classes is also primary to the comparable primary smelting and refining industry in Group 333. A coverage ratio computed on the basis of including both industries to which the classes are primary would total 89 percent; 26 percent by industry 3341, and 63 percent by primary nonferrous smelters and refiners. The remaining 11 percent was shipped by establishments in other industries.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)

miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Primary copper (SIC 3331)	Secondary nonferrous metals (SIC 3341)	Other industries
PRIMARY COPPER INDUSTRY					
	Total shipments and receipts of the industry.....	(X)	<sup>1</sup> 1,245,457	(X)	(X)
	Primary products.....	<sup>1</sup> 1,297,102	<sup>1</sup> 1,048,923	(D)	(D)
33311	Copper smelter products.....	628,508	627,482	(D)	(D)
33312	Refined primary copper.....	<sup>2</sup> 668,594	421,441	222,016	25,137
	Secondary products.....	(X)	103,474	(X)	(X)
28199	Reagent and high purity grades of inorganic chemicals and other inorganic chemicals, n.e.c.	(X)	5,763	(X)	(X)
33395	Precious metals (primary smelting).....	(X)	86,092	(X)	(X)
33397	Other primary nonferrous metals, including magnesium, smelted or refined.....	(X)	6,964	(X)	(X)
	All other products.....	(X)	<sup>3</sup> 4,655	(X)	(X)
	Miscellaneous receipts.....	(X)	93,060	(X)	(X)
	Smelting and refining materials owned by others on a toll basis.....	(X)	89,191	(X)	(X)
	All other receipts.....	(X)	3,869	(X)	
PRIMARY LEAD INDUSTRY					
	Total shipments and receipts of the industry.....	(X)	<sup>1</sup> 265,072	(X)	(X)
	Primary products.....	(D)	(D)	(D)	(D)
33321	Lead smelter products.....	(D)	(D)	(D)	(D)
33323	Refined lead.....	<sup>4</sup> 276,388	74,457	191,445	<sup>5</sup> 10,486
	Secondary products.....	(X)	(D)	(X)	(X)
	Miscellaneous receipts.....	(X)	<sup>6</sup> 7,036	(X)	(X)
PRIMARY ZINC INDUSTRY					
	Total shipments and receipts of the industry.....	(X)	281,537	(X)	(X)
	Primary products.....	<sup>7</sup> 308,538	250,997	45,122	12,419
33331	Zinc residues and other zinc smelter products.....	34,798	20,712	1,877	12,209
33334	Refined primary zinc products.....	<sup>7</sup> 273,740	230,285	43,245	210
	Secondary products.....	(X)	20,706	(X)	(X)
28193	Sulfuric acid.....	(X)	5,655	(X)	(X)
33397	Other primary nonferrous metals, including magnesium, smelted or refined.....	(X)	9,745	(X)	(X)
	All other products.....	(X)	<sup>8</sup> 5,306	(X)	(X)
	Miscellaneous receipts.....	(X)	<sup>6</sup> 9,834	(X)	(X)
PRIMARY ALUMINUM INDUSTRY					
	Total shipments and receipts of the industry.....	(X)	1,089,977	(X)	(X)
	Primary products.....	<sup>9</sup> 1,420,182	1,069,606	244,539	106,037
33347	Aluminum ingot, produced in primary aluminum reduction plants.....	<sup>10</sup> 1,234,704	946,808	230,687	<sup>11</sup> 57,209
33348	Aluminum extrusion billet, produced in primary aluminum reduction plants.....	<sup>12</sup> 185,478	122,798	13,852	<sup>13</sup> 48,828
	Miscellaneous receipts.....	(X)	<sup>14</sup> 20,371	(X)	(X)
PRIMARY NONFERROUS METALS, N.E.C., INDUSTRY					
	Total shipments and receipts of the industry.....	(X)	212,176	(X)	(X)
	Primary products.....	<sup>15</sup> 16,439,385	170,039	88,457	180,889
33395	Precious metals (primary smelting).....	<sup>15</sup> 246,426	170,039	58,978	<sup>17</sup> 180,889
33397	Other primary nonferrous metals, including magnesium, smelted or refined.....	<sup>16</sup> 192,959		29,479	
	Secondary products.....	(X)	34,841	(X)	(X)
28199	Reagent and high purity grades of inorganic chemicals and other inorganic chemicals, n.e.c.	(X)	6,042	(X)	(X)
33560	Rolled, drawn, and extruded nonferrous metal mill products (except copper and aluminum)....	(X)	7,591	(X)	(X)
	All other products.....	(X)	<sup>18</sup> 21,208	(X)	(X)
	Miscellaneous receipts.....	(X)	<sup>14</sup> 7,296	(X)	(X)

See footnotes at end of table.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Secondary nonferrous metals (SIC 3341)	Other industries
SECONDARY NONFERROUS METALS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	1,045,522	(X)
	Primary products.....	3,102,519	813,932	2,288,587
33412	Secondary copper (ingot, shot, etc.).....	<sup>19</sup> 668,594	222,016	<sup>20</sup> 446,578
33413	Secondary lead (ingot, shot, etc.).....	<sup>21</sup> 276,388	191,445	<sup>22</sup> 184,943
33414	Secondary zinc (ingot, shot, etc.).....	<sup>23</sup> 273,740	43,245	<sup>24</sup> 230,495
33415	Precious metals produced by secondary refineries (pig, ingot, shot, etc.).....	<sup>25</sup> 246,426	58,978	<sup>26</sup> 187,448
33416	Other secondary nonferrous metals (pig, ingot, shot, etc.).....	<sup>27</sup> 192,959	29,479	<sup>28</sup> 163,480
33417	Aluminum ingot produced by secondary smelters.....	<sup>28</sup> 1,234,704	230,687	<sup>29</sup> 1,004,017
33418	Aluminum extrusion billet, produced by secondary smelters.....	<sup>30</sup> 185,478	13,852	<sup>29</sup> 171,626
33410	Secondary smelting, refining, and alloying of nonferrous metals and alloys.....	24,230	24,230	-
	Secondary products.....	(X)	54,717	(X)
28199	Reagent and high purity grades of inorganic chemicals and other inorganic chemicals, n.e.c.	(X)	8,827	(X)
33560	Nonferrous rolling and drawing, n.e.c.....	(X)	16,507	(X)
	All other products.....	(X)	29,383	(X)
	Miscellaneous receipts.....	(X)	176,873	(X)
	Value of resales.....	(X)	139,311	(X)
	Scrap and salable refuse.....	(X)	16,882	(X)
	Receipts for smelting and refining materials owned by others on a toll basis.....	(X)	13,396	(X)
	All other receipts.....	(X)	7,284	(X)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>Value of shipments for this industry, or group of products, includes extensive duplication arising from shipments between establishments in the same industry classification. For further explanation see appendix A, "Value of Shipments."

<sup>2</sup>Includes total for product class 33412, Secondary copper (ingot, shot, etc.), which is primary to industry 3341.

<sup>3</sup>Includes product class 28193, Sulfuric acid, which totals \$2 million or more but is withheld to avoid disclosing individual company figures.

<sup>4</sup>Includes total for product class 33413, Secondary lead (ingot, shot, etc.), which is primary to industry 3341.

<sup>5</sup>Represents mainly industry 3356, Rolling and Drawing, N.E.C.

<sup>6</sup>Represents mainly receipts received for smelting or refining metal on a toll basis.

<sup>7</sup>Includes total for product class 33414, Secondary zinc (ingot, shot, etc.), which is primary to industry 3341.

<sup>8</sup>Includes product class 28162, Other white opaque pigments, which totals \$2 million or more, but is withheld to avoid disclosing individual company figures.

<sup>9</sup>Includes total for product class 33417, Aluminum ingot produced by secondary smelters, which is primary to industry 3341; and product class 33527, Aluminum ingot, produced in aluminum rolling mills, which is primary to industry 3352.

<sup>10</sup>Includes total for product class 33417, Aluminum ingot produced by secondary smelters which is primary to industry 3341; and product class 33527, Aluminum ingot produced in aluminum rolling mills, which is primary to industry 3352.

<sup>11</sup>Includes \$49,024 thousand shipped by industry 3352, Aluminum Rolling and Drawing.

<sup>12</sup>Includes total for product class 33418, Aluminum extrusion billet, produced by secondary refiners, which is primary to industry 3341; and product class 33528, Aluminum extrusion billet, produced in aluminum rolling mills, which is primary to industry 3352.

<sup>13</sup>Includes \$48,745 thousand shipped by industry 3352, Aluminum Rolling and Drawing.

<sup>14</sup>Represents mainly resales.

<sup>15</sup>Includes total for product class 33415, Precious metals, produced by secondary refiners (pig, ingot, shot, etc.) primary to industry 3341.

<sup>16</sup>Includes total for product class 33416, Other secondary nonferrous metals (pig, ingot, shot, etc.), which is primary to industry 3341.

<sup>17</sup>Includes \$2.6 million shipped by industry 2819, Inorganic Chemicals, N.E.C.; \$2.8 million shipped by industry 3356, Rolling and Drawing, N.E.C.; \$93 million shipped by industry 3331, Primary Copper; and \$9.7 million shipped by industry 3333, Primary Zinc. In addition, industry 3332, Primary Lead, had shipments which totaled \$2 million or more, but is withheld to avoid disclosing figures for individual companies.

<sup>18</sup>Includes the following product classes which total \$2 million or more, but are withheld to avoid disclosing individual company figures: 33412, Secondary copper (ingot, shot, etc.); and 33417, Aluminum ingot produced by secondary smelters.

<sup>19</sup>Includes total for product class 33312, Refined primary copper, made in Primary Copper Industry, which is primary to industry 3331.

<sup>20</sup>See also industry 3331 above.

<sup>21</sup>Includes total for product class 33334, Refined primary lead, made in Primary Lead Industry, which is primary to industry 3332.

<sup>22</sup>See also industry 3332 above.

<sup>23</sup>Includes total for product class 33334, Refined primary zinc products, made in Primary Zinc Industry, which is primary to industry 3333.

<sup>24</sup>See also industry 3333 above.

<sup>25</sup>Includes total for product class 33395, Precious metals (primary smelting), made in Primary Nonferrous Metals, N.E.C., Industry, which is primary to industry 3339.

<sup>26</sup>See also industry 3339 above.

<sup>27</sup>Includes total for product class 33397, Other primary nonferrous metals, including magnesium, smelted or refined, made in Primary Nonferrous Metals, N.E.C., Industry, which is primary to industry 3339.

<sup>28</sup>Includes total for product class 33347, Aluminum ingot, produced in primary aluminum reduction plants, which is primary to industry 3334, and product class 33527, Aluminum ingot, produced in aluminum rolling mills, which is primary to industry 3352.

<sup>29</sup>See also industry 3334 above.

<sup>30</sup>Includes total for product class 33348, Aluminum extrusion billet, produced in primary aluminum reduction plants, which is primary to industry 3334, and product class 33528, Aluminum extrusion billet, produced in aluminum rolling mills which is primary to industry 3352.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Total production <sup>2</sup> (gross weight)	Shipments including interplant transfers <sup>1</sup>						Shipments of products made from materials owned by others <sup>3</sup> (gross weight)	Produced and consumed in the same plant in manufacture of other products (gross weight)
			Total		Shipments to all other companies		Transfers to other plants of the same company			
			Quantity (gross weight)	Value (\$1,000)	Quantity (gross weight)	Value (\$1,000)	Quantity (gross weight)	Value (\$1,000)		
	1963	(short tons)	(short tons)		(short tons)		(short tons)		(short tons)	
3331- --	PRIMARY COPPER, TOTAL.....	(X)	(X)	1,297,102	(X)	(X)	(X)	(X)	(X)	(X)
33311 --	Copper smelter products.....	(X)	(X)	628,508	(D)	(D)	(D)	(D)	(X)	113,363
33311 11	Blister or anode copper.....	1,497,106	1,068,929	614,640	439,875	259,859	629,054	354,781	360,106	} 113,363
33311 51	Matte, speiss, flue dust, residues, etc.....	92,812	33,655	13,868	(D)	(D)	(D)	(D)	4,562	
33312 --	Refined copper.....	(X)	(X)	668,594	(D)	(D)	(D)	(D)	(X)	(D)
33412 --										
33312 --	Made by primary copper refiners (industry 3331).....	1,796,830	640,657	421,441	(D)	(D)	(D)	(D)	(X)	(X)
33412 --	Made by secondary refiners (industry 3341) and other industries.....	(X)	(X)	247,153	(D)	(D)	(D)	(D)	(X)	(X)
33312 11	Copper unalloyed.....	1,858,784	725,392	470,328	725,392	470,328	-	-	1,180,224	(D)
33412 11										
33312 15	Copper-base alloys.....	290,447	305,325	196,778	(D)	(D)	(D)	(D)	3,561	(D)
33412 31										
33312 00	Refined primary copper, n.s.k...	(X)	(X)	1,488	(X)	1,488	(X)	-	(X)	(X)
3332- --	PRIMARY LEAD, TOTAL.....	(NA)	(NA)	(D)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
33321 --	Lead smelter products.....	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	97,464
33321 11	Base bullion.....	279,728	(D)	(D)	(D)	(D)	(D)	(D)	(D)	} 97,464
33321 51	Matte speiss, etc.....	132,374	(D)	(D)	(D)	(D)	(D)	(D)	(D)	
33323 --	Refined lead.....	(X)	(X)	276,388	(X)	256,683	(X)	19,705	(D)	(D)
33413 --										
33323 --	Made by primary lead refiners (industry 3332).....	(X)	(X)	74,457	(X)	(D)	(X)	(D)	(D)	(D)
33413 --	Made by secondary refiners (industry 3341).....	(X)	(X)	191,445	(X)	(D)	(X)	(D)	(D)	(D)
	All other industries.....	(X)	(X)	10,486	(X)	(D)	(X)	(D)	(D)	(D)
33323 11	Refined unalloyed lead.....	629,806	443,713	98,461	421,737	93,685	21,976	4,776	(D)	(D)
33413 11										
33323 11	Made in industry 3332.....	492,674	312,097	68,589	} 421,737	93,685	21,976	4,776	(D)	(D)
33413 11	All other industries.....	137,132	131,616	29,872						
	Made in industry 3341.....									
	Lead- and tin-base alloys <sup>4</sup> .....	519,513	478,981	172,842	(D)	(D)	(D)	(D)	(D)	(D)
	Made in industry 3332.....	519,513	478,981	172,842	(D)	(D)	(D)	(D)	(D)	(D)
	Made in industry 3341.....									
	All other industries.....									
33323 31	Antimonial lead.....	329,344	306,686	72,720	265,217	62,657	41,469	10,063	18,508	(D)
33413 21										
33323 33	Babbitt metal.....	14,389	13,423	9,171	(D)	(D)	(D)	(D)	(D)	(D)
33413 33										
33323 51	Solder.....	102,265	100,907	69,783	(D)	(D)	(D)	(D)	1,141	(D)
33413 51										
33323 71	Type metal.....	39,363	34,522	12,479	(D)	(D)	(D)	(D)	(D)	(D)
33413 71										
33323 98	Other lead and tin-base alloys	34,152	23,443	8,689	(D)	(D)	(D)	(D)	(D)	(D)
33413 98										
33323 00	Refined lead, n.s.k.....	(X)	(X)	55,085	(X)	5,085	(X)	-	(X)	(X)
33413 00										

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total production <sup>2</sup> (gross weight)	Shipments including interplant transfers <sup>1</sup>						Shipments of products made from materials owned by others <sup>3</sup> (gross weight)	Produced and consumed in the same plant in manufacture of other products (gross weight)	
			Total		Shipments to all other companies		Transfers to other plants of the same company				
			Quantity (gross weight)	Value (\$1,000)	Quantity (gross weight)	Value (\$1,000)	Quantity (gross weight)	Value (\$1,000)			
	1963—Continued	(Short tons)	(Short tons)		(Short tons)		(Short tons)		(Short tons)	(Short tons)	
3333--	PRIMARY ZINC, TOTAL.....	1,741,183	1,621,907	308,538	1,437,333	289,781	184,574	18,757	83,185	(D)	
33331 11	Zinc residues and other zinc smelter products.....	478,209	492,220	34,798	(D)	(D)	(D)	(D)	(D)	(D)	
33334 --	Refined zinc.....	1,262,974	1,129,687	273,740	1,092,941	265,166	36,746	8,574	75,400	96,467	
33414 --											
33334 --		Made by primary zinc refiners (industry 3333).....	1,079,297	975,017	230,285	1,092,941	265,166	36,746	8,574	75,400	96,467
33414 --		Made by secondary refiners (industry 3341).....	183,677	154,670	43,455						
	All other industries.....										
	Unalloyed zinc:										
33334 13	Zinc slab, including remelt zinc	971,688	864,571	202,004	836,588	195,432	27,983	6,572	46,465	(D)	
33414 01											
33414 01	Made in industry 3341.....	971,688	23,366	5,624	836,588	195,432	27,983	6,572	46,465	(D)	
33334 13	Made in industry 3333.....		841,205	196,380							
	All other industries.....										
33334 51	Zinc dust.....	43,066	44,481	12,899	(D)	(D)	(D)	(D)	(D)	(D)	
33414 05					(D)	(D)	(D)	(D)	(D)	(D)	
33414 05		Made in industry 3341.....	16,393	16,278	5,190	(D)	(D)	(D)	(D)	(D)	
33334 51	Made in industry 3333.....	26,673	28,203	7,709	(D)	(D)	(D)	(D)	(D)	(D)	
33334 61	Zinc-base alloys.....	248,220	220,635	58,837	(D)	(D)	(D)	(D)	(D)	(D)	
33414 11					(D)	(D)	(D)	(D)	(D)	(D)	
33334 61	Made in industry 3333.....	106,145	106,448	26,387	(D)	(D)	(D)	(D)	(D)	(D)	
33414 11	Made in industry 3341.....	142,075	114,187	32,450	(D)	(D)	(D)	(D)	(D)	(D)	
	All other industries.....				(D)	(D)	(D)	(D)	(D)	(D)	
3334--	REFINED ALUMINUM, TOTAL.....	3,740,087	3,168,977	1,420,182	1,833,981	807,409	1,334,996	612,773	67,940	738,728	
33347 --	Aluminum ingot.....	3,135,646	2,754,944	1,234,704	1,543,225	680,625	1,211,719	554,079	24,260	515,259	
33417 --											
33527 --											
33347 11	Made in primary aluminum industry (industry 3334).....	2,008,627	2,118,607	946,808	965,303	426,741	1,153,304	520,067	24,260	515,259	
33527 11	Made in aluminum rolling mills (industry 3352) <sup>6</sup> .....	561,950	86,242	49,024	577,922	253,884	58,415	34,012			
33417 11	Made in secondary nonferrous metals industry (industry 3341).....	565,069	540,522	230,687							
	All other industries.....		9,573	8,185							
33348 --	Aluminum extrusion billet.....	604,441	414,033	185,478	290,756	126,784	123,277	58,694	43,680	223,469	
33528 --											
33418 --											
33348 11	Made in primary aluminum industry (industry 3334)....	254,500	272,092	122,798	193,561	86,244	78,531	36,554	-	-	
33528 11	Made in aluminum rolling mills (industry 3352) <sup>6</sup> .....	288,722	108,965	48,745	64,219	26,605	44,746	22,140	16,249	223,469	
33418 11	Made in secondary nonferrous metals industry (industry 3341).....	61,219	32,976	13,935	32,976	13,935	-	-	27,431	-	
	All other industries.....										
		(Troy ounces)	(Troy ounces)		(Troy ounces)		(Troy ounces)		(Troy ounces)	(Troy ounces)	
3339--	PRIMARY NONFERROUS METALS, N.E.C., TOTAL.....	(NA)	(NA)	439,385	(D)	(D)	(D)	(D)	(X)	(X)	
33395 --	Precious metals.....	(NA)	(NA)	246,426	(D)	(D)	(D)	(D)	(X)	(X)	
33415 --											
		Unalloyed:									
33395 11	Gold.....	2,505,513	1,493,771	53,592	(D)	(D)	(D)	(D)	957,941	(D)	
33415 11											
33395 51	Silver.....	(NA)	(NA)	107,405	(D)	(D)	(D)	(D)	(NA)	(D)	
33415 31											

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total production <sup>2</sup> (gross weight)	Shipments including interplant transfers <sup>1</sup>						Shipments of products made from materials owned by others <sup>3</sup> (gross weight)	Produced and consumed in the same plant in manufacture of other products (gross weight)
			Total		Shipments to all other companies		Transfers to other plants of the same company			
			Quantity (gross weight)	Value (\$1,000)	Quantity (gross weight)	Value (\$1,000)	Quantity (gross weight)	Value (\$1,000)		
	1963—Continued	(Troy ounces)	(Troy ounces)		(Troy ounces)		(Troy ounces)		(Troy ounces)	(Troy ounces)
3339- --	PRIMARY NONFERROUS METALS, N.E.C.—Continued									
33395 --	} Precious metals—Continued									
33415 --										
	Unalloyed:—Continued									
33395 31	} Platinum, including platinum-group metals..... Made in industry 3341..... Made in primary nonferrous metals, n.e.c. industry (industry 3339) and other industries.....	(NA)	(NA)	25,049	(D)	(D)	(D)	(D)	(NA)	(D)
33415 51		(NA)	(NA)	22,717	(D)	(D)	(D)	(D)	(NA)	-
			(NA)	(NA)	2,332	(D)	(D)	(D)	(D)	(NA)
	Alloys:									
33395 61	} Silver-base..... Gold-base..... Other precious metal, including platinum-group.....	(NA)	(NA)	60,380	(NA)	60,380	-	-	(NA)	(D)
33415 71										
33395 65										
33415 81										
33395 69										
33415 89										
33415 00	Precious metals, n.s.k.....									
		(Short tons)	(Short tons)		(Short tons)		(Short tons)		(Short tons)	(Short tons)
33397 --	} Other nonferrous metals.....	(NA)	(NA)	192,959	(D)	(D)	(D)	(D)	(X)	(X)
33416 --										
	Unalloyed:									
33397 21	} Cadmium.....	4,054	4,308	17,926	(D)	(D)	(D)	(D)	(D)	(D)
33416 51										
33397 11	} Magnesium.....	80,744	56,794	39,470	(D)	(D)	(D)	(D)	-	(D)
33416 61										
33397 51	} Nickel.....	1,518	1,087	1,740	1,087	1,740	-	-	-	-
33416 69										
33397 61	} Tin.....	(NA)	(NA)	7,881	(D)	(D)	(D)	(D)	(D)	(D)
33416 71										
33397 71	} Titanium sponge.....									
33416 81										
33397 79	} Other unalloyed nonferrous metals, (including metal bearing furnace residues and other metal products which have to be further refined before sale to customers).....	(NA)	(NA)	84,968	(NA)	65,429	(NA)	19,539	(NA)	(NA)
33416 89										
	Alloyed:									
33397 92	} Magnesium-base alloys.....	31,682	26,723	17,286	(D)	(D)	(D)	(D)	-	(D)
33416 21										
33397 93	} Nickel-base alloys.....	3,782	3,685	10,651	3,685	10,651	-	-	(D)	-
33416 31										
33397 98	} Other nonferrous metal alloys..	(NA)	(NA)	7,723	(D)	(D)	(D)	(D)	-	-
33416 43										
33397 00	} Other nonferrous metals, n.s.k...	(X)	(X)	5,314	(NA)	5,314	-	-	(X)	(X)
33416 00										
3341- --	SECONDARY SMELTING, REFINING, AND ALLOYING OF NONFERROUS METALS, TOTAL.....	(X)	(X)	3,102,519	(D)	(D)	(D)	(D)	(X)	(X)
33417 --	} Aluminum ingot.....	3,135,646	2,754,944	71,234,704	1,543,225	680,625	1,211,719	554,079	24,260	515,259
33347 --										
33527 --										
33418 --	} Aluminum extrusion billet.....	604,441	414,033	7185,478	290,756	126,784	123,277	58,694	43,680	223,469
33348 --										
33528 --										

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total production <sup>2</sup> (gross weight)	Shipments including interplant transfers <sup>1</sup>						Shipments of products made from materials owned by others <sup>3</sup> (gross weight)	Produced and consumed in the same plant in manufacture of other products (gross weight)
			Total		Shipments to all other companies		Transfers to other plants of the same company			
			Quantity (gross weight)	Value (\$1,000)	Quantity (gross weight)	Value (\$1,000)	Quantity (gross weight)	Value (\$1,000)		
	1963—Continued	(Short tons)	(Short tons)		(Short tons)		(Short tons)		(Short tons)	(Short tons)
3341- --	SECONDARY SMELTING, REFINING, AND ALLOYING OF NONFERROUS METALS—Continued									
33412 -- 33312 --	} Refined copper.....	(X)	(X)	<sup>8</sup> 668,594	(D)	(D)	(D)	(D)	(X)	(D)
33413 -- 33323 --										
33414 -- 33334 --	} Refined zinc.....	1,262,974	1,129,687	<sup>10</sup> 273,740	1,092,941	265,166	36,746	8,574	75,400	96,467
33415 -- 33395 --										
33416 -- 33397 --	} Other nonferrous metals, smelted and refined.....	(NA)	(NA)	<sup>12</sup> 192,959	(D)	(D)	(D)	(D)	(X)	(X)
33410 00										
	1958									
3331- --	PRIMARY COPPER, TCTAL.....	(X)	(X)	877,421	(X)	565,480	(X)	311,941	(X)	(X)
33311 --	Copper smelter products.....	(X)	(X)	397,681	(X)	96,910	(X)	300,771	353,443	62,915
33311 11 33311 51	Blister or anode copper..... Matte, speiss, flue dust, residues, etc.....	1,107,345	723,278	390,539	182,638	95,399	540,640	295,140	353,443	} 62,915
		55,459	50,159	7,142	11,541	1,511	38,618	5,631	-	
33312 -- 33412 --	} Refined copper.....	(X)	(X)	479,740	(X)	468,570	(X)	11,170	(X)	(X)
33312 --										
33412 --	{ Made by secondary refiners (industry 3341)..... All other industries.....	(X)	(X)	151,929	(X)	(D)	(X)	(D)	(X)	(X)
33312 11 33412 11	} Refined unalloyed copper.....	1,595,257	649,257	344,188	(D)	(D)	(D)	(D)	1,032,241	4,960
33412 11										
33312 11	Made in industry 3331.....	1,555,109	589,929	312,940	589,929	312,940	-	-	1,032,241	} 4,960
33312 15 33412 31	} Copper-base alloys.....	318,437	254,543	135,552	(D)	(D)	(D)	(D)	3,433	
33312 15 33412 31										{ Made in industry 3331..... Made in industry 3341..... All other industries.....
3332- --	PRIMARY LEAD, TOTAL.....	(X)	(X)	(D)	(X)	(D)	(X)	(D)	(X)	
33321 --	Lead smelter products.....	(X)	(X)	(D)	(X)	(D)	(X)	(D)	(X)	(X)
33321 11 33321 51	Base bullion..... Matte, speiss, etc.....	479,846	} (D)	(D)	(D)	(D)	(D)	(D)	(D)	209,754
		118,562								
33323 -- 33413 --	} Refined lead.....	(X)	(X)	280,937	(X)	(D)	(X)	(D)	(X)	(X)
33323 --										
33413 --	{ Made in industry 3341..... All other industries.....	(X)	(X)	137,446	(X)	(D)	(X)	(D)	(X)	(X)
33323 11 33413 11	} Refined unalloyed lead.....	658,569	521,108	120,116	509,074	117,286	12,034	2,830	104,431	(D)

See footnotes at end of table.

TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total production <sup>2</sup> (gross weight)	Shipments including interplant transfers <sup>1</sup>						Shipments of products made from materials owned by others <sup>3</sup> (gross weight)	Produced and consumed in the same plant in manufacture of other products (gross weight)
			Total		Shipments to all other companies		Transfers to other plants of the same company			
			Quantity (gross weight)	Value (\$1,000)	Quantity (gross weight)	Value (\$1,000)	Quantity (gross weight)	Value (\$1,000)		
	1958—Continued	(Short tons)	(Short tons)		(Short tons)		(Short tons)		(Short tons)	(Short tons)
3331- --	PRIMARY LEAD—Continued									
33323 --	Refined lead—Continued									
33413 --										
33323 11	Refined unalloyed lead—Continued									
33413 11										
33413 11	Made in industry 3341.....	134,252	118,238	28,536	(D)	(D)	(D)	(D)	(D)	(D)
33323 11	Made in industry 3332.....	524,317	402,870	91,580	(D)	(D)	(D)	(D)	(D)	(D)
	Lead-base and tin-base alloys <sup>4</sup> ...	413,510	410,709	154,805	(D)	(D)	(D)	(D)	16,123	995
	Made in industry 3332.....	48,854	50,026	13,208	50,026	13,208	-	-	16,123	995
	Made in industry 3341.....	293,395	290,195	104,458	(D)	(D)	(D)	(D)		
	All other industries.....	71,261	70,488	37,139	(D)	(D)	(D)	(D)		
33323 31	Antimonial lead.....	244,259	242,594	61,489	(D)	(D)	(D)	(D)	8,412	(D)
33413 21		Babbitt metal:								
33323 32	Lead-base.....	23,833	22,144	9,837	(D)	(D)	(D)	(D)	(D)	242
33413 31										
33323 35	Tin-base.....	2,990	2,364	3,959	(D)	(D)	(D)	(D)	(D)	
33413 35										
33323 51	Solder.....	70,047	70,483	51,518	(D)	(D)	(D)	(D)	2,357	502
33413 51										
33323 71	Type metal.....	42,871	39,802	14,682	(D)	(D)	(D)	(D)	(D)	(D)
33413 71										
33323 98	Other lead and tin-base alloys.	29,510	33,322	13,320	(D)	(D)	(D)	(D)	3,489	(D)
33413 98										
33413 00	Refined lead, n.s.k.....	(X)	(X)	13,016	(X)	6,016	(X)	-	(X)	(X)
3333- --	PRIMARY ZINC, TOTAL.....	(X)	(X)	232,513	(X)	214,899	(X)	17,614	(X)	(X)
33331 11	Zinc residues and other zinc smelter products.....	438,014	425,564	25,822	210,939	13,448	214,625	12,374	8,620	(D)
33334 --	Refined zinc.....	(X)	(X)	206,691	(X)	201,451	(X)	5,240	(X)	(X)
33414 --										
33334 pt	Made by primary zinc refiners (industry 3333).....	(X)	(X)	158,137	}	(X)	201,451	(X)	5,240	(X)
33414 pt	Made in industry 3341.....	(X)	(X)	39,206						
33334 pt	All other industries.....	(X)	(X)	9,348						
33414 pt										
33334 13	Zinc slab, including remelt zinc.	863,317	776,667	158,713	752,670	153,639	23,997	5,074	76,334	43,180
33414 01										
33414 01	Made in industry 3341.....	20,323	20,181	4,549	20,181	4,549	-	-	76,334	43,180
33334 13	Made in industry 3333.....	842,994	756,486	154,164	732,489	149,090	23,997	5,074		
	All other industries.....									
33334 51	Zinc dust.....	25,792	25,518	7,070	25,518	7,070	-	-	(D)	(D)
33414 05										
33414 05	Made in industry 3341.....	25,792	25,518	7,070	25,518	7,070	-	-	(D)	(D)
33334 51	Made in industry 3333.....									
	All other industries.....									
33334 61	Zinc-base alloys.....	148,440	130,347	40,908	129,715	40,742	632	166	11,506	-
33414 11										
33334 61	Made in industry 3333.....	148,440	130,347	40,908	129,715	40,742	632	166	11,506	-
33414 11	Made in industry 3341.....									
	All other industries.....									

See footnotes at end of table.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total production <sup>2</sup> (gross weight)	Shipments including interplant transfers <sup>1</sup>						Shipments of products made from materials owned by others <sup>3</sup> (gross weight)	Produced and consumed in the same plant in manufacture of other products (gross weight)
			Total		Shipments to all other companies		Transfers to other plants of the same company			
			Quantity (gross weight)	Value (\$1,000)	Quantity (gross weight)	Value (\$1,000)	Quantity (gross weight)	Value (\$1,000)		
	1958—Continued	(Short tons)	(Short tons)		(Short tons)		(Short tons)		(Short tons)	
3334- --	PRIMARY ALUMINUM, TOTAL.....	2,091,821	2,146,805	1,057,801	1,141,380	551,404	1,005,425	506,397	(X)	(X)
33341 11 33520 11 33411 11	Aluminum-base alloys.....	14988,961	1,017,043	507,695	570,880	277,198	446,163	230,497	23,175	145,105
33341 11	Made in primary aluminum refineries (industry 3334).....	481,424	508,189	260,838	156,525	82,463	351,664	178,375	23,175	145,105
33520 11	Made in aluminum rolling mills (industry 3352) <sup>6</sup> .....	14185,921	186,791	101,739	101,615	54,343	85,176	47,396		
33411 11	Made in industry 3341.....	312,280	311,359	140,471	302,036	135,745	9,323	4,726		
	All other industries.....	9,336	10,704	4,647	10,704	4,647	-	-		
33342 11	Refined unalloyed aluminum.....	1,102,860	1,129,762	550,106	570,500	274,206	559,262	275,900	(D)	(D)
	Made in industry 3334.....	1,077,861	1,105,216	539,173	545,954	263,273	559,262	275,900	(D)	(D)
	Made in industry 3341.....	24,999	24,546	10,933	24,546	10,933	-	-	(D)	(D)
		(Troy ounces)	(Troy ounces)		(Troy ounces)		(Troy ounces)		(Troy ounces)	(Troy ounces)
3339- --	PRIMARY NONFERROUS METALS, N.E.C., TOTAL.....	(X)	(X)	362,694	(X)	(NA)	(X)	(NA)	(X)	(X)
33395 -- 33415 --	Precious metals.....	(X)	(X)	198,587	(X)	(NA)	(X)	(NA)	(X)	(X)
33415 pt	Made in industry 3341.....	(X)	(X)	52,956	(X)	(NA)	(X)	(NA)	(X)	(X)
33395 --	Made in primary nonferrous metals, n.e.c., industry and other industries.....	(X)	(X)	145,631	(X)	(NA)	(X)	(NA)	(X)	(X)
33395 11 33415 11 33395 31 33415 51 33395 51 33415 31	Unalloyed gold, platinum and silver.....	(NA)	(NA)	182,799	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
33395 61 33415 71	Alloys:									
33395 65 33415 81	Silver and silver-base alloys...	(NA)	(NA)	3,753	(NA)	(NA)	(NA)	(NA)	(NA)	-
	Gold and gold-base alloys.....	(NA)	(NA)	12,035	(NA)	(NA)	(NA)	(NA)	(NA)	-
		(Short tons)	(Short tons)		(Short tons)		(Short tons)		(Short tons)	(Short tons)
33397 -- 33416 --	Other nonferrous metals, smelted or refined.....	(X)	(X)	163,326	(X)	(NA)	(X)	(NA)	(X)	(X)
33416 pt	Made in industry 3341.....	(X)	(X)	21,798	(X)	(NA)	(X)	(NA)	(X)	(X)
33416 pt 33397 --	Made in industry 3339 and other industries.....	(X)	(X)	141,528	(X)	(NA)	(X)	(NA)	(X)	(X)
33397 11, 21, 51, 61, 71, 79 33416 61, 51, 69, 71, 81, 89	Other unalloyed metals (including magnesium, cadmium, nickel, tin, titanium sponge, antimony, cobalt, molybdenum, etc.).....	(NA)	(NA)	113,900	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
33397 89 33416 98	Other unrefined nonferrous metals (including metal bearing furnace residues and other metal products which have to be further refined before sale to customers).....									

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total production <sup>2</sup> (gross weight)	Shipments including interplant transfers <sup>1</sup>						Shipments of products made from materials owned by others <sup>3</sup> (gross weight)	Produced and consumed in the same plant in manufacture of other products (gross weight)
			Total		Shipments to all other companies		Transfers to other plants of the same company			
			Quantity (gross weight)	Value (\$1,000)	Quantity (gross weight)	Value (\$1,000)	Quantity (gross weight)	Value (\$1,000)		
	1958—Continued	(Short tons)	(Short tons)		(Short tons)		(Short tons)		(Short tons)	(Short tons)
3339- --	PRIMARY NONFERROUS METALS, N.E.C.—Continued									
33397 --	} Other nonferrous metals, smelted or refined—Continued									
33416 --										
33397 92	} Metal alloys:									
33416 21										
33397 93	} Magnesium-base alloys.....	(NA)	11,040	9,764	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
33416 31										
33397 94										
33416 41	} Other nonferrous metal alloys (including nickel-base alloys).	(X)	(X)	33,219	(X)	(NA)	(X)	(NA)	(X)	(X)
33397 00	} Other nonferrous metals, n.e.c., n.s.k.....									
33416 00			(X)	(X)	6,443	(X)	(NA)	(X)	(NA)	(X)
33390 00	Primary nonferrous metals, n.e.c., n.s.k.....	(X)	(X)	781	(X)	(NA)	(X)	(NA)	(X)	(X)
3341- --	SECONDARY SMELTING, REFINING, AND ALLOYING OF NONFERROUS METALS, TOTAL.....	(X)	(X)	1,859,159	(X)	(NA)	(X)	(NA)	(X)	(X)
33411 --	} Aluminum-base alloys.....									
33341 --			(X)	(X)	7507,695	(X)	277,198	(X)	230,497	(X)
33520 pt	} Refined copper.....									
33412 --			(X)	(X)	479,740	(X)	468,570	(X)	11,170	(X)
33312 --	} Refined lead.....									
33413 --			(X)	(X)	9280,937	(X)	(D)	(X)	(D)	(X)
33323 --	} Refined zinc.....									
33414 --			(X)	(X)	10206,691	(X)	201,451	(X)	5,240	(X)
33334 --	} Refined precious metals.....									
33415 --			(X)	(X)	11198,587	(X)	(NA)	(X)	(NA)	(X)
33395 --	} Other nonferrous metals, smelted and refined.....									
33416 --			(X)	(X)	12163,326	(X)	(NA)	(X)	(NA)	(X)
33397 --	} Secondary smelting, refining, and alloying, of nonferrous metals, n.s.k.....									
33410 00			(X)	(X)	22,183	(X)	(NA)	(X)	(NA)	(X)

Note: For each product included in this table, data were collected on the quantity of metal "received" from toll processors either for (1) consumption in producing other products; (2) shipment to customers; or (3) shipment to customers directly from the toll processor. However, these figures cannot be published without revealing the operations of individual companies, except for aluminum ingot and aluminum extrusion billet for which such receipts totaled 15,025 and 44,794 short tons, respectively.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Includes shipments of these products produced on a toll basis by others. Where data are shown separately for the various industries producing these products, such shipments are included in the industry for the establishment owning the material. However, production data are included in the industry of the toll processor.

<sup>2</sup>Includes toll production. For 1963 toll production was separately measured. However, since the differences between toll production and toll shipments (shipments of products made from materials owned by others) are minor, toll production is not shown separately.

<sup>3</sup>Includes shipments to other smelters and refiners, shipments to consumers and to some nonmanufacturing companies which sell direct to consumers.

<sup>4</sup>Includes antimonial lead, babbitt metal, solder, type metal and other lead- and tin-base alloys.

<sup>5</sup>Of this amount, \$4,155 thousand was reported by industry 3341, Secondary Nonferrous Metals, and \$930 thousand by other industries.

<sup>6</sup>Most of the aluminum ingot and billet (alloys) produced by aluminum rolling mills represent duplication of tonnages reported by the primary aluminum industry in that the metal produced by the rolling mills is made from ingot produced in primary aluminum plants.

<sup>7</sup>Aluminum ingot and aluminum extrusion billet are primary to the primary aluminum industry, aluminum rolling mills, and secondary smelters and refiners. Detail is shown under product classes 33347 and 33348 in 1963. For 1958, the comparable product classes are 33341 in industry 3334 and 33411 in industry 3341.

<sup>8</sup>Refined copper is primary to both primary copper and secondary smelters and refiners. Detail is shown under product class 33312.

<sup>9</sup>Refined lead is primary to both primary lead and secondary smelters and refiners. Detail is shown under product class 33323.

<sup>10</sup>Refined zinc is primary to both primary zinc and secondary smelters and refiners. Detail is shown under product class 33334.

<sup>11</sup>Refined precious metals are primary to both primary nonferrous metals, n.e.c., and secondary smelters and refiners. Detail is shown under product class 33395.

<sup>12</sup>Other nonferrous metals, smelted or refined, are primary to both primary nonferrous metals, n.e.c., and secondary smelters and refiners. Detail is shown under product class 33397.

<sup>13</sup>Of this amount \$4,452 thousand was reported by industry 3341, Secondary Nonferrous Metals, and \$1,564 thousand by other industries.

<sup>14</sup>Excludes ingot and billet produced and consumed in rolling mills.



TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
333	Primary nonferrous metals <sup>1</sup> .....1963 <sup>1</sup> ..	128	98
	.....1958..	110	98
3331	Primary copper.....1963..	140	105
	.....1958..	112	90
33311	Copper smelter products.....1963..	153	97
	.....1958..	113	87
33312 } 33412 }	Refined copper <sup>2</sup> .....1963..	124	113
	.....1958..	111	93
33323 } 33413 }	Refined lead <sup>2</sup> .....1963..	103	85
	.....1958..	96	88
3333	Primary zinc.....1963..	125	96
	.....1958..	101	92
33331	Zinc residues and other zinc smelter products.....1963..	150	94
	.....1958..	138	96
33334 } 33414 }	Refined zinc <sup>2</sup> .....1963..	121	99
	.....1958..	97	91
3334 } 33417 } 33418 } 33527 } 33528 }	Refined aluminum <sup>2</sup> .....1963..	201	109
	.....1958..	113	121
3341-	Secondary nonferrous metals <sup>3</sup> .....1963..	( <sup>3</sup> )	( <sup>3</sup> )
	.....1958..	( <sup>3</sup> )	( <sup>3</sup> )

<sup>1</sup>Adjusted to include products not shown separately below, namely primary nonferrous metals, n.e.c. (products of industry 3339) and lead smelter products (product class 33321).

<sup>2</sup>These indexes have been computed on an all-industry or "wherever-made" basis - that is, they include the production (including toll production) not only of primary refiners classified in Group 333, but also of secondary refiners (industry 3341) and, in the case of aluminum, aluminum rolling mills (industry 3352) as well.

<sup>3</sup>No separate indexes are shown for secondary refiners, since their production and shipments data have entered into the computation of the indexes for the respective refined metals shown above - see footnote 2.

TABLE 6C. Product Classes—Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3331-	Primary copper <sup>2</sup> .....	1,297,102	1,279,708	1,235,809	1,202,371	824,812	877,421	892,285	(NA)
33311	Copper smelter products.....	628,508	642,753	620,288	599,587	350,237	397,681	369,431	237,103
33312	Refined primary copper <sup>2</sup> .....	668,594	636,955	615,521	602,784	474,575	479,740	522,854	(NA)
3332-	Primary lead.....	(D)	(D)	(D)	(D)	(D)	(D)	433,686	(NA)
33321	Lead smelter products.....	(D)	(D)	(D)	(D)	(D)	(D)	118,926	124,796
33323	Refined primary lead <sup>3</sup> .....	276,388	260,103	275,539	279,721	277,633	280,937	314,760	(NA)
3333-	Primary zinc <sup>4</sup> .....	308,538	278,171	278,492	272,570	265,741	232,513	251,469	(NA)
33331	Zinc residues and other zinc smelter products.....	34,798	34,487	25,604	25,957	27,925	25,822	20,481	(NA)
33334	Refined primary zinc products <sup>4</sup> .....	273,740	243,684	252,888	246,613	237,816	206,691	230,988	(NA)
3334-	Primary aluminum <sup>5</sup> .....	1,420,182	1,304,551	1,293,828	1,261,576	1,285,023	1,057,801	767,512	(NA)
33347	Aluminum ingot produced in primary aluminum reduction plants <sup>5</sup> .....	1,234,704	1,304,551	1,293,828	1,261,576	1,285,023	1,057,801	767,512	(NA)
33348	Aluminum extrusion billet, produced in primary aluminum reduction plants <sup>5</sup> .....	185,478							
3339-	Primary nonferrous metals, n.e.c. <sup>7</sup> .....	439,385	(S)	(S)	(S)	(S)	362,694	480,604	(NA)
33395	Precious metals (primary smelting) <sup>7</sup> .....	246,426	(S)	(S)	(S)	147,564	198,587	192,760	(NA)
33397	Other primary nonferrous metals, including magnesium, smelted or refined <sup>8</sup> .....	192,959	238,939	216,842	215,638	168,402	163,326	287,844	(NA)
33390	Nonferrous metals, n.e.c., n.s.k. <sup>8</sup> .....	-	(S)	(S)	(S)	(S)	781	-	(NA)
3341-	Secondary nonferrous metals <sup>9</sup> .....	3,102,519	(S)	(S)	(S)	(S)	2,409,265	2,316,718	(NA)
33412	Secondary copper (ingot, shot, etc.) <sup>9</sup> .....	668,594	636,955	615,521	602,784	474,575	479,740	522,854	(NA)
33413	Secondary lead (ingot, shot, etc.) <sup>9</sup> .....	276,388	260,103	275,539	279,721	277,633	280,937	314,760	(NA)
33414	Secondary zinc (ingot, shot, etc.) <sup>9</sup> .....	273,740	243,684	252,888	246,613	237,816	206,691	230,988	(NA)
33417	Aluminum ingot produced by secondary smelters <sup>9</sup> .....	1,234,704	1,304,551	1,293,828	1,261,576	1,285,023	1,057,801	767,512	(NA)
33418	Aluminum extrusion billet, produced by secondary smelters <sup>9</sup> .....	185,478							
33415	Precious metals produced by secondary refineries (pig, ingot, shot, etc.) <sup>9</sup> .....	246,426	(S)	(S)	(S)	147,564	198,587	192,760	(NA)
33416	Other secondary nonferrous metals (pig, ingot, shot, etc.) <sup>9</sup> .....	192,959	238,939	216,842	215,638	168,402	163,326	287,844	(NA)
33410	Secondary smelting, refining, and alloying of nonferrous metals and alloys, n.s.k. <sup>10</sup> .....	24,230	(S)	(S)	(S)	(S)	22,183	-	-

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>2</sup>Includes product class 33412, Secondary copper, (ingot, shot, etc.), made by secondary smelters, which is primary to industry 3341.

<sup>3</sup>Includes product class 33413, Secondary lead (ingot, shot, etc.), made by secondary smelters, which is primary to industry 3341.

<sup>4</sup>Includes product class 33414, Secondary zinc (ingot, shot, etc.), made by secondary smelters, which is primary to industry 3341.

<sup>5</sup>Includes product class 33417, Aluminum ingot, produced by secondary nonferrous smelters, which is primary to industry 3341 and product class 33527, Aluminum ingot, produced in aluminum rolling mills, which is primary to industry 3352.

<sup>6</sup>Includes product class 33418, Aluminum extrusion billet, produced by secondary smelters, which is primary to industry 3341, and 33528, Aluminum extrusion billet, produced in aluminum rolling mills, which is primary to industry 3352.

<sup>7</sup>Includes product class 33415, Precious metals, produced by secondary refineries (pig ingot, shot, etc.), which is primary to industry 3341.

<sup>8</sup>Includes product class 33416, Other secondary nonferrous metals (pig, ingot, shot, etc.), shipped by secondary smelters, which is primary to industry 3341.

<sup>9</sup>The product classes within industry 3341 include the values for the comparable product class for the specified metal for Industry Group 333- as listed below. The total for 3341- includes all such product classes. Also, product class 33417 includes 33527, Aluminum ingot, and product class 33418 includes 33528, Aluminum extrusion billet, both made in aluminum rolling mills which are primary to industry 3352.

33412 comparable to 33312  
 33413 comparable to 33323  
 33414 comparable to 33334  
 33415 comparable to 33395  
 33416 comparable to 33397  
 33417 comparable to 33347  
 33418 comparable to 33348



TABLE 6D. **Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments
SECONDARY COPPER (33312 and 33412)	1963 <sup>1</sup>	SECONDARY ZINC (33334 and 33414)	1963 <sup>1</sup>	OTHER SECONDARY NONFERROUS METALS (33397 and 33416)-- Continued	1963 <sup>1</sup>
U.S. total.....	668,594	U.S. total.....	273,740	North Central.....	47,164
New England.....	9,525	Northeast.....	74,381	Ohio.....	27,834
Middle Atlantic.....	193,051	Pennsylvania.....	62,844	Indiana.....	3,999
Pennsylvania.....	48,890	North Central.....	44,613	Illinois.....	8,507
North Central.....	148,771	Illinois.....	37,661	South Atlantic.....	7,127
Ohio.....	17,100	South.....	111,830	East South Central.....	13,021
Illinois.....	68,495	Oklahoma.....	46,009	West South Central.....	57,026
Michigan.....	52,146	West.....	42,916	Texas.....	50,132
South.....	39,310	California.....	5,464	Mountain.....	16,375
West.....	277,937			Pacific.....	10,710
SECONDARY LEAD (33323 and 33413)		PRECIOUS METALS (33395 and 33415)		ALUMINUM INGOT (33347, 33417 and 33527)	
U.S. total.....	276,388	U.S. total.....	246,426	U.S. total.....	1,234,704
Northeast.....	58,985	New England.....	9,580	Northeast.....	173,619
New York.....	16,310	Middle Atlantic.....	97,321	New York.....	145,374
New Jersey.....	29,959	New York.....	7,770	New Jersey.....	8,156
East North Central.....	78,282	North Central.....	44,403	Pennsylvania.....	15,259
Ohio.....	13,568	South and West.....	95,122	East North Central.....	225,825
Illinois.....	45,163			Ohio.....	149,612
Michigan.....	7,034	OTHER SECONDARY NONFERROUS METALS (33397 and 33416)		Indiana.....	33,036
West North Central.....	48,992	U.S. total.....	192,959	Illinois.....	41,264
South Atlantic.....	14,637	New England.....	4,569	West North Central.....	10,977
North Carolina.....	2,152	Middle Atlantic.....	36,967	South.....	515,399
East South Central.....	2,249	New York.....	11,865	West.....	308,884
West South Central.....	19,408	New Jersey.....	5,772	Washington.....	211,730
West.....	53,835	Pennsylvania.....	19,330	California.....	18,012
California.....	27,762			ALUMINUM EXTRUSION BILLET (33348, 33418, and 33528)	
				U.S. total.....	185,478
				Northeast and North Central	71,979
				South and West.....	113,499
				Washington.....	22,829

<sup>1</sup>For the specified product classes, shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosures of individual company figures: Product classes 33312 and 33412, Massachusetts, New York, New Jersey, Indiana, Kansas, Delaware, Maryland, Tennessee, Alabama, Texas, Montana, New Mexico, Arizona, Utah, Washington, and California; 33323 and 33413, Pennsylvania, Indiana, Wisconsin, Minnesota, Missouri, Nebraska, Delaware, Maryland, Florida, Tennessee, Louisiana, Texas, Idaho, Washington and Oregon; 33334 and 33414, New York, New Jersey, Ohio, Delaware, West Virginia, Arkansas, Texas, Montana, and Idaho; 33347, 33417 and 33527, Connecticut, Michigan, Iowa, Missouri, Nebraska, Kansas, Delaware, Virginia, West Virginia, North Carolina, Kentucky, Tennessee, Alabama, Arkansas, Louisiana, Texas, Montana, and Oregon; 33348, 33418 and 33528, New York, New Jersey, Pennsylvania, Ohio, Indiana, Florida, Kentucky, Arkansas, Louisiana, Texas, Oregon, and California; 33395, 33415, Massachusetts, Rhode Island, New Jersey, Pennsylvania, Illinois, Nebraska, Maryland, Oklahoma, Texas, Idaho, Utah, Washington, and California; 33397 and 33416, New Hampshire, Michigan, Wisconsin, Nebraska, Maryland, Florida, Tennessee, Alabama, Mississippi, Oklahoma, Montana, Idaho, Colorado, Nevada, Oregon, and California.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
102100	Materials, containers and supplies, total <sup>2</sup> .....	.....	(X)	928,334	(X)	662,392
	Copper:					
	Ores, concentrates and precipitates <sup>3</sup> .....	Gross weight				
		short tons.....	11,084,813	496,250	7,139,653	324,142
		Short tons.....	544,211	299,166	512,086	256,134
333111	Blister or anode copper <sup>4</sup> .....	.....do.....	13,853	10,099	13,742	5,072
970099	Copper and copper-base alloy scrap (purchased scrap only).....	.....	-	122,819	-	77,044
103200	All other materials and components, parts, containers, and supplies consumed.....	.....	INDUSTRY 3332.—PRIMARY LEAD <sup>1</sup>			
	Materials, containers and supplies, total <sup>2</sup> .....	.....	(X)	222,289	(X)	279,109
	Lead:					
	Ores and concentrates.....	Gross weight				
		short tons.....	866,615	131,682	980,541	121,644
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	-	90,607	-	157,465
103300	INDUSTRY 3333.—PRIMARY ZINC <sup>1</sup>					
	Materials, containers and supplies, total.....	.....	(X)	151,884	(X)	113,813
	Zinc:					
	Ores and concentrates.....	Gross weight				
		short tons.....	1,878,788	118,433	1,441,946	86,156
333341	Refined unalloyed zinc.....	Short tons.....	16,077	3,628	-	-
999814	Zinc and zinc-base alloy scrap, including drosses and skimmings (purchased scrap only).....	.....do.....	106,439	12,891	38,149	4,417
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	-	16,932	-	23,240
281951	INDUSTRY 3334.—PRIMARY ALUMINUM <sup>1</sup>					
	Materials, containers and supplies total.....	.....	(X)	434,328	(X)	319,639
	Alumina.....	Gross weight				
		short tons.....	4,461,636	291,119	2,978,027	216,759
		Short tons.....	4,566	2,622	(NA)	(NA)
970099	Copper and copper-base alloy scrap (purchased scrap only).....	.....	(X)	140,587	-	102,880
333471	All other materials and components, parts, containers, and supplies consumed.....	.....	INDUSTRY 3341.—SECONDARY NONFERROUS METALS <sup>1</sup>			
	Materials, containers and supplies, total.....	.....	(X)	676,580	(X)	495,744
	Aluminum ingot.....	Short tons.....	86,949	33,268	20,931	10,199
	Aluminum and aluminum-base alloy scrap (purchased scrap only):					
	From other establishments of the same company.....	.....do.....	229,830	63,690	308,666	95,858
From all other sources.....	.....do.....	333,691	82,335			
333121	Copper:					
999812	Refined unalloyed copper (cathodes, ingot, cakes, slabs, etc.)...	.....do.....	6,378	3,585	3,729	2,030
	Copper and copper-base alloy scrap (purchased scrap only).....	.....do.....	357,494	159,015	346,565	123,370
333233	Lead:					
999813	Refined unalloyed lead.....	.....do.....	122,903	26,455	25,446	5,980
	Lead and lead-base alloy scrap (purchased scrap only).....	.....do.....	524,080	77,249	376,711	70,498
333341	Zinc:					
999814	Refined unalloyed zinc.....	.....do.....	68,769	17,248	65,346	14,284
	Zinc and zinc-base alloy scrap (purchased scrap only).....	.....do.....	81,781	11,536	79,667	10,759

See footnotes at end of table.



TABLE 7A. **Materials by Kind: 1963 and 1958**—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost	Quantity	Delivered cost
				(\$1,000)		(\$1,000)
			INDUSTRY 3341.—SECONDARY NONFERROUS METALS <sup>1</sup> —Continued			
333976	Tin:					
	Refined unalloyed tin.....	Short tons.....	13,558	31,202	8,945	17,012
999815	Tin plate scrap (purchased scrap only).....	...do.....	352,630	9,094	501,288	11,832
970099	All other materials and components, parts, containers and supplies consumed.....	.....	-	161,903	-	133,922

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>Smelting and refining establishments were instructed to include in their reports the quantity and cost of purchased materials which they processed or furnished to others for toll processing, but to exclude materials processed on a toll basis for others. Accordingly, the data shown in this table excludes considerable quantities of materials consumed by establishments in these industries in the production of the products shown in table 6A.

<sup>2</sup>The cost of materials for this industry includes extensive duplication. This duplication arises because the products of some establishments are used as materials by other establishments in the same industry.

<sup>3</sup>Includes leaching ores received in crude form from mines by leaching plants operated in conjunction with smelting and refining operations. Such ores represent about half the total quantity of ores, concentrates and precipitates consumed but about 15 percent of the value of these materials.

<sup>4</sup>Excludes materials consumed by establishments producing copper by leaching or from Lake Superior ores as no distinct blister stage exists in the production at these establishments.

TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

Item	Primary copper (SIC 3331)	Primary lead (SIC 3332)	Primary zinc (SIC 3333)	Primary aluminum (SIC 3334)	Primary nonferrous metals, n.e.c. (SIC 3339)	Secondary nonferrous metals (SIC 3341)
Total cost of purchased fuels and electric energy.....\$1,000..	27,404	5,698	18,758	116,390	9,084	11,612
Total cost of purchased fuels.....do....	19,627	4,909	11,183	27,222	2,768	8,675
Bituminous coal, lignite, and anthracite:						
Quantity.....1,000 short tons..	181	(S)	404	(S)	(S)	26
Cost.....\$1,000..	1,745	(S)	3,277	(S)	(S)	154
Coke and breeze:						
Quantity.....1,000 short tons..	103	(S)	129	-	(S)	33
Cost.....\$1,000..	2,232	(S)	1,626	-	(S)	821
Fuel oil (distillate and residual):						
Quantity.....1,000 barrels of 42 gallons..	2,123	(S)	17	(S)	121	794
Cost.....\$1,000..	5,258	(S)	65	(S)	463	2,895
Gas (natural, manufactured, still, blast furnace, and coke oven):						
Quantity.....million cu.ft..	32,774	4,145	26,541	108,615	8,584	7,820
Cost.....\$1,000..	10,231	1,485	6,195	19,632	2,061	3,951
Other fuels.....do....	161	(S)	(S)	280	46	854
Electric energy:						
Purchased:						
Quantity.....million kw.-hrs..	969	95	1,364	26,883	1,156	193
Cost.....\$1,000..	7,777	789	7,575	89,168	6,316	2,937
Generated less sold.....million kw.-hrs..	378	(S)	649	10,104	(S)	-
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	538	63	458	2,339	103	139
Prime movers, total.....do....	304	11	194	1,843	6	42
Driving generators.....do....	219	3	174	1,787	3	8
Not driving generators.....do....	85	8	20	56	3	34
Electric motors, total.....do....	319	54	305	724	97	97
Driven by purchased energy.....do....	234	52	264	497	97	97
Driven by energy generated at establishment.....do....	85	2	41	228	(Z)	-
Aggregate horsepower per 100 production workers.....	4,205	3,063	6,645	17,102	2,817	1,119

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3339-	PRIMARY NONFERROUS METALS, N.E.C.										
	Entire industry.....	35	5,064	34,807	3,782	8,148	24,701	103,830	115,519	212,176	6,435
	Establishments with--										
	90% or more specialization..	27	3,435	23,877	2,722	5,774	17,847	64,994	90,797	150,472	4,740
3341-	SECONDARY NONFERROUS METALS										
	Entire industry.....	459	15,445	96,302	11,336	23,779	60,510	228,190	823,132	1,045,522	17,891
	Establishments with--										
	90% or more specialization..	387	12,506	79,008	9,083	19,093	48,774	174,128	692,594	864,543	15,242
	75-89% specialization.....	20	708	3,907	565	1,191	2,970	14,293	40,671	53,725	283
33412	Secondary copper (primary product class of estab.).....	66	3,617	23,274	2,662	5,444	14,633	44,176	249,732	291,467	3,613
	Establishments with--										
	90% or more specialization....	40	1,579	10,252	1,128	2,400	6,101	17,504	124,738	142,097	2,350
	75-89% specialization.....	9	1,058	6,977	822	1,662	4,816	14,284	73,104	85,618	1,119
33413	Secondary lead (primary product class of estab.).....	106	4,176	25,333	3,074	6,497	15,862	62,663	213,790	271,940	2,775
	Establishments with--										
	90% or more specialization....	71	2,240	13,538	1,660	3,520	8,450	32,983	94,975	125,673	1,719
	75-89% specialization.....	17	820	4,820	615	1,294	3,245	10,799	50,241	60,884	152
33414	Secondary zinc (primary product class of estab.).....	41	713	4,592	554	1,145	3,007	13,124	25,813	38,416	308
	Establishments with--										
	90% or more specialization....	30	352	2,185	273	577	1,392	5,536	11,658	16,884	123
33415	Precious metals produced by secondary refiners (primary product class of estab.).....	42	1,041	6,318	634	1,260	3,308	22,729	57,404	86,396	1,235
	Establishments with--										
	90% or more specialization....	34	523	3,416	305	645	1,656	14,762	45,563	66,700	1,119
33416	Other secondary nonferrous metals, (primary product class of estab.)	28	701	5,180	380	839	2,466	17,110	22,949	38,961	2,799
	Establishments with--										
	90% or more specialization....	20	606	4,510	324	717	2,142	12,633	17,599	29,199	2,671
33417	Aluminum ingot, produced by secondary smelters (primary product class of estab.).....	76	3,916	24,691	3,007	6,416	16,426	49,834	211,707	258,687	5,272
	Establishments with--										
	90% or more specialization....	60	2,861	17,974	2,261	4,846	12,358	36,145	150,531	186,040	4,723
	75-89% specialization.....	9	599	3,775	397	787	2,113	8,140	31,531	38,218	439
33418	Aluminum extrusion billet, produced by secondary smelters (primary product class of estab.)	8	243	1,364	191	401	944	3,095	13,955	16,976	116

## NONFERROUS METAL MILL AND FOUNDRY PRODUCTS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3351—Rolling, Drawing, and Extruding of Copper
- 3352—Rolling, Drawing, and Extruding of Aluminum
- 3356—Rolling, Drawing, and Extruding of Nonferrous Metals, Except Copper and Aluminum
- 3357—Drawing and Insulating of Nonferrous Wire
- 3361—Aluminum Castings
- 3362—Brass, Bronze, Copper, Copper-Base Alloy Castings
- 3369—Nonferrous Castings, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3351—ROLLING, DRAWING, AND EXTRUDING OF COPPER

This industry comprises establishments primarily engaged in rolling, drawing, and extruding copper, brass, bronze, and other copper base alloy basic shapes, such as plate, sheet, strip, bar, and tubing. Establishments primarily engaged in recovering copper and its alloys from scrap or dross are classified in industry 3341. For a detailed list of products of industry 3351, refer to table 6A-1 product codes 3351111 to 3351288.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Copper Rolling and Drawing Industry totaled \$1,657 million. This amount included shipments of rolled, drawn, and extruded copper (primary products) valued at \$1,409 million, shipments of other products (secondary products) valued at \$154 million, and miscellaneous receipts at \$94 million.

This industry's shipments of rolled, drawn, and extruded copper represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was 88 percent.

Shipments of rolled, drawn, and extruded copper by this industry represented 91 percent of all shipments of these products (\$1,545 million) by all industries. In 1958 the coverage ratio was 94 percent.



The production index for the primary products of the industry increased to 129 in 1963 from the 1958 level of 88. The unit value index for 1963 was 100 compared to 99 in 1958. Both indexes were computed on a basis of 1954 = 100.

This industry includes a variety of operations ranging from rod, wire, tube, and flat products mills to machine shop and fabricating activities. Accordingly, in order to provide a measure of the relative importance of these departments, data were collected on man-hours worked and production worker wages paid for each of several departments. The resulting data are shown in table 9A.

Also, based on the data reported for these various departmental operations, it was possible to further classify the establishments of this industry into two "subindustries," i.e., establishments with casting facilities and establishments without casting facilities.

Separate data are shown for these subindustries in tables 1, 2, 3, 4, 5B, 7A, 8, and 9A.

### 3352—ROLLING, DRAWING, AND EXTRUDING OF ALUMINUM

This industry comprises establishments primarily engaged in rolling, drawing, and extruding aluminum and aluminum base alloy basic shapes, such as plate, sheet, strip, bar, tubing, and foil. For a detailed list of products of industry 3352, refer to table 6A-1, product codes 3352111 to 3352811.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Aluminum Rolling and Drawing Industry totaled \$2,196 million. This amount included shipments of rolled, drawn, and extruded aluminum (primary products) valued at \$1,758 million, shipments of other products (secondary products) valued at \$304 million, and miscellaneous receipts at \$134 million.

This industry's shipments of rolled, drawn, and extruded aluminum represented 85 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 included sheet metal roofing and siding and roof drainage equipment (\$30 million), and metal foil and leaf (\$121 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 49 percent of the total industry shipments are represented by plants specializing in product class 33522, aluminum plate and sheet (including foil stock).

Shipments of rolled, drawn, and extruded aluminum by this industry represented 93 percent of all shipments of these products (\$1,899 million) by all industries. In 1958 the coverage ratio was 92 percent.

The production index for the primary products of the industry increased to 214 in 1963 from the 1958 level of 136. The unit value index for 1963 was 98 compared to 112 in 1958. Both indexes were computed on a basis of 1954 = 100.

This industry includes a variety of operations ranging from melting (except foundry) through mills such as sheet and plate; foil rolling; wire, rod and bar; extrusion; and tube to fabricating activities. Accordingly, in order to provide a measure of the relative importance of these departments, data were collected on man-hours worked and production worker wages paid, for each of several departments. The resulting data are shown in table 9A.

In addition, companies with establishments classified in this industry were queried as to whether or not the company also operated aluminum reduction facilities. Based on this inquiry, it was possible to further classify the establishments into two "subindustries," i.e., establishments operated by primary (integrated) producers, and establishments operated by nonintegrated producers. This subindustry classification system differs significantly from the subindustry definitions used in industries 3312, Blast Furnaces and Steel Mills; 3351, Copper Rolling and Drawing; and 3357, Nonferrous Wire Drawing, Etc., in that the definition for these other primary metal industries are based on the types of facilities existing at each separate establishment.

Separate data are shown for the subindustries of this industry in tables 1, 3, 4, and 9A.

#### 3356—ROLLING, DRAWING, AND EXTRUDING OF NONFERROUS METALS, EXCEPT COPPER AND ALUMINUM

This industry comprises establishments primarily engaged in rolling, drawing, and extruding nonferrous metals other than copper (industry 3351), and aluminum (industry 3352). The products of this industry are produced in the form of basic shapes such as plate, sheet, strip, bar, and tubing. Establishments primarily engaged in recovering nonferrous metals and alloys from scrap or dross are classified in industry 3341; in manufacturing gold, silver, tin, and other foils, except aluminum, in industry 3497; and aluminum foil in industry 3352. For a detailed list of products of industry 3356, refer to table 6A-1, product codes 3356043 to 3356098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Rolling and Drawing, N.E.C., Industry totaled \$641 million. This amount included shipments of rolled, drawn, and extruded nonferrous metals, n.e.c. (primary products) valued at \$511 million, shipments of other products (secondary products) valued at \$99 million, and miscellaneous receipts (mainly resales) at \$30 million.

This industry's shipments of rolled, drawn, and extruded nonferrous metals, n.e.c., represented 84 percent of its total product shipments. The industry specialization ratio in 1958 was 77 percent.

Shipments of rolled, drawn, and extruded nonferrous metals, n.e.c., by this industry represented 81 percent of all shipments of these products (\$631 million) by all industries. In 1958 the coverage ratio was 82 percent. Other industries shipping rolled, drawn, and extruded nonferrous metals, n.e.c., included industry 3351, Copper Rolling and Drawing, \$19 million; and industry 3341, Secondary Nonferrous Metals, \$17 million.

The production index for the primary products of the industry increased to 168 in 1963 from the 1958 level of 116. The unit value index for 1963 was 104 compared to 103 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3357—DRAWING AND INSULATING OF NONFERROUS WIRE

This industry comprises establishments primarily engaged in drawing, drawing and insulating, and insulating wire and cable of nonferrous metals from purchased wire bars, rods, or wire. For a detailed list of products of industry 3357, refer to table 6A-1, product codes 3357111 to 3357998.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.



Since this industry includes both wire drawing (including wire redrawing) establishments, and establishments insulating wire and cable from purchased wire, some duplication of value exists in both the value of shipments and cost of materials, etc., for the industry. However, as shown in the data on materials consumed in table 7A for copper and aluminum wire for redrawing, and copper and aluminum bare wire, such duplication approximates \$160 million, less than 15 percent of the total cost of materials, etc., for the industry.

Value of shipments and other receipts of the Nonferrous Wire Drawing, Etc., Industry totaled \$2,118 million. This amount included shipments of drawn and insulated nonferrous wire (primary products) valued at \$1,885 million, shipments of other products (secondary products) valued at \$176 million, and miscellaneous receipts at \$56 million.

This industry's shipments of drawn and insulated nonferrous wire represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 36 percent of the total industry shipments are represented by plants specializing in product class 33574, communication wire and cable, and 23 percent in product class 33579, other insulated wire and cable, n.e.c.

Shipments of drawn and insulated nonferrous wire by this industry represented 86 percent of all shipments of these products (\$2,185 million) by all industries. In 1958 the coverage ratio was 83 percent.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3357, e.g., aluminum and aluminum-base alloy wire and cable (including ACSR), 52 percent; other bare nonferrous metal wire made in nonferrous wire drawing plants, 57 percent; nonferrous wire cloth and other woven wire products, 30 percent; and appliance wire and cord and flexible cord sets, 61 percent.

The production index for the primary products of the industry increased to 146 in 1963 from the 1958 level of 112. The unit value index for 1963 was 103 compared to 102 in 1958. Both indexes were computed on a basis of 1954 = 100.

This industry includes a variety of operations ranging from rod mill, and wire drawing mill through insulating to fabricating activities. Accordingly, in order to provide a measure of the relative importance of these departments, data were collected on man-hours worked and production worker wages paid, for each of several departments. The resulting data are shown in table 9A.

Also, based on the data reported for these various departmental operations, it was possible to further classify the establishments into four "subindustries," i.e., establishments with wire drawing department and rod mill, establishments with wire drawing department with neither a rod mill nor an insulating department, establishments with wire drawing and insulating departments but without rod mill, and establishments without a wire drawing department.

The subindustry data shown in tables 1, 2, 3, 4, 5B, 7A, 8, and 9A are based on this system of classification.

#### NONFERROUS FOUNDRIES

This group is comprised of three foundry industries, namely industry 3361, Aluminum Castings, industry 3362, Brass, Bronze, Copper Castings, and industry 3369, Nonferrous Castings, N.E.C. These foundry industries comprise establishments primarily engaged

in manufacturing aluminum castings, including cast aluminum cooking utensils (3361), brass, bronze, and copper castings including unmachined bearings and bushings (3362), and other nonferrous castings (3369).

For these industries, captive production (that is, the tonnage of castings produced for incorporation into the final product of the plant or company) is a particularly important factor. Distinction is made between rough castings and castings which are machined or further processed and incorporated into other products. The removal of gates, risers, sprues, and tumbling, dipping, and sand blasting do not constitute machining. Plants primarily engaged in manufacturing castings are included in the foundry industries; plants primarily engaged in further processing castings into parts for metal products or machinery are classified in other major groups.

For the 1963 and 1958 Census of Manufactures separate establishment reports were received from all commercial (jobbing) foundries and from those captive foundries which were operated as separate establishments by the reporting companies. These two groups comprise the types of establishments included in industries 3361, 3362, and 3369. However, where the captive foundry operation was completely integrated with the operations of the entire plant, no separate establishment report was received for the foundry activity. In these instances data were obtained on the tonnage of castings produced and consumed and on the number of employees usually engaged in the captive foundry operation. However, establishments with such foundry departments were classified on the basis of the plant's final product and accordingly, the general statistics on employment, payrolls, cost of materials, etc., are included in the data for such industries as Plumbing Fittings, Brass Goods (3432) and Valves and Pipe Fittings (3494), etc.

The data shown in table 6A-1 for nonferrous castings represent total shipments and transfers including the quantity of castings shipped by establishments classified in industries other than the foundry industries (3361, 3362, and 3369). For those industries where captive foundry departments are particularly important, data on the tonnage of castings produced and consumed are shown in table 7A of the individual industry reports covering the specific industries.

During 1963 and 1958 the Bureau of the Census also collected and published monthly data on shipments of nonferrous castings. These monthly data were derived from a sample survey and were published in Current Industrial Reports Series M33E, Nonferrous Castings. The M33E series includes data for both commercial and captive foundry production and shows separately shipments "for sale" and shipments "for own use."

It should be specifically noted that the quantity and value data on shipments of nonferrous castings in table 6A-1 do not include the quantity and value of the large quantity of castings produced by establishments classified in other industries which produce castings only for incorporation into their own products or for internal use but not for sale as such.

### 3361—ALUMINUM CASTINGS

This industry comprises establishments primarily engaged in manufacturing castings and die castings of aluminum. For a detailed list of products of industry 3361, refer to table 6A-1, product codes 3361011 to 3361075.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Aluminum Castings Industry totaled \$640 million. This amount included shipments of aluminum and aluminum-base alloy castings (primary products) valued at \$505 million, shipments of other products (secondary products) valued at \$122 million, and miscellaneous receipts at \$14 million.



This industry's shipments of aluminum and aluminum-base alloys castings represented 81 percent of its total product shipments. The industry specialization ratio in 1958 was 79 percent. Secondary products shipped by this industry in 1963 consisted mainly of nonferrous castings, n.e.c. (\$60 million), and special dies and tools, die sets, jigs and fixtures (\$18 million).

Shipments of aluminum and aluminum-base alloy castings by this industry represented 83 percent of all shipments of these products (\$607 million) by all industries. In 1958 the coverage ratio was 81 percent. Other industries shipping aluminum and aluminum-base alloy castings included industry 3362, Brass, Bronze, Copper Castings, \$18 million; and industry 3369, Nonferrous Castings, N.E.C., \$39 million.

The production index for the primary products of the industry increased to 174 in 1963 from the 1958 level of 103. The unit value index for 1963 was 92 compared to 102 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3362—BRASS, BRONZE, COPPER, COPPER-BASE ALLOY CASTINGS

This industry comprises establishments primarily engaged in manufacturing castings and die castings of copper and copper-base alloy. For a detailed list of products of industry 3362, refer to table 6A-1, product codes 3362011 to 3362071.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Brass, Bronze, Copper Castings Industry totaled \$288 million. This amount included shipments of copper and copper-base alloy castings (primary products) valued at \$235 million, shipments of other products (secondary products) valued at \$44 million, and miscellaneous receipts at \$9 million.

This industry's shipments of copper and copper-base alloy castings represented 84 percent of its total product shipments. The industry specialization ratio in 1958 was 85 percent. Secondary products shipped by this industry in 1963 consisted mainly of aluminum and aluminum-base alloy castings (\$18 million), and steel castings (\$6 million).

Shipments of copper and copper-base alloy castings by this industry represented 78 percent of all shipments of these products (\$300 million) by all industries. In 1958 the coverage ratio was 81 percent. Other industries shipping copper and copper-base alloy castings included industry 3361, Aluminum Castings, \$16 million; and industry 3321, Gray Iron Foundries, \$10 million.

The production index for the primary products of the industry increased to 99 in 1963 from the 1958 level of 77. The unit value index for 1963 was 129 compared to 123 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3369—NONFERROUS CASTINGS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing castings and die castings of nonferrous materials, except aluminum, copper, and copper-base alloys. For a detailed list of products of industry 3369, refer to table 6A-1, product codes 3369011 to 3369098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Nonferrous Castings, N.E.C., Industry totaled \$303 million. This amount included shipments of nonferrous castings, n.e.c. (primary

products) valued at \$229 million, shipments of other products (secondary products) valued at \$64 million, and miscellaneous receipts (mainly resales) at \$9 million.

This industry's shipments of nonferrous castings, n.e.c., represented 78 percent of its total product shipments. The industry specialization ratio in 1958 was also 78 percent. Secondary products shipped by this industry in 1963 consisted mainly of aluminum and aluminum-base alloy castings (\$39 million), and special dies and tools, die sets, jigs and fixtures (\$10 million).

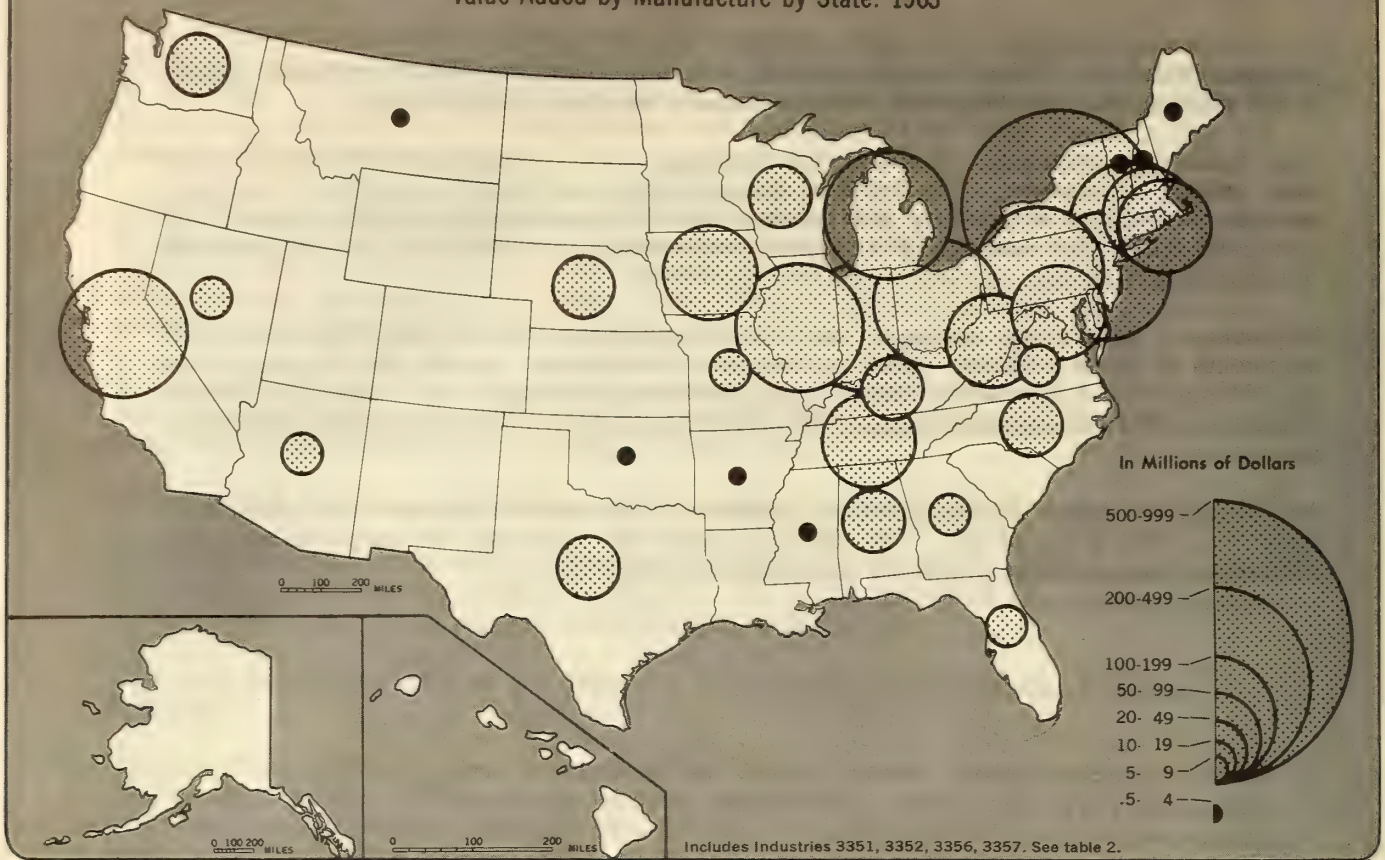
Shipments of nonferrous castings, n.e.c., by this industry represented 75 percent of all shipments of these products (\$306 million) by all industries. In 1958 the coverage ratio was 77 percent. Other industries shipping nonferrous castings, n.e.c., consisted mainly of industry 3361, Aluminum Castings, \$60 million; and industry 3321, Gray Iron Foundries, \$3 million.

The production index for the primary products of the industry increased to 125 in 1963 from the 1958 level of 95. The unit value index for 1963 was 110 compared to 111 in 1958. Both indexes were computed on a basis of 1954 = 100.



# NONFERROUS ROLLING AND DRAWING: SIC 335

Value Added by Manufacture by State: 1963



# NONFERROUS FOUNDRIES: SIC 336

Value Added by Manufacture by State: 1963

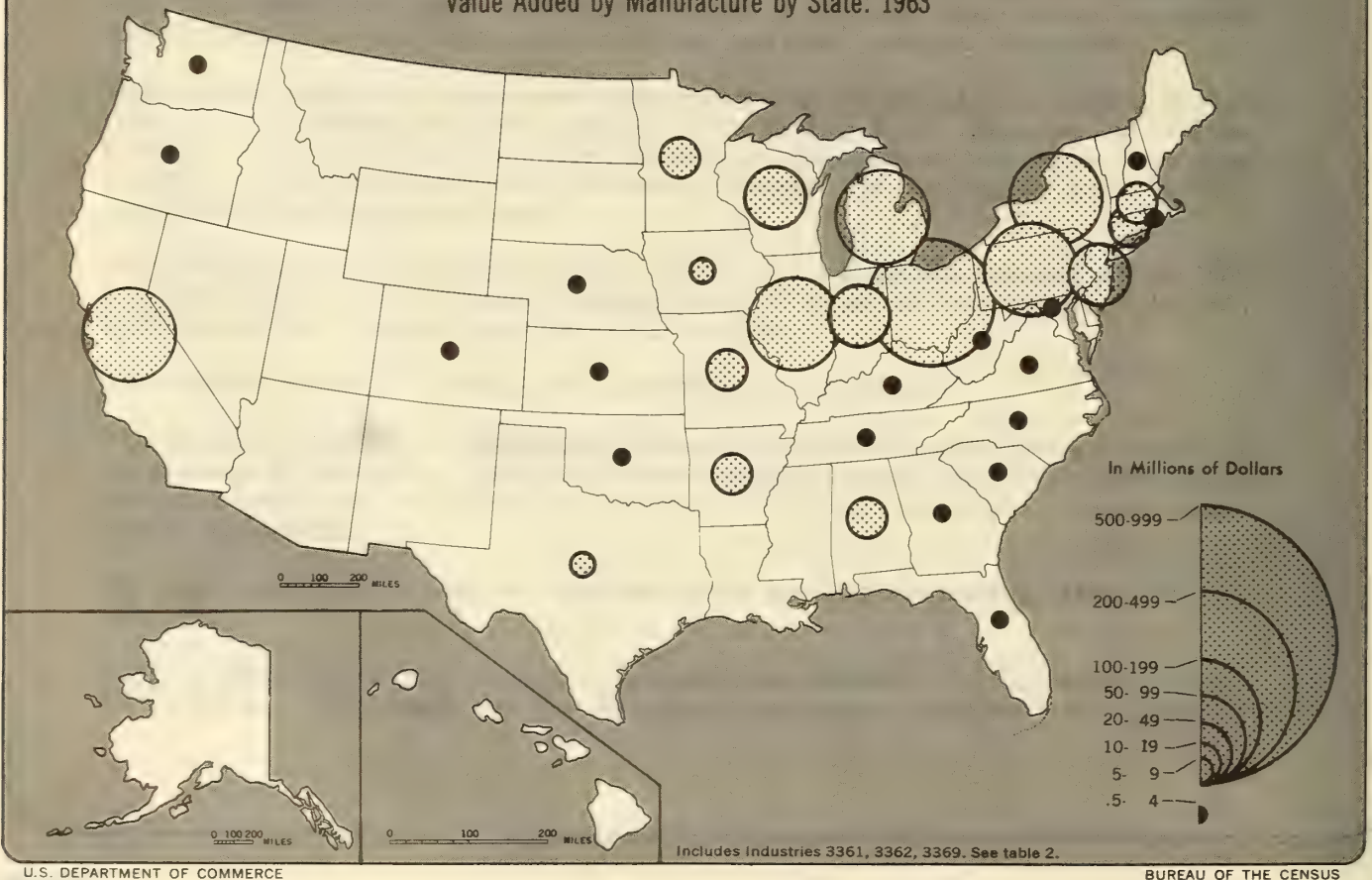




TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3351.—COPPER ROLLING AND DRAWING														
1963.....	81	112	92	38,949	260,320	31,481	65,746	200,171	478,393	1,188,548	1,657,526	43,462	90	91
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	41,223	269,614	32,404	67,202	192,235	476,731	1,177,344	1,654,423	39,407	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	39,417	250,060	30,854	62,931	175,081	473,525	1,017,457	1,479,605	(26,401)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	39,589	237,445	31,786	62,989	165,294	452,485	994,832	1,416,889	17,421	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	43,122	260,085	34,598	72,492	198,973	553,938	1,092,183	1,639,306	25,326	(NA)	(NA)
1958 (new).....	75	105	89	40,329	222,259	31,792	63,291	165,367	445,371	775,650	1,209,926	44,080	88	94
1958 (old) <sup>2</sup> .....	(NA)	103	90	41,283	227,697	32,641	65,116	170,205	458,328	819,162	1,267,722	30,757	89	89
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	42,559	224,258	34,148	66,279	167,647	459,292	920,696	1,385,642	42,123	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	45,485	239,589	36,760	75,622	182,937	522,448	1,368,856	1,876,612	28,964	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	45,009	231,737	36,618	77,566	178,686	513,129	1,288,475	1,788,036	32,874	(NA)	(NA)
1954.....	64	89	77	41,906	195,225	34,072	68,017	147,874	422,916	912,290	1,334,360	30,540	95	90
1947.....	56	79	72	53,891	166,148	45,946	93,741	134,019	302,687	761,346	1,064,033	21,617	(NA)	(NA)
1939 <sup>3</sup> .....	(NA)	57	(NA)	(NA)	(NA)	33,597	(NA)	48,288	135,642	214,503	350,145	(NA)	(NA)	(NA)
1963.....	81	112	92	38,949	260,320	31,481	65,746	200,171	478,393	1,188,548	1,657,526	43,462	90	91
Establishments with casting department <sup>4</sup> .....	(NA)	36	36	25,752	174,972	20,774	43,765	135,769	305,113	687,401	985,609	26,965	(NA)	(NA)
Establishments without casting department <sup>4</sup> .....	(NA)	76	56	13,197	85,348	10,707	21,981	64,402	173,280	501,147	671,917	16,497	(NA)	(NA)
INDUSTRY 3352.—ALUMINUM ROLLING AND DRAWING														
1963.....	166	212	153	54,263	376,647	42,750	89,868	278,469	721,171	1,524,841	2,196,439	81,282	85	93
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	54,432	343,649	42,796	89,649	252,826	611,241	1,423,470	2,016,613	76,588	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	52,100	321,342	40,726	86,251	233,497	564,573	1,338,321	1,881,669	60,020	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	52,646	310,465	40,896	86,124	224,027	536,779	1,230,249	1,737,734	76,053	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	55,379	323,355	44,347	93,911	239,686	615,176	1,366,497	1,939,580	80,988	(NA)	(NA)
1958 (new).....	145	185	129	46,879	272,168	36,443	75,323	199,643	537,086	1,057,370	1,562,381	131,817	91	92
1958 (old) <sup>2</sup> .....	(NA)	168	112	42,375	246,067	32,979	68,114	180,502	475,331	930,844	1,375,501	109,657	87	91
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	44,458	235,851	34,645	69,529	171,134	451,393	892,350	1,335,676	178,265	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	44,953	228,898	36,227	74,764	172,751	534,694	896,609	1,366,128	121,852	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	42,924	204,847	35,235	72,841	158,403	485,217	794,200	1,261,721	35,743	(NA)	(NA)
1954.....	77	94	70	36,803	164,938	29,795	60,652	125,617	352,349	537,180	877,033	21,402	92	93
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	39,064	165,888	32,292	64,562	127,278	366,830	591,003	957,833	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	31,483	128,143	25,749	53,471	99,506	283,093	444,272	929,365	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	29,268	106,144	23,910	49,051	82,313	255,188	404,455	659,643	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	27,303	90,328	22,693	46,781	71,719	208,045	359,873	567,918	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,116	67,721	17,542	34,662	50,445	143,669	252,069	345,738	(NA)	(NA)	(NA)
1947.....	15	29	27	27,365	73,665	22,786	45,334	57,544	150,697	254,069	404,766	9,897	(NA)	(NA)
1939 <sup>3</sup> .....	(NA)	13	(NA)	(NA)	(NA)	9,926	(NA)	14,848	34,331	81,012	115,343	(NA)	(NA)	(NA)
1963.....	166	212	153	54,263	376,647	42,750	89,868	278,469	721,171	1,524,841	2,196,439	81,282	85	93
Establishments operated by primary (integrated) producers <sup>5</sup> .....	(NA)	44	43	40,183	293,862	31,713	66,472	221,720	547,840	1,199,955	1,711,616	64,735	(NA)	(NA)
Establishments operated by nonintegrated producers <sup>5</sup> .....	(NA)	163	110	14,080	82,785	11,045	23,396	56,749	173,331	324,886	484,823	16,547	(NA)	(NA)
INDUSTRY 3356.—ROLLING AND DRAWING, N.E.C.														
1963.....	(NA)	125	67	17,375	117,454	12,275	25,367	74,052	250,589	405,011	640,962	22,154	84	81
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,580	124,556	12,919	26,910	82,147	216,562	480,425	687,713	24,640	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,411	119,969	12,707	25,967	74,689	222,859	452,341	660,990	22,560	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,504	110,716	12,154	24,420	67,671	185,239	423,091	608,175	14,141	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,764	108,813	12,608	25,672	68,224	216,887	395,030	596,196	(13,531)	(NA)	(NA)
1958.....	(NA)	143	73	16,571	94,713	11,467	22,542	57,446	174,633	306,634	486,308	14,984	77	82
1954 <sup>6</sup> .....	(NA)	105	67	11,954	57,481	8,798	18,277	36,788	126,018	278,275	403,359	13,564	(NA)	(NA)
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,272	58,535	9,470	20,720	41,141	132,190	( <sup>4</sup> )	( <sup>4</sup> )	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,784	45,701	7,539	16,173	31,864	98,291	( <sup>4</sup> )	( <sup>4</sup> )	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,101	40,686	7,199	15,386	28,901	100,352	( <sup>4</sup> )	( <sup>4</sup> )	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,241	36,908	7,563	16,373	27,164	73,787	( <sup>4</sup> )	( <sup>4</sup> )	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,224	22,780	4,704	9,349	14,580	48,781	( <sup>4</sup> )	( <sup>4</sup> )	(NA)	(NA)	(NA)
1947.....	41	54	(NA)	7,568	24,304	6,064	12,443	18,094	49,979	( <sup>4</sup> )	( <sup>4</sup> )	(NA)	(NA)	(NA)
1939 <sup>3</sup> .....	(NA)	31	(NA)	(NA)	(NA)	2,786	(NA)	4,398	15,224	( <sup>4</sup> )	( <sup>4</sup> )	(NA)	(NA)	(NA)
INDUSTRY 3357.—NONFERROUS WIRE DRAWING, ETC.														
1963.....	210	299	227	56,418	339,935	43,905	90,368	240,904	677,535	1,452,095	2,117,943	44,478	91	86
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	54,722	329,730	42,437	87,841	230,674	649,343	1,253,894	1,895,947	45,478	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	52,895	301,952	40,494	83,147	210,264	482,937	1,122,004	1,862,140	43,524	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	55,252	311,303	42,081	87,850	217,791	619,750	1,126,789	1,744,782	42,930	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	55,023	302,743	44,490	89,711	215,982	629,933	1,125,890	1,750,480	42,057	(NA)	(NA)
1958 <sup>7</sup> .....	217	278	182	51,900	271,910	39,762	81,711	190,988	530,105	941,347	1,465,999	35,359	95	83

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Companies (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Special- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3357.—NONFERROUS WIRE DRAWING, ETC.—Continued														
1963.....	210	299	227	56,418	339,935	43,905	90,368	240,904	677,535	1,452,095	2,117,943	44,478	91	86
Wire drawing establishments with rod mill, 335711.....	(NA)	32	32	9,258	57,042	7,537	15,672	43,801	133,749	368,424	498,611	7,643	(NA)	(NA)
Wire drawing establishments with neither rod mill nor insulating department 335712.....	(NA)	41	30	4,359	27,807	3,524	7,382	19,624	50,923	98,082	147,864	6,441	(NA)	(NA)
Wire drawing establishments without rod mill but with insulating department 335713.....	(NA)	72	70	30,347	187,718	23,241	47,731	132,664	350,789	735,320	1,083,475	24,064	(NA)	(NA)
Wire insulating establishments with neither rod mill nor wire drawing department 335714 <sup>8</sup> .....	(NA)	154	96	12,454	67,368	9,603	19,583	44,815	142,074	250,269	387,993	6,324	(NA)	(NA)
INDUSTRY 3361.—ALUMINUM CASTINGS														
1963.....	926	954	321	36,216	222,771	30,746	63,432	174,155	343,863	299,398	640,193	18,374	81	83
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	38,392	228,893	32,697	66,239	178,912	363,372	295,004	656,368	17,689	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	34,517	194,827	28,612	58,618	147,858	283,416	271,316	555,992	14,913	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	35,737	198,514	29,725	61,940	151,159	286,691	273,337	564,307	24,655	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	36,394	197,025	30,479	61,582	151,262	291,850	264,274	552,754	23,397	(NA)	(NA)
1958.....	934	955	283	30,045	158,915	24,626	48,683	119,166	225,686	198,560	422,041	12,220	79	81
INDUSTRY 3362.—BRASS, BRONZE, COPPER CASTINGS														
1963.....	535	549	193	15,341	86,350	12,835	26,052	65,095	144,092	144,433	287,534	5,394	84	78
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,829	97,613	14,633	28,777	71,024	155,233	150,157	304,380	5,298	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,173	89,020	13,991	27,258	64,819	149,576	137,588	283,832	3,843	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,809	85,690	13,641	26,551	62,258	137,386	133,383	274,488	4,908	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,388	81,015	13,799	27,340	61,939	131,703	136,591	267,367	4,539	(NA)	(NA)
1958.....	647	665	209	14,861	70,512	12,294	23,538	52,786	109,744	111,609	220,955	5,103	85	81
INDUSTRY 3369.—NONFERROUS CASTINGS, N.E.C.														
1963.....	386	391	165	17,686	102,929	14,845	30,320	78,447	168,530	134,318	302,731	6,803	78	75
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,779	90,380	13,218	27,145	69,432	149,768	110,485	259,438	5,780	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	14,574	81,744	11,953	24,226	60,862	127,825	94,058	222,190	4,106	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,079	92,640	14,221	28,718	69,036	150,157	108,993	260,157	7,830	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,309	98,083	15,477	31,343	74,685	151,623	116,862	267,699	6,655	(NA)	(NA)
1958.....	337	345	136	17,253	89,239	14,330	27,617	66,339	135,311	98,678	234,649	5,013	78	77
INDUSTRIES 3361, 3362, 3369.—NONFERROUS FOUNDRIES (OLD SIC 3361)														
1963 <sup>9</sup> .....	(NA)	1,894	679	69,243	412,050	58,426	119,804	317,697	656,485	578,149	1,230,458	30,571	(NA)	(NA)
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	72,000	416,886	60,548	122,161	319,368	668,373	555,646	1,220,186	28,767	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	66,264	365,591	54,556	110,102	273,539	560,817	502,962	1,062,014	22,862	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	69,625	376,844	57,587	117,209	282,453	574,234	515,713	1,098,952	37,393	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	71,091	376,123	59,755	120,265	287,886	575,176	517,727	1,087,820	34,591	(NA)	(NA)
1958.....	(NA)	1,965	628	62,159	318,666	51,250	99,838	238,291	470,741	408,847	877,645	22,336	(NA)	(NA)
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	78,328	379,506	66,424	132,187	294,301	577,240	502,766	1,080,396	39,025	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	82,084	393,563	69,900	141,448	305,518	608,181	578,225	1,174,240	38,110	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	81,950	377,569	70,232	141,128	295,741	584,846	554,202	1,126,816	26,011	(NA)	(NA)
1954.....	1,863	1,920	611	73,487	327,906	61,573	124,041	251,374	472,431	405,640	884,576	24,779	90	92
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	83,703	365,263	71,225	147,492	294,570	572,377	480,511	1,052,888	31,499	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	74,154	308,760	63,107	130,347	248,034	466,939	435,566	902,416	21,777	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	71,498	280,672	61,413	125,288	223,728	437,592	463,455	901,047	23,093	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	65,182	231,180	55,615	111,959	183,129	371,634	336,865	708,499	16,197	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	56,504	189,303	47,402	97,074	144,355	280,715	228,073	505,017	11,829	(NA)	(NA)
1947.....	1,675	1,724	551	66,798	203,314	58,609	(NA)	166,697	300,628	272,562	573,190	19,017	93	92
1939 <sup>2</sup> .....	(NA)	776	(NA)	(NA)	(NA)	23,362	(NA)	32,444	67,590	65,092	132,682	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: **All employees:** For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). **Production workers:** For 1947 and prior years figures represent an average of 12 monthly figures. **Value added:** Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. **Cost of materials:** Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. **Value of shipments:** Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Footnotes continued on next page.

TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Footnotes for Table 1-33D-Continued

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so that the industry is not comparable. The 1957 and earlier figures are on the old SIC definition of the industry.

<sup>3</sup>No comparable figures are available for earlier years.

<sup>4</sup>The subindustry separation for industry 3351 is based on the presence or lack of presence of the department described as "casting (except foundry)." See table 9A.

<sup>5</sup>Integrated producers represent companies which operate primary aluminum reduction facilities.

<sup>6</sup>Data for 1954 have been revised to include establishments originally classified in other industries. Accordingly, data for 1953 and earlier years are not comparable with 1954 and 1958. Selected data for 1954 and 1958 on a basis comparable with earlier years are as follows: number of establishments, 98; total employment, 10,381; and unadjusted value added by manufacture, \$99,907 thousand. Since the effect of this revision has more significance on the cost of materials and value of shipments, data for these items are not shown for 1953 and earlier years.

<sup>7</sup>Due to revision in the Standard Industrial Classification in 1957, data prior to 1958 are not available.

<sup>8</sup>Prior to 1958, these establishments were treated as a separate industry, SIC 3631, Insulated Wire and Cable. Selected data are available for 1958 as follows: Total number of establishments, 172; number of establishments with 20 or more employees, 91; number of employees, 17,105; adjusted value added by manufacture, \$154,248 thousand.

<sup>9</sup>The three industries shown above were a single industry in 1957 and earlier years. They are shown combined so that historical data may be presented.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3351.—COPPER ROLLING AND DRAWING													
Total.....	112	92	38,949	260,320	31,481	65,746	200,171	478,393	1,188,548	1,657,526	43,462	40,329	445,371
New England.....	33	30	12,107	81,676	9,829	20,145	63,539	145,184	308,045	454,718	9,430	13,653	142,116
Connecticut.....	26	24	10,422	71,854	8,509	17,576	56,251	126,890	282,503	411,084	9,296	11,942	124,971
Middle Atlantic....	39	28	10,406	68,703	8,242	17,275	51,297	126,704	378,695	503,131	12,847	11,146	118,458
New York.....	9	7	3,517	22,102	2,820	5,450	16,772	45,859	137,313	182,072	1,415	( <sup>2</sup> )	( <sup>2</sup> )
New Jersey.....	15	10	3,024	19,960	2,477	5,134	15,862	29,350	151,542	181,551	1,881	( <sup>2</sup> )	( <sup>2</sup> )
Pennsylvania.....	15	11	3,865	26,641	2,945	6,691	18,663	51,495	89,840	139,508	9,551	5,122	46,538
North Central, South, and West....	40	34	16,436	109,941	13,410	28,326	85,335	206,505	501,808	699,677	21,185	15,530	184,797
Ohio.....	6	6	2,767	17,520	2,407	4,820	14,542	34,317	69,008	102,666	1,273	2,731	30,246
Illinois.....	5	4	3,688	24,368	2,976	6,254	18,112	33,382	75,940	106,243	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Michigan.....	11	10	4,069	27,790	3,285	7,128	21,292	58,361	101,254	156,132	1,924	4,043	45,859
California.....	6	5	1,259	8,555	993	2,064	6,483	15,964	33,029	47,601	309	1,105	10,313
Subindustry 3351-21.—Copper Rolling and Drawing—ESTABLISHMENTS WITH CASTING DEPARTMENTS <sup>3</sup>													
Total.....	36	36	25,752	174,972	20,774	43,765	135,769	305,113	687,401	985,609	26,965	(NA)	(NA)
New England.....	14	14	7,914	54,207	6,395	13,044	41,996	94,378	209,171	304,106	4,815	(NA)	(NA)
Middle Atlantic....	7	7	5,350	35,579	4,260	9,232	27,470	56,610	177,626	232,619	3,482	(NA)	(NA)
North Central, South, and West....	15	15	12,488	85,186	10,119	21,489	66,303	154,125	300,604	448,884	18,668	(NA)	(NA)
Subindustry 3351-22.—Copper Rolling and Drawing—ESTABLISHMENTS WITHOUT CASTING DEPARTMENTS <sup>3</sup>													
Total.....	76	56	13,197	85,348	10,707	21,981	64,402	173,280	501,147	671,917	16,497	(NA)	(NA)
New England.....	19	16	4,193	27,469	3,434	7,101	21,543	50,806	98,874	150,612	4,615	(NA)	(NA)
Middle Atlantic....	32	21	5,056	33,124	3,982	8,043	23,827	70,094	201,069	270,512	9,365	(NA)	(NA)
North Central, South, and West....	25	19	3,948	24,755	3,291	6,837	19,032	52,380	201,204	250,793	2,517	(NA)	(NA)
INDUSTRY 3352.—ALUMINUM ROLLING AND DRAWING													
Total.....	212	153	54,263	376,647	42,750	89,868	278,469	721,171	1,524,841	2,196,439	81,282	46,879	537,086
New England.....	11	10	549	3,784	439	946	2,392	7,337	11,786	18,912	482	471	4,992
Middle Atlantic....	40	31	9,146	62,634	6,765	13,793	41,667	119,463	200,715	314,100	10,423	8,997	87,038
New York.....	15	12	3,207	20,651	2,423	4,910	14,211	48,613	92,830	141,958	2,041	2,978	32,174
New Jersey.....	15	11	2,139	14,723	1,602	3,250	9,749	30,806	33,352	61,344	1,698	1,991	20,921
Pennsylvania.....	10	8	3,800	27,260	2,740	5,633	17,707	40,044	74,533	110,798	6,714	4,028	33,943
North Central.....	78	56	17,526	125,063	13,409	28,451	89,911	246,082	563,365	796,480	25,238	13,320	182,165
Ohio.....	23	19	4,224	28,588	3,175	6,535	20,282	56,206	194,883	251,574	7,017	3,138	56,854
Illinois.....	15	9	4,479	32,346	3,513	7,294	24,316	50,035	134,722	182,966	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Michigan.....	21	15	2,381	14,771	1,822	3,704	9,926	22,584	41,693	64,643	1,290	2,319	20,915
South Atlantic....	26	18	6,657	42,941	5,312	11,108	32,049	85,451	228,490	310,113	14,710	24,091	262,891
East South Central.	15	11	9,602	68,601	8,111	17,013	56,342	139,471	300,193	422,807	18,606		
West South Central.	7	6	1,079	6,040	854	1,899	4,455	10,884	23,644	34,168	1,141		
West.....	35	21	9,704	67,584	7,820	16,658	51,653	112,483	196,648	299,859	10,667	(2)	(2)
California.....	27	16	5,594	38,327	4,389	10,043	28,966	70,865	80,372	148,772	5,191		
INDUSTRY 3356.—ROLLING AND DRAWING, N.E.C.													
Total.....	125	67	17,375	117,454	12,275	25,367	74,052	250,589	405,011	640,962	22,154	16,571	174,633
New England.....	21	14	1,767	10,066	1,367	2,914	6,791	22,881	71,066	92,465	1,174	1,686	16,645
Massachusetts....	9	7	890	4,671	695	1,511	3,226	7,720	22,080	29,785	484	762	6,780
Middle Atlantic....	41	20	4,049	27,817	2,661	5,491	16,172	61,300	124,287	182,287	2,327	4,198	37,663
New York.....	23	10	800	5,439	559	1,157	3,270	15,186	52,572	66,479	441	(2)	(2)
New Jersey.....	10	6	1,562	10,400	1,027	1,989	6,353	19,616	53,527	70,892	626	(2)	(2)
Pennsylvania.....	8	4	1,687	11,978	1,075	2,345	6,549	26,498	18,188	44,916	1,260	2,069	16,706
North Central, South, and West....	63	33	11,559	79,571	8,247	16,962	51,089	166,408	209,658	366,210	18,653	10,687	120,325
Ohio.....	7	5	2,614	18,265	1,665	3,337	10,950	33,933	43,386	72,842	1,775	(2)	(2)
Illinois.....	10	5	1,326	7,804	945	1,545	4,761	18,339	30,599	50,559	362	1,540	17,440
Michigan.....	9	7	792	6,367	573	1,193	3,980	13,547	17,716	31,080	688	(2)	(2)

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3357.—NONFERROUS WIRE DRAWING, ETC.													
Total.....	299	227	56,418	339,935	43,905	90,368	240,904	677,535	1,452,095	2,117,943	44,478	51,900	530,105
New England.....	78	64	16,336	86,455	12,958	25,727	59,952	158,884	247,945	400,875	10,223	15,174	133,528
New Hampshire.....	4	4	349	2,125	231	446	1,036	4,152	6,262	9,468	280	( <sup>2</sup> )	( <sup>2</sup> )
Vermont.....	3	3	405	2,189	299	596	1,293	3,092	7,322	10,953	222	( <sup>2</sup> )	( <sup>2</sup> )
Massachusetts.....	31	26	6,198	31,475	4,900	9,352	21,395	52,234	70,813	122,046	3,836	5,084	40,867
Rhode Island.....	14	12	5,385	27,055	4,480	9,034	20,194	49,158	100,336	146,133	3,381	5,030	42,137
Connecticut.....	26	19	3,999	23,611	3,048	6,299	16,034	50,248	63,212	112,275	2,504	4,061	38,619
Middle Atlantic.....	87	67	18,924	117,557	14,342	29,532	82,153	201,141	481,223	674,554	15,210	19,794	206,667
New York.....	38	26	9,522	60,362	7,241	14,566	41,995	101,557	237,143	339,830	7,308	8,439	84,104
New Jersey.....	35	28	6,977	44,902	5,094	10,762	30,967	81,193	204,646	278,220	6,503	8,711	99,712
Pennsylvania.....	14	13	2,425	12,293	2,007	4,204	9,191	18,391	39,434	56,504	1,399	2,644	22,851
East North Central..	65	51	12,588	79,654	9,943	20,904	58,807	186,180	428,379	611,451	8,145	( <sup>2</sup> )	( <sup>2</sup> )
Indiana.....	14	12	5,403	34,666	4,446	9,384	27,554	86,615	214,050	298,858	2,698	4,901	54,698
Illinois.....	30	24	4,379	28,362	3,213	6,979	18,874	74,830	147,589	220,395	3,543	3,020	40,476
West North Central..	9	5	1,633	11,199	1,264	2,792	8,172	34,963	72,790	107,761	1,466	( <sup>2</sup> )	( <sup>2</sup> )
South.....	22	16	4,355	29,178	3,415	7,222	21,101	64,886	151,890	221,529	6,706	3,370	41,404
Texas.....	5	4	653	3,712	569	1,323	3,067	13,415	26,869	39,958	810	420	5,556
Pacific.....	38	24	2,582	15,892	1,983	4,191	10,719	31,481	69,868	101,773	2,728	2,674	24,810
Subindustry 3357-11.—Nonferrous Wire Drawing, Etc.—WIRE DRAWING ESTABLISHMENTS WITH ROD MILL													
Total.....	32	32	9,258	57,042	7,537	15,672	43,801	133,749	368,424	498,611	7,643	(NA)	(NA)
New England.....	5	5	2,443	12,410	2,005	4,260	9,482	25,158	45,941	70,267	2,925	(NA)	(NA)
Middle Atlantic.....	10	10	2,211	13,185	1,841	3,804	10,374	27,167	74,879	100,941	2,092	(NA)	(NA)
North Central and West.....	17	17	4,604	31,447	3,691	7,608	23,945	81,424	247,604	327,403	2,626	(NA)	(NA)
Indiana.....	6	6	1,745	12,255	1,455	3,031	9,803	36,855	120,979	156,672	959	(NA)	(NA)
Subindustry 3357-12.—Nonferrous Wire Drawing, Etc.—WIRE DRAWING ESTABLISHMENTS WITHOUT ROD MILL OR INSULATING DEPARTMENT													
Total.....	41	30	4,359	27,807	3,524	7,382	19,624	50,923	98,082	147,864	6,447	(NA)	(NA)
New England.....	8	5	727	4,513	605	1,269	3,314	8,388	6,468	14,917	547	(NA)	(NA)
Middle Atlantic.....	15	13	2,414	15,087	1,924	4,041	10,690	25,786	57,464	83,148	3,399	(NA)	(NA)
New York.....	8	8	1,145	6,893	945	1,948	5,073	12,423	20,370	32,398	402	(NA)	(NA)
North Central, South, and West.....	18	12	1,218	8,207	995	2,072	5,620	16,749	34,150	49,799	2,501	(NA)	(NA)
Subindustry 3357-13.—Nonferrous Wire Drawing, Etc.—WIRE DRAWING ESTABLISHMENTS WITHOUT ROD MILL BUT WITH INSULATING DEPARTMENT													
Total.....	72	70	30,347	187,718	23,241	47,731	132,664	350,789	735,320	1,083,475	24,064	(NA)	(NA)
New England.....	23	22	8,403	46,900	6,601	13,085	32,214	82,311	136,818	215,488	5,213	(NA)	(NA)
Rhode Island.....	8	8	4,059	20,948	3,398	6,950	15,661	34,653	66,229	98,306	2,117	(NA)	(NA)
Connecticut.....	7	6	1,511	9,474	1,112	2,240	6,302	18,515	26,960	45,002	780	(NA)	(NA)
Middle Atlantic.....	22	22	11,831	76,319	8,711	17,916	52,562	113,243	284,184	395,230	8,443	(NA)	(NA)
New York.....	9	9	7,203	46,387	5,439	10,810	32,262	73,086	178,756	253,660	6,163	(NA)	(NA)
North Central.....	17	16	6,407	38,321	5,151	11,008	29,639	100,905	189,158	286,989	4,836	(NA)	(NA)
Illinois.....	7	6	1,614	9,836	1,283	2,788	7,421	28,976	51,786	80,144	1,710	(NA)	(NA)
South and West.....	10	10	3,706	26,170	2,778	5,722	18,249	54,330	125,160	185,768	5,572	(NA)	(NA)
Subindustry 3357-14.—Nonferrous Wire Drawing, Etc.—ESTABLISHMENTS WITHOUT WIRE DRAWING DEPARTMENTS													
Total.....	154	95	12,454	67,368	9,603	19,583	44,815	142,074	250,269	387,993	6,324	(NA)	(NA)
New England.....	42	32	4,763	22,624	3,747	7,113	14,942	43,027	58,718	100,203	1,538	(NA)	(NA)
Massachusetts.....	23	18	2,278	9,653	1,838	3,303	6,423	15,162	24,520	39,755	312	(NA)	(NA)
Connecticut.....	12	8	1,336	7,641	1,014	2,114	5,193	18,727	21,359	39,312	749	(NA)	(NA)
Middle Atlantic.....	40	22	2,468	12,966	1,866	3,771	8,527	34,945	64,696	95,235	1,276	(NA)	(NA)
New Jersey.....	18	12	1,175	6,355	886	1,747	4,390	19,531	41,592	56,760	413	(NA)	(NA)
North Central.....	34	20	2,691	17,079	1,951	4,236	10,798	31,422	64,094	97,078	1,272	(NA)	(NA)
Illinois.....	14	11	1,238	7,621	852	1,870	4,019	15,524	17,860	33,872	546	(NA)	(NA)
South.....	11	7	1,075	5,804	926	2,085	4,638	16,683	38,822	55,351	1,181	(NA)	(NA)
Pacific.....	27	14	1,457	8,895	1,113	2,378	5,910	15,997	23,939	40,126	1,057	(NA)	(NA)

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3361.—ALUMINUM CASTINGS													
Total.....	954	321	36,216	222,771	30,746	63,432	174,155	343,863	299,398	640,193	18,374	30,045	225,686
New England.....	76	18	2,131	12,081	1,840	3,761	9,205	19,117	11,863	31,020	728	1,677	10,949
Massachusetts....	36	7	624	3,386	544	1,121	2,565	5,322	3,052	8,371	232	( <sup>2</sup> )	( <sup>2</sup> )
Connecticut.....	30	8	1,194	7,253	1,018	2,119	5,414	10,801	7,939	18,770	431	1,118	7,587
Middle Atlantic....	153	52	6,964	45,070	5,826	12,033	35,351	68,845	51,112	119,734	2,733	6,093	47,116
New York.....	57	25	3,284	21,535	2,700	5,658	16,848	33,364	29,341	62,465	1,477	2,223	17,215
New Jersey.....	38	11	1,349	9,199	1,141	2,384	7,163	12,389	8,707	21,201	632	1,269	9,389
Pennsylvania.....	58	16	2,331	14,336	1,985	3,991	11,340	23,092	13,064	36,068	624	2,601	20,512
East North Central.	354	137	17,551	111,384	14,907	30,762	86,850	166,561	155,024	318,815	9,770	14,562	110,132
Ohio.....	122	40	7,301	47,902	6,131	12,712	37,392	77,546	59,531	135,593	2,593	5,986	45,950
Indiana.....	31	16	2,349	17,212	1,973	4,349	13,526	22,614	33,359	55,609	3,741	1,515	9,941
Illinois.....	90	35	3,424	19,700	2,899	5,728	14,847	28,167	23,454	51,169	1,461	2,407	17,863
Michigan.....	73	25	2,163	13,100	1,867	3,748	10,300	18,911	20,703	39,503	936	2,908	24,974
Wisconsin.....	38	21	2,314	13,470	2,037	4,225	10,785	19,323	17,977	36,941	1,039	1,746	11,404
West North Central.	68	32	2,522	13,454	2,234	4,661	11,061	21,126	16,458	37,304	784	2,544	17,792
Minnesota.....	18	11	872	5,202	788	1,693	4,378	6,709	6,319	12,963	229	678	4,584
Iowa.....	15	4	250	1,287	209	459	999	2,529	1,548	4,047	116	327	2,011
Missouri.....	24	12	1,152	5,827	1,013	2,064	4,774	9,671	7,013	16,500	288	1,443	10,572
South Atlantic.....	49	10	768	3,386	663	1,337	2,609	4,962	3,616	8,543	406	471	2,538
Maryland.....	3	1	125	634	97	188	422	956	388	1,370	(D)	( <sup>2</sup> )	( <sup>2</sup> )
North Carolina...	7	2	114	432	101	203	359	462	502	925	17	( <sup>2</sup> )	( <sup>2</sup> )
Florida.....	16	1	131	478	120	214	406	691	750	1,405	55	149	961
East South Central.	21	5	1,387	10,017	1,154	2,505	7,940	15,753	22,282	38,143	1,830	643	3,208
West South Central.	54	15	1,087	5,600	910	1,839	4,260	11,619	12,806	24,282	939	807	6,513
Arkansas.....	7	6	512	3,111	411	844	2,321	7,265	9,165	16,256	760	302	3,067
Texas.....	40	7	452	1,879	392	771	1,484	3,330	3,076	6,437	167	440	2,984
Mountain.....	15	1	107	497	91	171	387	714	535	1,255	16	126	879
Pacific.....	164	51	3,699	21,282	3,121	6,363	16,492	35,166	25,702	61,097	1,168	3,122	26,559
Oregon.....	9	3	169	976	154	310	902	1,498	1,402	2,888	34	( <sup>2</sup> )	( <sup>2</sup> )
California.....	150	47	3,463	19,842	2,908	5,916	15,196	32,932	23,543	56,718	1,107	2,998	25,683
INDUSTRY 3362.—BRASS, BRONZE, COPPER CASTINGS													
Total.....	549	193	15,341	86,350	12,835	26,052	65,095	144,092	144,433	287,534	5,394	14,861	109,744
New England.....	59	23	1,473	7,368	1,263	2,482	5,712	11,994	11,299	23,222	414	1,496	10,377
Massachusetts....	27	11	791	3,964	681	1,307	3,152	6,795	7,044	13,821	240	766	4,919
Connecticut.....	21	8	435	2,254	362	740	1,685	3,387	2,733	6,064	132	373	2,660
Middle Atlantic....	150	49	5,162	29,088	4,335	8,885	21,836	46,689	39,997	86,214	1,191	4,480	32,167
New York.....	53	18	1,247	6,929	1,071	2,108	5,542	11,699	11,222	22,798	146	1,571	10,865
New Jersey.....	32	10	758	4,428	603	1,204	3,089	7,053	5,895	12,594	148	638	4,852
Pennsylvania.....	65	21	3,157	17,731	2,661	5,573	13,205	27,937	22,880	50,822	897	2,271	16,450
East North Central.	191	73	5,459	33,580	4,505	9,139	24,905	54,673	56,331	110,684	2,350	5,712	44,471
Ohio.....	57	25	1,624	9,440	1,321	2,747	7,073	15,946	15,695	32,054	749	1,977	13,948
Illinois.....	54	21	1,302	7,709	1,107	2,247	5,999	11,430	12,027	23,422	523	1,442	10,515
Michigan.....	36	12	1,066	7,444	883	1,764	5,471	13,069	13,375	25,932	542	982	10,860
West North Central.	29	12	714	3,611	597	1,215	2,838	8,416	10,285	18,669	365	848	6,803
Missouri.....	12	4	243	1,311	202	409	1,016	3,038	4,273	7,312	160	522	5,069
Nebraska.....	4	4	256	1,270	207	415	943	3,855	4,316	8,025	147	( <sup>2</sup> )	( <sup>2</sup> )
South.....	44	15	1,289	5,756	1,079	2,224	4,336	10,613	12,288	22,986	715	769	4,803
Alabama.....	3	3	125	573	107	212	419	997	1,361	2,413	14	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	11	5	253	1,314	213	488	978	2,140	3,236	5,388	113	183	1,263
Mountain.....	7	3	179	844	160	316	693	918	1,216	2,124	24	1,556	11,123
Pacific.....	69	18	1,065	6,103	896	1,791	4,775	10,789	13,017	23,635	335		9,505
California.....	55	17	978	5,583	821	1,648	4,329	9,746	11,458	20,997	275		1,212

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
	INDUSTRY 3369.—NONFERROUS CASTINGS, N.E.C.												
Total.....	391	165	17,686	102,929	14,845	30,320	78,447	168,530	134,318	302,731	6,803	17,253	135,311
New England.....	34	9	529	2,711	449	923	1,989	4,478	3,108	7,585	259	( <sup>2</sup> )	( <sup>2</sup> )
Massachusetts.....	13	4	198	1,027	166	342	758	1,627	1,146	2,768	101	( <sup>2</sup> )	( <sup>2</sup> )
Connecticut.....	11	5	245	1,280	214	451	970	2,224	1,587	3,819	89	319	2,416
Middle Atlantic.....	98	37	3,810	21,224	3,181	6,541	16,065	33,126	18,760	52,270	938	( <sup>2</sup> )	( <sup>2</sup> )
New York.....	53	19	1,648	8,759	1,366	2,852	6,312	14,833	8,674	23,708	444	1,613	10,695
New Jersey.....	29	13	1,677	9,737	1,386	2,802	7,482	14,494	7,288	21,874	440	( <sup>2</sup> )	( <sup>2</sup> )
Pennsylvania.....	16	5	485	2,728	429	887	2,271	3,799	2,798	6,688	54	( <sup>2</sup> )	( <sup>2</sup> )
East North Central..	144	75	9,416	57,221	7,968	16,229	43,759	92,363	85,858	177,385	3,835	9,563	78,280
Ohio.....	28	13	1,689	9,230	1,386	2,836	6,800	15,906	14,848	30,549	419	2,066	16,176
Illinois.....	49	23	2,828	17,881	2,454	5,170	14,294	28,101	25,824	53,481	1,403	3,168	23,720
Michigan.....	56	31	3,965	24,275	3,344	6,674	18,366	38,301	39,426	77,439	1,578	3,639	33,217
West North Central..	21	9	938	5,146	787	1,565	3,942	8,025	7,577	15,590	430	754	6,702
Missouri.....	10	4	390	2,230	323	626	1,776	3,205	3,615	6,810	155	597	5,374
South.....	34	9	650	2,961	554	1,074	2,298	4,774	3,361	8,148	323	317	1,595
Florida.....	7	2	150	481	124	210	386	563	529	1,143	52	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	10	2	214	1,132	182	360	896	1,748	1,214	2,964	169	216	1,094
Mountain.....	4	-	15	65	12	24	53	149	103	252	11	1,844	16,001
Pacific.....	56	26	2,328	13,601	1,894	3,964	10,341	25,615	15,551	41,501	1,007		
California.....	52	25	2,241	13,130	1,815	3,809	9,919	24,575	15,142	40,067	910		

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3351, Copper Rolling and Drawing: New England—Massachusetts, 2 (500-999); Rhode Island, 5 (500-999); East North Central—Indiana, 2 (1,000-2,499); Wisconsin, 3 (1,411); West North Central—Minnesota, 2 (20-99); South Atlantic—Maryland, 1 (1,000-2,499); West Virginia, 1 (1-19); East South Central—Tennessee, 1 (20-99); Alabama, 1 (500-999); Mountain—Montana, 1 (100-249).

SIC 3351-21, Establishments with casting departments: New England—Massachusetts, 1 (100-249); Rhode Island, 2 (500-999); Connecticut, 11 (5,000-9,999); Middle Atlantic—New York, 1 (1,000-2,499); New Jersey, 3 (1,000-2,499); Pennsylvania, 3 (1,000-2,499); East North Central—Ohio, 1 (1,000-2,499); Indiana, 1 (1,000-2,499); Illinois, 4 (2,500-4,999); Michigan, 3 (1,000-2,499); Wisconsin, 1 (1,000-2,499); South Atlantic—Maryland, 1 (1,000-2,499); East South Central—Alabama, 1 (500-999); Pacific—California, 3 (500-999).

SIC 3351-22, Establishments without casting departments: New England—Massachusetts, 1 (500-999); Rhode Island, 3 (100-249); Connecticut, 15 (2,500-4,999); Middle Atlantic—New York, 8 (1,000-2,499); New Jersey, 12 (500-999); Pennsylvania, 12 (1,000-2,499); East North Central—Ohio, 5 (1,000-2,499); Indiana, 1 (20-99); Illinois, 1 (1-19); Michigan, 8 (1,000-2,499); Wisconsin, 2 (100-249); West North Central—Minnesota, 2 (20-99); South Atlantic—West Virginia—1 (1-19); East South Central—Tennessee, 1 (20-99); Mountain—Montana, 1 (100-249); Pacific—California, 3 (250-499);

SIC 3352, Aluminum Rolling and Drawing: New England—New Hampshire, 1 (20-99); Massachusetts, 5 (100-249); Rhode Island, 1 (20-99); Connecticut, 4 (291); East North Central—Indiana, 11 (2,992); Wisconsin, 1 (100-249); West North Central—Iowa, 2 (2,500-4,999); Missouri, 2 (250-499); Nebraska, 1 (1-19); Kansas, 2 (20-99); South Atlantic—Maryland, 2 (500-999); Virginia, 6 (1,000-2,499); West Virginia, 2 (1,000-2,499); North Carolina, 4 (818); South Carolina, 1 (20-99); Georgia, 4 (835); Florida, 7 (488); East South Central—Kentucky, 7 (1,000-2,499); Tennessee, 3 (4,773); Alabama, 3 (3,221); Mississippi, 2 (100-249); West South Central—Arkansas, 2 (250-499); Texas, 5 (500-999); Mountain—Arizona, 4 (1,000-2,499); Pacific—Washington, 4 (2,500-4,999).

SIC 3356, Rolling and Drawing, N.E.C.: New England—Maine, 1 (100-249); Rhode Island, 5 (100-249); Connecticut, 6 (538); East North Central—Indiana, 6 (2,500-4,999); Wisconsin, 1 (1-19); South Atlantic—Virginia, 1 (1-19); West Virginia, 1 (1,000-2,499); North Carolina, 3 (150); Georgia, 3 (20-99); Florida, 2 (20-99); East South Central—Tennessee, 1 (1-19); Alabama, 1 (20-99); West South Central—Oklahoma, 1 (20-99); Texas, 5 (100-249); Mountain—Colorado, 1 (1-19); Arizona, 1 (1-19); Nevada, 1 (500-999); Pacific—California, 9 (250).

SIC 3357, Nonferrous Wire Drawings, Etc.: East North Central—Ohio, 9 (250-499); Michigan, 11 (1,000-2,499); West North Central—Minnesota, 1 (1-19); Iowa, 1 (100-249); Missouri, 5 (500-999); Nebraska, 2 (500-999); South Atlantic—Delaware, 1 (20-99); Maryland, 3 (2,601); West Virginia, 1 (1-19); North Carolina 3 (381); Georgia, 4 (359); Florida, 1 (100-249); East South Central—Kentucky, 1 (20-99); Tennessee, 1 (20-99); Alabama, 1 (1-19); West South Central—Oklahoma, 1 (1-19); Pacific—Washington, 2 (100-249); Oregon, 1 (1-19); California, 35 (2,333).

SIC 3357-11, Wire drawing with rod mill: New England—Massachusetts, 1 (1,000-2,499); Rhode Island, 2 (500-999); Connecticut, 2 (500-999); Middle Atlantic—New York, 2 (250-499); New Jersey, 4 (1,000-2,499); Pennsylvania, 4 (500-999); East North Central—Ohio, 1 (100-249); Illinois, 5 (1,000-2,499); Michigan, 3 (500-999); West North Central—Missouri, 1 (250-499); Pacific—California, 1 (1,000-2,499).

SIC 3357-12, Wire drawing with neither rod mill nor insulating department: New England—Massachusetts, 2 (250-499); Rhode Island, 1 (1-19); Connecticut, 5 (250-499); Middle Atlantic—New Jersey, 4 (500-999); Pennsylvania, 3 (250-499); East North Central—Illinois, 4 (100-249); Michigan, 1 (1-19); Wisconsin, 1 (250-499); West North Central—Iowa, 1 (100-249); South Atlantic—North Carolina, 1 (1-19); Georgia, 3 (100-249); East South Central—Kentucky, 1 (20-99); West South Central—Texas, 1 (1-19); Pacific—Washington, 1 (100-249); California, 4 (100-249).

SIC 3357-13, Wire drawing without rod mill but with insulating department: New England—New Hampshire, 1 (20-99); Vermont, 2 (100-249); Massachusetts, 5 (2,500-4,999); Middle Atlantic—New Jersey, 9 (2,500-4,999); Pennsylvania, 4 (500-999); East North Central—Ohio, 1 (20-99); Indiana, 4 (2,500-4,999); Michigan, 4 (1,000-2,499); West North Central—Nebraska, 1 (500-999); South Atlantic—Maryland, 1 (1,000-2,499); North Carolina, 1 (250-499); Georgia, 1 (100-249); Florida, 1 (100-249); West South Central—Texas, 1 (100-249); Pacific—California, 5 (500-999).

SIC 3357-14, Establishments without wire drawing department: New England—New Hampshire, 3 (250-499); Vermont, 1 (100-249); Rhode Island, 3 (500-999); Middle Atlantic—New York, 19 (500-999); Pennsylvania, 3 (250-499); East North Central—Ohio, 7 (100-249); Indiana, 4 (500-999); Michigan, 3 (100-249); West North Central—Minnesota, 1 (1-19); Missouri, 4 (250-499); Nebraska, 1 (1-19); South Atlantic—Delaware, 1 (20-99); Maryland, 2 (250-499); West Virginia, 1 (1-19); North Carolina, 1 (20-99); East South Central—Tennessee, 1 (20-99); Alabama, 1 (1-19); West South Central—Oklahoma, 1 (1-19); Texas, 3 (500-999); Pacific—Washington, 1 (100-249); Oregon, 1 (1-19); California, 25 (1,000-2,499).

SIC 3361, Aluminum Castings: New England—New Hampshire, 3 (231); Rhode Island, 7 (20-99); West North Central—Nebraska, 3 (20-99); Kansas, 8 (100-249); South Atlantic—Delaware, 2 (1-19); Virginia, 3 (100-249); South Carolina, 5 (20-99); Georgia, 13 (100-249); East South Central—Kentucky, 4 (250-499); Tennessee, 12 (20-99); Alabama, 4 (500-999); Mississippi, 1 (1-19); West South Central—Louisiana, 1 (1-19); Oklahoma, 6 (100-249); Mountain—Colorado, 10 (20-99); New Mexico, 2 (1-19); Arizona, 2 (1-19); Utah, 1 (1-19); Pacific—Washington, 5 (20-99).

Footnotes continued on next page.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

## Footnotes for Table 2-33D—Continued

SIC 3362, Brass, Bronze, Copper Castings: New England—Maine, 3 (20-99); New Hampshire, 2 (100-249); Rhode Island, 6 (20-99); East North Central—Indiana, 20 (411); Wisconsin, 24 (1,056); West North Central—Minnesota, 6 (119); Iowa, 4 (20-99); Kansas, 3 (20-99); South Atlantic—Maryland, 3 (20-99); West Virginia, 5 (20-99); North Carolina, 2 (1-19); South Carolina, 1 (1-19); Georgia, 2 (20-99); Florida, 4 (20-99); East South Central—Kentucky, 1 (1-19); Tennessee, 1 (1-19); West South Central—Arkansas, 2 (500-999); Louisiana, 2 (1-19); Oklahoma, 7 (20-99); Mountain—Colorado, 5 (100-249); Arizona, 1 (1-19); Utah, 1 (20-99); Pacific—Washington, 8 (20-99); Oregon, 6 (20-99).

SIC 3369, Nonferrous Castings, N.E.C.: New England—New Hampshire, 1 (1-19); Vermont, 1 (1-19); Rhode Island, 8 (20-99); East North Central—Indiana, 5 (648); Wisconsin, 6 (286); West North Central—Minnesota, 7 (228); Iowa, 4 (320); South Atlantic—Delaware, 1 (1-19); Maryland, 1 (20-99); Virginia, 1 (1-19); West Virginia, 2 (20-99); North Carolina, 2 (20-99); East South Central—Tennessee, 4 (20-99); Alabama, 1 (1-19); Mississippi, 2 (1-19); West South Central—Louisiana, 1 (1-19); Oklahoma, 2 (20-99); Mountain—Colorado, 3 (1-19); Arizona, 1 (1-19); Pacific—Washington, 2 (1-19); Oregon, 2 (20-99).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

<sup>3</sup>See footnote 4, table 1 for subindustry definitions.

TABLE 3. Detailed Statistics: 1963

Item	Copper rolling and drawing (SIC 3351)			Aluminum rolling and drawing (SIC 3352)			Rolling and drawing, n.e.c. (SIC 3356)
	Total	Establishments		Total	Establishments operated by--		
		With casting department <sup>1</sup> (3351-21)	Without casting department <sup>1</sup> (3351-22)		Primary (integrated) producers <sup>2</sup> (3352-11)	Nonintegrated producers <sup>2</sup> (3352-12 and 3352-13)	
Primary product specialization ratio <sup>3</sup> .....	.90	(NA)	(NA)	.85	(NA)	(NA)	.84
Coverage ratio <sup>4</sup> .....	.91	(NA)	(NA)	.93	(NA)	(NA)	.81
Establishments, total.....number..	112	36	76	212	44	167	125
With 1 to 19 employees.....do....	20	-	20	59	1	58	58
With 20 to 99 employees.....do....	28	2	26	74	6	68	35
With 100 employees or more.....do....	64	34	30	79	37	42	32
Proprietors and working partners.....do....	3	(NA)	(NA)	24	(NA)	(NA)	26
All employees (average for the year).....do....	38,949	25,752	13,197	54,263	40,183	14,080	17,375
Payroll (all employees), total for year.....\$1,000..	260,320	174,972	85,348	376,647	293,862	82,785	117,454
Production workers:							
Average for the year.....number..	31,481	20,774	10,707	42,758	31,713	11,045	12,275
March.....do....	31,373	20,707	10,666	42,045	31,444	10,601	12,146
May.....do....	31,607	21,079	10,528	43,221	32,033	11,188	12,275
August.....do....	31,914	21,099	10,815	43,280	31,848	11,432	12,564
November.....do....	31,033	20,215	10,818	42,448	31,489	10,959	12,115
Man-hours.....l,000..	65,746	43,765	21,981	89,867	66,472	23,396	25,367
January-March.....do....	16,575	11,080	5,495	21,860	16,457	5,403	6,391
April-June.....do....	16,935	11,348	5,587	23,060	17,097	5,963	6,669
July-September.....do....	15,982	10,688	5,294	22,485	16,365	6,120	6,119
October-December.....do....	16,254	10,649	5,605	22,463	16,553	5,910	6,188
Wages.....\$1,000..	200,171	135,769	64,402	278,469	221,720	56,749	74,052
Cost of materials, etc., total.....do....	1,188,548	687,401	501,147	1,524,841	1,199,955	324,886	405,011
Materials, parts, containers, and supplies consumed.....do....	1,120,641	652,927	467,714	1,414,580	1,112,676	301,904	368,372
Cost of resales.....do....	35,588	13,062	22,526	56,194	47,543	8,651	15,648
Fuels consumed.....do....	11,353	8,095	3,258	20,581	17,138	3,443	4,749
Electric energy:							
Purchased:							
Quantity.....million kw.-hrs..	1,307	924	384	2,842	2,442	400	643
Cost.....\$1,000..	14,727	9,879	4,848	22,244	17,167	5,077	6,016
Generated less sold.....million kw.-hrs..	121	(D)	(D)	(D)	(D)	(D)	(D)
Contract work.....\$1,000..	6,239	3,438	2,801	11,242	5,434	5,808	10,226
Value of shipments (including resales), total.....do....	1,657,526	985,609	671,917	2,196,439	1,711,616	484,823	640,962
Value of resales.....do....	36,884	14,216	22,668	61,306	51,410	9,896	18,026
Value added by manufacture, adjusted.....do....	478,393	305,113	173,280	721,171	547,840	173,331	250,589
Manufacturers' inventories:							
Beginning of year, total.....do....	208,685	140,451	68,234	455,537	392,826	62,711	192,684
Finished products.....do....	52,761	33,111	19,650	101,138	78,610	22,528	57,713
Work-in-process.....do....	87,747	61,690	26,057	259,463	243,966	15,497	84,697
Materials, supplies, fuel, etc.....do....	68,177	45,650	22,527	94,936	70,250	24,686	50,274
End of year, total.....do....	218,431	150,220	68,211	511,902	427,225	84,677	205,905
Finished products.....do....	58,449	36,950	21,499	120,801	90,977	29,824	61,827
Work-in-process.....do....	91,474	64,756	26,718	289,297	267,778	21,519	95,221
Materials, supplies, fuel, etc.....do....	68,508	48,514	19,994	101,804	68,470	33,334	48,857
Expenditures for plant and equipment, total.....do....	44,944	27,944	17,000	87,386	(D)	(D)	22,668
New, total.....do....	43,462	26,965	16,497	81,282	64,735	16,547	22,154
New structures and additions to plant.....do....	2,776	1,319	1,457	10,985	7,960	3,025	3,367
New machinery and equipment.....do....	40,686	25,646	15,040	70,297	56,775	13,522	18,787
Used plant and equipment.....do....	1,482	979	503	6,104	(D)	(D)	514
Selected operating ratios:							
Payroll/Total employment.....	6,684	6,795	6,467	6,941	7,313	5,880	6,760
Production workers/Total employment.....	.81	.81	.81	.79	.79	.78	.71
Man-hours/Production workers.....	2,088	2,107	2,053	2,102	2,096	2,118	2,067
Production worker wages/Man-hours.....	3.04	3.10	2.93	3.10	3.34	2.43	2.92
Cost of materials and payrolls/Total value of shipments....	.87	.87	.86	.87	.87	.84	.82
Cost of materials/Total value of shipments.....	.72	.70	.74	.69	.70	.67	.63
Adjusted value added/Total employment.....	12,164	11,848	13,130	13,289	13,634	12,310	14,422
Salaries and wages/Adjusted value added.....	.55	.57	.49	.52	.54	.48	.47

See footnotes at end of table.



TABLE 3. Detailed Statistics: 1963—Continued

Item	Nonferrous wire drawing, etc. (SIC 3357)					Aluminum castings (SIC 3361)	Brass, bronze, copper castings (SIC 3362)	Nonferrous castings, n.e.c. (SIC 3369)
	Total	Wire drawing establishments With rod mill (3357-11)	Without rod mill or insulating (3357-12)	Wire insulating establishments Wire drawing (3357-13)	With neither wire rod nor wire drawing (3357-14)			
Primary product specialization ratio <sup>3</sup>	.91	(NA)	(NA)	(NA)	(NA)	.81	.84	.78
Coverage ratio <sup>4</sup>	.86	(NA)	(NA)	(NA)	(NA)	.83	.78	.75
Establishments, total.....number..	299	32	41	72	154	954	549	391
With 1 to 19 employees.....do....	72	-	11	2	59	633	356	226
With 20 to 99 employees.....do....	86	4	14	12	56	252	163	125
With 100 employees or more.....do....	141	28	16	58	39	69	30	40
Proprietors and working partners.....do....	39	(NA)	4,359	(NA)	(NA)	481	239	143
All employees (average for the year).....do....	56,418	9,258	4,359	30,347	12,454	36,216	15,341	17,686
Payroll (all employees), total for year.....\$1,000..	339,935	57,042	27,807	187,718	67,368	222,771	86,350	102,929
Production workers:								
Average for the year.....number..	43,905	7,537	3,524	23,241	9,603	30,746	12,835	14,845
March.....do....	43,579	7,597	3,498	23,033	9,451	30,621	12,775	14,572
May.....do....	44,721	7,424	3,445	24,252	9,595	30,732	12,883	14,608
August.....do....	43,446	7,602	3,566	22,645	9,633	30,536	13,039	14,815
November.....do....	43,876	7,524	3,586	23,035	9,731	31,095	12,643	15,385
Man-hours.....1,000..	90,368	15,672	7,382	47,731	19,583	63,432	26,052	30,320
January-March.....do....	22,922	3,970	1,889	12,204	4,859	16,011	6,373	7,491
April-June.....do....	22,947	3,986	1,823	12,190	4,948	16,251	6,609	7,504
July-September.....do....	21,347	3,653	1,781	11,135	4,778	15,311	6,542	7,354
October-December.....do....	23,182	4,063	1,889	12,196	5,034	15,859	6,528	7,971
Wages.....\$1,000..	240,904	43,801	19,624	132,664	44,815	174,155	65,095	78,447
Cost of materials, etc., total.....do....	1,452,095	368,424	98,082	735,320	250,269	299,398	144,433	134,318
Materials, parts, containers, and supplies consumed.....do....	1,405,424	362,207	94,234	706,321	242,662	262,003	132,061	104,619
Cost of resales.....do....	16,547	(D)	1,558	(D)	3,515	4,224	2,926	3,503
Fuels consumed.....do....	6,400	1,691	458	3,270	991	8,405	3,267	2,880
Electric energy:								
Purchased:								
Quantity.....million kw.-hrs..	1,338	303	103	760	180	659	162	221
Cost.....\$1,000..	15,996	3,550	1,165	8,880	2,401	7,080	2,658	3,416
Generated less sold.....million kw.-hrs..	(D)	-	-	(D)	-	(D)	-	-
Contract work.....\$1,000..	7,728	(D)	677	(D)	700	17,686	3,521	19,900
Value of shipments (including resales), total.....do....	2,117,943	498,611	147,864	1,083,475	387,993	640,193	287,534	302,731
Value of resales.....do....	22,257	(D)	2,176	(D)	5,509	5,629	3,616	5,496
Value added by manufacture, adjusted.....do....	677,535	133,749	50,923	350,789	142,074	343,863	144,092	168,530
Manufacturers' inventories:								
Beginning of year, total.....do....	327,648	55,801	20,286	199,100	52,461	44,185	31,176	22,233
Finished products.....do....	123,459	22,931	5,654	74,718	20,156	7,013	7,779	4,808
Work-in-process.....do....	115,999	18,558	7,235	75,787	14,419	15,199	11,417	8,791
Materials, supplies, fuel, etc.....do....	88,190	14,312	7,397	48,595	17,886	21,973	11,980	8,634
End of year, total.....do....	339,256	60,135	21,348	200,686	57,087	46,898	32,634	23,320
Finished products.....do....	138,665	24,929	6,451	81,639	25,646	7,796	8,090	5,227
Work-in-process.....do....	112,580	20,122	7,679	71,500	13,279	17,484	12,097	8,489
Materials, supplies, fuel, etc.....do....	88,011	15,084	7,218	47,547	18,162	21,618	12,447	9,604
Expenditures for plant and equipment, total.....do....	46,016	7,887	6,513	25,003	6,613	19,951	6,402	7,650
New, total.....do....	44,478	7,643	6,447	24,064	6,324	18,374	5,394	6,803
New structures and additions to plant.....do....	10,085	1,409	1,490	6,347	839	3,272	1,507	1,501
New machinery and equipment.....do....	34,393	6,234	4,957	17,717	5,485	15,102	3,887	5,302
Used plant and equipment.....do....	1,538	244	66	939	289	1,577	1,008	847
Selected operating ratios:								
Payroll/Total employment.....	6,025	6,161	6,378	6,186	5,409	6,151	5,629	5,820
Production workers/Total employment.....	.78	.82	.81	.77	.77	.85	.84	.84
Man-hours/Production workers.....	2,058	2,079	2,095	2,054	2,039	2,063	2,030	2,042
Production worker wages/Man-hours.....	2.67	2.79	2.66	2.78	2.29	2.75	2.50	2.59
Cost of materials and payrolls/Total value of shipments.....	.85	.85	.85	.85	.82	.82	.80	.78
Cost of materials/Total value of shipments.....	.69	.74	.66	.68	.65	.47	.50	.44
Adjusted value added/Total employment.....	12,009	14,447	11,682	11,559	11,408	9,395	9,393	9,529
Salaries and wages/Adjusted value added.....	.50	.43	.55	.54	.47	.65	.60	.61

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>See footnote 4, table 1 for subindustry definitions.

<sup>2</sup>See footnote 5, table 1 for subindustry definitions.

<sup>3</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>4</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3351.—COPPER ROLLING AND DRAWING											
Establishments.....number..	112	9	4	7	15	13	18	21	11	14	-
All employees:											
Total.....do....	38,949	40	(D)	85	507	994	2,881	7,315	7,811	19,316	-
Payroll.....\$1,000..	260,320	284	(D)	522	3,159	6,262	18,133	48,995	51,774	131,191	-
Value added, adjusted.....do....	478,393	805	(D)	2,306	6,827	18,242	35,965	90,836	101,216	222,196	-
Value of shipments.....do....	1,657,526	2,340	(D)	5,454	119,017	75,734	151,075	291,144	292,124	720,638	-
Capital expenditures, new...do....	43,462	113,079	(D)	(D)	(D)	(D)	(D)	4,810	3,139	22,434	-
Subindustry 3351-21.—Copper Rolling and Drawing—ESTABLISHMENTS WITH CASTING DEPARTMENT <sup>2</sup>											
Establishments.....number..	36	-	-	-	-	2	5	8	10	11	-
All employees:											
Total.....do....	25,752	-	-	-	-	840	(D)	2,942	21,970	(D)	-
Payroll.....\$1,000..	174,972	-	-	-	-	5,371	(D)	20,134	149,467	(D)	-
Value added, adjusted.....do....	305,113	-	-	-	-	11,693	(D)	30,276	263,144	(D)	-
Value of shipments.....do....	985,609	-	-	-	-	33,085	(D)	113,585	838,939	(D)	-
Capital expenditures, new...do....	26,965	-	-	-	-	296	(D)	2,745	23,924	(D)	-
Subindustry 3351-22.—Copper Rolling and Drawing—ESTABLISHMENTS WITHOUT CASTING DEPARTMENT <sup>2</sup>											
Establishments.....number..	76	9	4	7	15	11	13	13	1	3	-
All employees:											
Total.....do....	13,197	40	(D)	85	507	3,035	(D)	4,373	5,157	(D)	-
Payroll.....\$1,000..	85,343	284	(D)	522	3,159	19,024	(D)	28,861	33,498	(D)	-
Value added, adjusted.....do....	173,280	805	(D)	2,306	6,827	42,514	(D)	60,560	60,268	(D)	-
Value of shipments.....do....	671,917	2,340	(D)	5,454	119,017	193,724	(D)	177,559	173,823	(D)	-
Capital expenditures, new...do....	16,497	112,783	(D)	(D)	(D)	(D)	(D)	2,065	1,649	(D)	-
INDUSTRY 3352.—ALUMINUM ROLLING AND DRAWING											
Establishments.....number..	212	26	19	14	42	32	37	17	9	11	5
All employees:											
Total.....do....	54,263	56	128	188	1,442	2,317	5,948	6,051	5,590	32,543	(D)
Payroll.....\$1,000..	376,647	242	691	926	7,998	13,078	34,682	42,335	35,534	241,161	(D)
Value added, adjusted.....do....	721,171	1,481	2,506	3,674	18,622	28,244	71,008	73,839	86,105	435,692	(D)
Value of shipments.....do....	2,196,439	2,188	4,710	9,928	57,946	87,526	232,737	279,742	238,842	1,282,820	(D)
Capital expenditures, new...do....	81,282	3,446	87	191	2,112	2,768	4,866	9,247	7,834	53,731	(D)
Subindustry 3352-11.—Aluminum Rolling and Drawing—ESTABLISHMENTS OPERATED BY PRIMARY (INTEGRATED) PRODUCERS <sup>4</sup>											
Establishments.....number..	44	1	-	-	3	3	5	12	4	11	5
All employees:											
Total.....do....	40,183	258	-	-	(D)	(D)	838	6,544	(D)	32,543	(D)
Payroll.....\$1,000..	293,862	1,605	-	-	(D)	(D)	5,036	46,060	(D)	241,161	(D)
Value added, adjusted.....do....	547,840	2,014	-	-	(D)	(D)	14,227	95,907	(D)	435,692	(D)
Value of shipments.....do....	1,711,616	10,691	-	-	(D)	(D)	59,595	358,510	(D)	1,282,820	(D)
Capital expenditures, new...do....	64,735	936	-	-	(D)	(D)	639	9,429	(D)	53,731	(D)
Subindustries 3352-12 and-13.—Aluminum Rolling and Drawing—ESTABLISHMENTS OPERATED BY NONINTEGRATED PRODUCERS <sup>4</sup>											
Establishments.....number..	168	25	19	14	39	29	32	5	5	-	-
All employees:											
Total.....do....	14,080	3,873	(D)	(D)	(D)	(D)	5,110	5,097	(D)	-	-
Payroll.....\$1,000..	82,785	21,330	(D)	(D)	(D)	(D)	29,646	31,809	(D)	-	-
Value added, adjusted.....do....	173,331	52,513	(D)	(D)	(D)	(D)	56,781	64,037	(D)	-	-
Value of shipments.....do....	484,823	151,607	(D)	(D)	(D)	(D)	173,142	160,074	(D)	-	-
Capital expenditures, new...do....	16,547	4,668	(D)	(D)	(D)	(D)	4,227	7,652	(D)	-	-
INDUSTRY 3356.—ROLLING AND DRAWING, N.E.C.											
Establishments.....number..	125	26	15	17	19	16	17	6	6	2	1
All employees:											
Total.....do....	17,375	52	103	256	632	1,088	2,565	2,170	4,586	5,923	(D)
Payroll.....\$1,000..	117,454	330	623	1,674	3,636	6,116	16,556	15,552	29,405	43,562	(D)
Value added, adjusted.....do....	250,589	886	2,181	5,609	7,147	12,458	30,729	36,603	71,995	82,981	(D)
Value of shipments.....do....	640,962	3,982	4,963	33,892	30,580	59,033	85,093	113,142	142,079	168,198	(D)
Capital expenditures, new...do....	22,154	47	68	134	503	512	1,678	1,241	2,320	15,651	(D)

See footnotes at end of table.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963—Continued

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3357.—NONFERROUS WIRE DRAWING, ETC.											
Establishments.....number..	299	36	11	25	57	29	67	44	23	7	-
All employees:											
Total.....do....	56,418	126	(D)	341	1,949	1,993	10,507	15,191	16,158	10,153	-
Payroll.....\$1,000..	339,935	729	(D)	1,690	11,066	10,119	60,783	92,114	98,839	64,595	-
Value added, adjusted.....do....	677,525	1,429	(D)	4,430	26,366	18,926	127,438	183,139	201,503	114,304	-
Value of shipments.....do....	2,117,943	3,584	(D)	10,378	79,744	64,800	398,430	640,801	591,892	328,314	-
Capital expenditures, new...do....	44,478	133	(D)	230	1,450	2,227	8,052	8,821	10,987	12,578	-
Subindustry 3357-11.—Nonferrous Wire Drawing, etc.—WIRE DRAWING ESTABLISHMENTS WITH ROD MILL											
Establishments.....number..	32	-	-	-	2	2	16	7	4	1	-
All employees:											
Total.....do....	9,258	-	-	-	189	(D)	2,508	2,683	3,878	(D)	-
Payroll.....\$1,000..	57,042	-	-	-	1,155	(D)	14,768	17,639	23,480	(D)	-
Value added, adjusted.....do....	133,749	-	-	-	2,005	(D)	34,629	48,681	48,434	(D)	-
Value of shipments.....do....	498,611	-	-	-	9,382	(D)	108,680	234,692	145,857	(D)	-
Capital expenditures, new...do....	7,643	-	-	-	595	(D)	3,038	1,703	2,307	(D)	-
Subindustry 3357-12.—Nonferrous Wire Drawing, etc.—WIRE DRAWING ESTABLISHMENTS WITHOUT ROD MILL OR INSULATING											
Establishments.....number..	41	3	3	5	6	8	12	3	1	-	-
All employees:											
Total.....do....	4,359	21	(D)	274	(D)	539	1,791	1,734	(D)	-	-
Payroll.....\$1,000..	27,807	138	(D)	1,618	(D)	2,873	11,054	12,124	(D)	-	-
Value added, adjusted.....do....	50,923	301	(D)	3,418	(D)	7,286	18,828	21,090	(D)	-	-
Value of shipments.....do....	147,864	638	(D)	10,777	(D)	21,595	75,142	39,712	(D)	-	-
Capital expenditures, new...do....	6,447	26	(D)	394	(D)	924	1,155	3,948	(D)	-	-
Subindustry 3357-13.—Nonferrous Wire Drawing, etc.—WIRE DRAWING ESTABLISHMENTS WITHOUT ROD MILL BUT WITH INSULATING											
Establishments.....number..	72	-	-	2	6	6	18	18	16	6	-
All employees:											
Total.....do....	30,347	-	-	662	(D)	(D)	3,033	6,233	20,419	(D)	-
Payroll.....\$1,000..	187,718	-	-	3,334	(D)	(D)	17,014	38,953	128,417	(D)	-
Value added, adjusted.....do....	350,789	-	-	6,431	(D)	(D)	37,973	58,552	247,833	(D)	-
Value of shipments.....do....	1,083,475	-	-	28,153	(D)	(D)	131,528	198,940	724,854	(D)	-
Capital expenditures, new...do....	24,064	-	-	420	(D)	(D)	1,871	3,664	18,109	(D)	-
Subindustry 3357-14.—Nonferrous Wire Drawing, etc.—WIRE INSULATING ESTABLISHMENTS WITH NEITHER ROD MILL NOR INSULATING											
Establishments.....number..	154	33	8	18	43	13	21	16	2	-	-
All employees:											
Total.....do....	12,454	105	(D)	247	1,436	936	3,175	6,555	(D)	-	-
Payroll.....\$1,000..	67,368	591	(D)	1,204	8,253	4,438	17,947	34,935	(D)	-	-
Value added, adjusted.....do....	142,074	1,131	(D)	3,457	20,061	7,061	36,008	74,356	(D)	-	-
Value of shipments.....do....	387,993	2,946	(D)	7,303	53,282	24,430	83,080	216,952	(D)	-	-
Capital expenditures, new...do....	6,324	107	(D)	166	782	626	1,988	2,655	(D)	-	-
INDUSTRY 3361.—ALUMINUM CASTINGS											
Establishments.....number..	954	292	173	168	179	73	39	21	6	3	-
All employees:											
Total.....do....	36,216	550	1,164	2,300	5,527	5,397	6,240	6,964	4,611	3,463	-
Payroll.....\$1,000..	222,771	2,425	5,544	11,547	29,318	29,842	37,003	45,496	34,823	26,773	-
Value added, adjusted.....do....	343,863	5,049	9,553	18,279	46,082	50,931	60,412	60,864	59,171	33,522	-
Value of shipments.....do....	640,193	8,699	16,101	32,190	82,686	90,251	111,302	119,103	110,615	69,246	-
Capital expenditures, new...do....	18,374	273	397	662	2,284	1,987	3,898	1,968	3,105	3,800	-
INDUSTRY 3362.—BRASS, BRONZE, COPPER CASTINGS											
Establishments.....number..	549	119	97	140	128	35	21	8	1	-	-
All employees:											
Total.....do....	15,341	236	659	1,957	3,837	2,289	3,029	3,334	(D)	-	-
Payroll.....\$1,000..	86,350	1,192	3,280	9,851	20,625	12,977	17,695	20,730	(D)	-	-
Value added, adjusted.....do....	144,092	2,327	5,451	15,189	32,403	23,396	30,915	34,411	(D)	-	-
Value of shipments.....do....	287,534	4,054	9,913	31,149	68,060	52,889	60,166	61,303	(D)	-	-
Capital expenditures, new...do....	5,394	132	163	428	1,327	661	805	1,878	(D)	-	-

See footnotes at end of table.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963—Continued

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
	INDUSTRY 3369.—NONFERROUS CASTINGS, N.E.C.										
Establishments.....number..	391	102	55	69	77	48	24	13	3	-	-
All employees:											
Total.....do....	17,686	164	392	976	2,573	3,388	3,902	6,291	(D)	-	-
Payroll.....\$1,000..	102,929	986	1,926	4,926	13,462	19,089	22,302	40,238	(D)	-	-
Value added, adjusted.....do....	168,530	1,974	4,178	8,267	23,546	32,693	36,308	61,564	(D)	-	-
Value of shipments.....do....	302,731	3,548	7,313	14,733	45,746	60,850	64,151	106,390	(D)	-	-
Capital expenditures, new...do....	6,803	194	287	517	1,157	1,541	1,574	1,533	(D)	-	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. n.e.c. Not elsewhere classified.

<sup>1</sup>Includes capital expenditures of approximately \$5-\$10 million for plants under construction but not in operation.<sup>2</sup>See footnote 4, table 1 for subindustry definitions.<sup>3</sup>Includes capital expenditures of approximately \$200-\$500 thousand for plants under construction but not in operation.<sup>4</sup>See footnote 5, table 1 for subindustry definition.

TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
						Col. B Col. B+C (percent)				Col. B Col. F (percent)
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(percent)	(\$1,000)	(\$1,000)	(\$1,000)	(percent)
		A	B	C	D	E	F	G	H	I
3351	Copper rolling and drawing.....1963..	1,657,526	1,409,059	154,432	94,035	90	1,544,505	1,409,059	135,446	91
	1958..	1,209,926	975,762	134,063	100,101	88	1,034,397	975,762	58,635	94
3352	Aluminum rolling and drawing.....1963..	2,196,439	1,758,267	303,751	134,421	85	1,898,885	1,758,267	140,618	193
	1958..	1,562,381	1,360,661	131,338	70,382	91	1,472,252	1,360,661	111,591	192
3356	Rolling and drawing, n.e.c.....1963..	640,962	511,329	99,471	30,162	84	630,536	511,329	119,207	281
	1958..	486,308	352,879	105,163	28,266	77	428,210	352,879	75,331	282
3357	Nonferrous wire drawing, etc.....1963..	2,117,943	1,885,334	176,272	56,337	91	2,185,011	1,885,334	299,677	386
	1958..	1,465,999	1,357,662	69,735	38,602	95	1,634,961	1,357,662	277,299	383
3361	Aluminum castings.....1963..	640,193	504,783	121,685	13,725	81	607,028	504,783	102,245	83
	1958..	422,041	324,538	86,497	11,006	79	399,605	324,538	75,067	81
3362	Brass, bronze, copper castings...1963..	287,534	234,622	43,901	9,011	84	299,769	234,622	65,147	78
	1958..	220,955	180,459	33,052	7,464	85	222,755	180,459	42,296	81
3369	Nonferrous castings, n.e.c.....1963..	302,731	229,121	64,434	9,176	78	306,484	229,121	77,363	75
	1958..	234,649	179,536	50,381	4,732	78	233,236	179,536	53,700	77

Note: See Introduction for an explanation of terms used.

n.e.c. Not elsewhere classified.

Included in this industry is aluminum and aluminum-base alloy wire (including ACSR) which is also primary to industry 3357, Nonferrous Wire Drawing, Etc. A coverage ratio computed on the basis of including both industries to which aluminum and aluminum-base alloy wire (including ACSR) is primary, in 1963 would total 96 percent; 93 percent by industry 3352, and 3 percent by industry 3357. The remaining 4 percent was shipped by establishments in other industries. For 1958 the comparable percentages were: 96 percent; 92 percent by industry 3352, and 4 percent by industry 3357. The remaining 4 percent was shipped by establishments in other industries.

<sup>2</sup>Included in this industry is other nonferrous metal wire, which is also primary to industry 3357, Nonferrous Wire Drawing, Etc. A coverage ratio computed on the basis of including both industries to which nonferrous metal wire is primary in 1963 would total 85 percent; 81 percent by industry 3356, and 4 percent by industry 3357. The remaining 15 percent was shipped by establishments in other industries. For 1958 the comparable percentages were: 87 percent; 82 percent by industry 3356, and 5 percent by industry 3357. The remaining 13 percent was shipped by establishments in other industries.

<sup>3</sup>Included in this industry are aluminum and aluminum-base alloy wire (including ACSR), other nonferrous metal wire, nonferrous woven wire products, and appliance wire and cord and flexible cord sets which are also primary, respectively, to industries 3352, Aluminum Rolling and Drawing; 3356, Rolling and Drawing, Etc.; 3481, Fabricated Wire Products, N.E.C.; and 3699, Electrical Products, N.E.C. A coverage ratio computed on the basis of including the industries to which these products are primary in 1963 would total 94 percent; 76 percent by industry 3357, and 8 percent by industries 3352, 3356, 3481, and 3699. The remaining 6 percent was shipped by establishments in other industries. For 1958 the comparable percentages were: 93 percent; 84 percent by industry 3357, and 9 percent by industries 3352, 3356, 3481, and 3699. The remaining 7 percent was shipped by establishments in other industries.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Copper rolling and drawing (SIC 3351)			Other industries
			Total	Establishments with casting department <sup>1</sup>	Establishments without casting department <sup>2</sup>	
	COPPER ROLLING AND DRAWING INDUSTRY					
	Total shipments and receipts of the industry.....	(X)	1,657,526	985,609	671,917	(X)
	Primary products.....	1,544,505	1,409,059	846,740	562,319	135,446
33511	Copper and copper-base alloy wire, bare and tinned for purposes other than electrical transmission.....	73,150	59,514	41,940	17,574	13,636
33512	Rolled, drawn and extruded copper and copper-base alloy mill products.....	1,471,355	1,349,545	804,800	544,745	121,810
	Secondary products.....	(X)	154,432	93,399	61,033	(X)
33412	Secondary copper (ingot, shot, etc.).....	(X)	(over 2)	(over 2)	(under 2)	(X)
33522	Aluminum plate and sheet (including foil stock).....	(X)	(over 2)	(over 2)	(under 2)	(X)
33524	Rolled aluminum rod, bar (including continuous cast) and structural shapes....	(X)	(over 2)	-	(over 2)	(X)
33525	Extruded aluminum rod, bar, and other extruded shapes excluding tube.....	(X)	9,836	(over 2)	(over 2)	(X)
33526	Aluminum tube and other rolled, drawn or extruded mill products.....	(X)	10,409	7,294	3,115	(X)
33560	Rolled, drawn, and extruded nonferrous metal mill products (except copper and aluminum).....	(X)	18,876	10,779	8,097	(X)
33571	Aluminum and aluminum-base alloy wire and cable (including ACSR) (produced in nonferrous wire drawing establishments).....	(X)	(over 2)	(under 2)	(over 2)	(X)
33572	Copper and copper-base alloy wire (including strand and cable) bare and tinned for electrical transmission.....	(X)	(over 2)	(over 2)	(over 2)	(X)
33620	Copper and copper-base alloy castings.....	(X)	(over 2)	(over 2)	(over 2)	(X)
33920	Nonferrous forgings.....	(X)	14,063	(over 2)	(over 2)	(X)
34613	Job stampings, automotive.....	(X)	(over 2)	-	(over 2)	(X)
35552	Other printing trades machinery, including parts and attachments.....	(X)	(over 2)	-	(over 2)	(X)
35855	Condensing units, all refrigerants.....	(X)	(over 2)	-	(over 2)	(X)
36216	Parts and supplies for motors, generators, and motor generator sets, except land transportation.....	(X)	(over 2)	(under 2)	(over 2)	(X)
36232	Arc welding electrodes, metal.....	(X)	(over 2)	(over 2)	-	(X)
36442	Electrical conduit and conduit fittings.....	(X)	(over 2)	-	(over 2)	(X)
	Miscellaneous receipts.....	(X)	94,035	45,470	48,565	(X)
	Contract work.....	(X)	26,218	13,199	13,019	(X)
	Resales.....	(X)	36,884	14,216	22,668	(X)
	Other miscellaneous receipts.....	(X)	30,933	18,055	12,878	(X)
	Listing of other industries with over \$2 million shipments of each primary product class:					
33511	3357 Nonferrous wire drawing, etc.....	(X)	(X)	(X)	(X)	8,708
33512	3312 Blast furnaces and steel mills.....	(X)	(X)	(X)	(X)	(over 2)
	3352 Aluminum rolling and drawing.....	(X)	(X)	(X)	(X)	(10-20)
	3357 Nonferrous wire drawing, etc.....	(X)	(X)	(X)	(X)	(50-100)
	3511 Steam engines and turbines.....	(X)	(X)	(X)	(X)	(over 2)
	3661 Telephone; telegraph apparatus.....	(X)	(X)	(X)	(X)	(over 2)
		All industries	Aluminum rolling and drawing (SIC 3352)	Other industries		
	ALUMINUM ROLLING AND DRAWING INDUSTRY					
	Total shipments and receipts of the industry.....	(X)	2,196,439		(X)	
	Primary products.....	1,898,885	1,758,267		140,618	
33521	Aluminum and aluminum-base alloy wire (including ACSR).....	<sup>2</sup> 127,948	56,929		<sup>2</sup> 71,019	
33522	Aluminum plate and sheet (including foil stock).....	850,459	827,259		23,200	
33523	Plain aluminum foil.....	<sup>3</sup> 129,381	129,381		( <sup>3</sup> )	
33524	Rolled aluminum rod, bare (including continuous cast) and structural shapes....	145,157	137,073		8,084	
33525	Extruded aluminum rod, bar, and other aluminum shapes, excluding tube.....	397,295	375,552		21,743	
33526	Aluminum tube and other rolled, drawn or extruded mill products.....	139,172	122,939		16,233	
33527	Aluminum ingot, produced in aluminum rolling mills.....	<sup>4</sup> 49,024	49,024		-	
33528	Aluminum extrusion billet, produced in aluminum rolling mills.....	<sup>4</sup> 48,745	48,745		-	
33520	Aluminum rolling and drawing, n.s.k.....	11,704	<sup>3</sup> 11,704		( <sup>3</sup> )	
	Secondary products.....	(X)	303,751		(X)	
19610	Small arms ammunition, 30 mm. and under (or 1.18 inches and under).....	(X)	(over 2)		(X)	
25912	Venetian blinds.....	(X)	(over 2)		(X)	
26415	Laminated or coated wrappers, except waxed (rolls and sheets).....	(X)	(over 2)		(X)	
26416	Other coated and processed paper, except wrappers.....	(X)	(over 2)		(X)	
26510	Folding paperboard boxes and cartons (except ice cream, butter, mayonnaise, frozen food, etc.).....	(X)	(over 2)		(X)	
33512	Rolled, drawn and extruded copper and copper-base alloy mill products.....	(X)	(10-20)		(X)	

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963 and 1958—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Aluminum rolling and drawing (SIC 3352)	Other industries
ALUMINUM ROLLING AND DRAWING INDUSTRY—Continued				
Secondary products—Continued				
33560	Rolled, drawn, and extruded nonferrous metal mill products (except copper and aluminum).....	(X)	9,692	(X)
33572	Copper and copper-base alloy wire (including strand and cable) bare and tinned for electrical transmission.....	(X)	(over 2)	(X)
33574	Communication wire and cable.....	(X)	(2-5)	(X)
33578	Power wire and cable.....	(X)	(over 2)	(X)
33579	Other insulated wire and cable, n.e.c.....	(X)	15,688	(X)
33920	Nonferrous forgings.....	(X)	(10-20)	(X)
34320	Plumbing fixture fittings and trim (brass goods).....	(X)	(over 2)	(X)
34422	Metal window sash and frames (except storm sash).....	(X)	(5-10)	(X)
34423	Metal molding and trim, and store fronts.....	(X)	(over 2)	(X)
34441	Sheet, metal roofing and siding and roof drainage equipment.....	(X)	30,074	(X)
34492	Prefabricated and portable metal buildings and parts.....	(X)	(over 2)	(X)
34612	Job stampings, except automotive.....	(X)	(2-5)	(X)
34613	Job stampings, automotive.....	(X)	(over 2)	(X)
34811	Noninsulated ferrous wire rope, cable and strand not produced by wire drawers..	(X)	(over 2)	(X)
34970	Metal foil and leaf (except plain aluminum foil).....	(X)	120,990	(X)
35990	Carburetors, pistons, and other machine shop products.....	(X)	(over 2)	(X)
36442	Electrical conduit and conduit fittings.....	(X)	(10-20)	(X)
	Other secondary products.....	(X)	23,950	(X)
	Miscellaneous receipts.....	(X)	134,421	(X)
93000	Contract work, including toll processing.....	(X)	19,141	(X)
99980	Sales of scrap and refuse.....	(X)	49,487	(X)
99989	Resales.....	(X)	61,306	(X)
99980	All other miscellaneous receipts.....	(X)	4,487	(X)
Listing of other industries with over \$2 million shipments of each primary product class:				
33522	3351 Copper rolling and drawing.....	(X)	(X)	(over 2)
	3356 Rolling and drawing, n.e.c.....	(X)	(X)	(5-10)
33524	3351 Copper rolling and drawing.....	(X)	(X)	(over 2)
33525	3351 Copper rolling and drawing.....	(X)	(X)	9,836
	3356 Rolling and drawing, n.e.c.....	(X)	(X)	(over 2)
	3442 Metal doors, sash, and trim.....	(X)	(X)	2,240
33526	3351 Copper rolling and drawing.....	(X)	(X)	10,409
	3442 Metal doors, sash, and trim.....	(X)	(X)	(2-5)
ROLLING AND DRAWING, N.E.C., INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	640,962	(X)
33560	Rolled, drawn and extruded nonferrous metal mill products (except copper and aluminum).....	<sup>5</sup> 630,536	511,329	<sup>5</sup> 119,207
	Secondary products.....	(X)	99,471	(X)
28199	Reagent and high purity grades of inorganic chemicals and other inorganic chemicals, n.e.c.....	(X)	3,640	(X)
33416	Other secondary nonferrous metals (pig, ingot, shot, etc.).....	(X)	2,576	(X)
33991	Metal powders and paste.....	(X)	5,744	(X)
	All other secondary products.....	(X)	87,511	(X)
28993	Essential oils, fireworks, and pyrotechnics, chemicals and chemical preparations, n.e.c.....	(X)	(over 2)	(X)
33167	Cold rolled steel sheet and strip (not made in steel mills).....	(X)	(over 2)	(X)
33413	Secondary lead (ingot, shot, etc.).....	(X)	(5-10)	(X)
33522	Aluminum plate and sheet (including foil stock).....	(X)	(5-10)	(X)
33525	Extruded aluminum rod, bar, and other extruded shapes, excluding tube.....	(X)	(5-10)	(X)
35595	Other special industry machinery, and equipment.....	(X)	(over 2)	(X)
36232	Arc welding electrodes, metal.....	(X)	(over 2)	(X)
36430	Current carrying devices, including lightning rods.....	(X)	(over 2)	(X)
36920	Primary batteries, dry and wet.....	(X)	(over 2)	(X)
37224	Aircraft engine parts and accessories.....	(X)	(10-20)	(X)
37291	Other aircraft parts and auxiliary equipment.....	(X)	(over 2)	(X)
37292	Guided missile components and subassemblies, n.e.c.....	(X)	(over 2)	(X)
	Miscellaneous receipts.....	(X)	30,162	(X)
	Receipts for toll processing.....	(X)	3,149	(X)
	Other contract work.....	(X)	4,219	(X)
	Value of resales.....	(X)	18,026	(X)
	Other miscellaneous receipts.....	(X)	4,768	(X)

See footnotes at end of table.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963 and 1958—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Rolling and drawing, n.e.c. (SIC 3356)	Other industries				
	ROLLING AND DRAWING, N.E.C., INDUSTRY—Continued							
	Listing of other industries with over \$2 million shipments of product class							
33560	33560:							
	3312 Blast furnaces and steel mills.....	(X)	(X)	6,681				
	3315 Steel wire drawing, etc.....	(X)	(X)	(over 2)				
	3317 Steel pipe and tube.....	(X)	(X)	(2-5)				
	3323 Steel foundries.....	(X)	(X)	(over 2)				
	3339 Primary nonferrous metals, n.e.c.....	(X)	(X)	(5-12)				
	3341 Secondary nonferrous metals.....	(X)	(X)	16,507				
	3351 Copper rolling and drawing.....	(X)	(X)	18,876				
	3352 Aluminum rolling and drawing.....	(X)	(X)	9,692				
	3545 Machine tool accessories.....	(X)	(X)	(over 2)				
	3661 Telephone; telegraph apparatus.....	(X)	(X)	(over 2)				
	3694 Engine electrical equipment.....	(X)	(X)	(over 2)				
	3871 Watches and clocks.....	(X)	(X)	(over 2)				
	Class of products and miscellaneous receipts	All industries	Nonferrous wire drawing, etc. (SIC 3357)		Other industries			
		Total	Establishments with wire drawing department		Establish- ments without wire drawing department			
			With rod mill	Without rod mill				
				Without insulating department		With insulating department		
	NONFERROUS WIRE DRAWING, ETC., INDUSTRY							
	Total shipments and receipts of the industry.....	(X)	2,117,943	498,611	147,864	1,083,475	387,993	(X)
	Primary products.....	2,185,011	1,885,334	381,774	125,077	1,011,205	367,278	299,677
33571	Aluminum and aluminum-base alloy wire and cable (including ACSR).....	<sup>6</sup> 127,948	66,365	(D)	24,435	(D)	-	<sup>6</sup> 61,583
33572	Copper and copper-base alloy wire (including strand and cable) bare and tinned, for electrical transmission.....	244,979	217,060	117,980	65,438	(D)	(D)	27,919
33573	Other bare nonferrous metal wire.....	<sup>7</sup> 45,600	25,831	(D)	11,437	(D)	-	<sup>7</sup> 19,769
33574	Communication wire and cable.....	581,781	579,287	72,455	-	366,453	140,379	2,494
33575	Nonferrous wire cloth and other woven wire products.....	<sup>8</sup> 70,487	21,231	-	21,231	-	-	<sup>8</sup> 49,256
33576	Appliance wire and cord and flexible cord sets.....	<sup>9</sup> 167,664	101,667	12,726	(D)	57,833	(D)	<sup>9</sup> 65,997
33577	Magnet wire.....	258,308	216,427	94,674	-	(D)	(D)	41,881
33578	Power wire and cable.....	218,810	216,363	17,593	-	172,279	26,491	2,447
33579	Other insulated wire and cable, n.e.c.....	454,071	425,740	53,577	(D)	259,426	(D)	28,331
33570	Nonferrous wire drawing, etc., n.s.k.....	15,363	15,363	-	(D)	(D)	10,631	-
	Secondary products.....	(X)	176,262	103,768	16,130	43,138	13,236	(X)
33155	Steel wire not produced in steel mills.....	(X)	(2-5)	(under 2)	(2-5)	(under 2)	-	(X)
33511	Copper and copper base alloy wire, bare and tinned for purposes other than electrical transmission.....	(X)	8,708	(over 2)	(2-5)	(under 2)	(under 2)	(X)
33512	Rolled, drawn, and extruded copper and copper-base alloy mill products.....	(X)	(50-100)	(50-100)	-	(under 2)	-	(X)
34815	Nonferrous wire cloth and other woven nonferrous wire products, not made by wire drawers.....	(X)	(over 2)	-	(over 2)	-	-	(X)
36442	Electrical conduit and conduit fittings.....	(X)	(over 2)	-	-	(over 2)	(under 2)	(X)
36612	Other telephone and telegraph (wire) apparatus, equipment and components.....	(X)	(over 2)	-	-	(over 2)	-	(X)
36621	Commercial industrial and military electronic communication equipment (except broadcast equipment, space satellite- borne communication equipment).....	(X)	(over 2)	-	-	-	(over 2)	(X)
36795	Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks).. Miscellaneous receipts.....	(X)	(over 2)	(over 2)	-	-	(under 2)	(X)
	Contract work.....	(X)	56,337	13,069	6,657	29,132	7,479	(X)
	Resales.....	(X)	5,613	4,919	265	14,288	713	(X)
	Other miscellaneous receipts.....	(X)	22,257	8,150	2,176	14,844	5,509	(X)
	Listing of other industries with over \$2 million shipments of each primary product class:							
33571	3351 Copper rolling and drawing.....	(X)	(X)	(X)	(X)	(X)	(X)	(over 2)
33572	3351 Copper rolling and drawing.....	(X)	(X)	(X)	(X)	(X)	(X)	(over 2)
	3352 Aluminum rolling and drawing.....	(X)	(X)	(X)	(X)	(X)	(X)	(2-5)
33573	3315 Steel wire drawing, etc.....	(X)	(X)	(X)	(X)	(X)	(X)	(over 2)
33575	3442 Metal doors, sash, and trim.....	(X)	(X)	(X)	(X)	(X)	(X)	(over 2)
33576	3643 Current carrying devices.....	(X)	(X)	(X)	(X)	(X)	(X)	12,624
33577	3612 Transformers.....	(X)	(X)	(X)	(X)	(X)	(X)	(over 2)
	3621 Motors and generators.....	(X)	(X)	(X)	(X)	(X)	(X)	(over 2)
	3717 Motor vehicles and parts.....	(X)	(X)	(X)	(X)	(X)	(X)	(over 2)
33579	3352 Aluminum rolling and drawing.....	(X)	(X)	(X)	(X)	(X)	(X)	15,688
	3717 Motor vehicles and parts.....	(X)	(X)	(X)	(X)	(X)	(X)	(over 2)

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963 and 1958—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Aluminum castings (SIC 3361)	Brass, bronze, copper castings (SIC 3362)	Nonferrous castings, n.e.c. (SIC 3369)	Gray iron foundries (SIC 3321)	Other industries
NONFERROUS FOUNDRIES INDUSTRIES							
	Total shipments and receipts of the industry.....	(X)	640,193	287,534	302,731	(X)	(X)
336--	Nonferrous castings.....	1,213,281	580,955	254,458	270,807	30,869	76,192
33610	Aluminum and aluminum-base alloy castings.....	607,028	504,783	18,430	39,265	17,369	27,181
33620	Copper and copper-base alloy castings.....	299,769	15,995	234,622	2,421	10,487	36,244
33690	Nonferrous castings, n.e.c.....	306,484	60,177	1,406	229,121	3,013	12,767
	Other products.....	(X)	45,513	24,065	22,748	(X)	(X)
33230	Steel castings.....	(X)	5,702	6,469	577	(X)	(X)
35441	Special dies and tools, die sets, jigs and fixtures.....	(X)	18,369	570	10,240	(X)	(X)
35650	Industrial patterns, except shoe (of wood, metal, etc.).....	(X)	5,785	908	1,925	(X)	(X)
35661	Plain bearings.....	(X)	(under 2)	3,783	(under 2)	(X)	(X)
35990	Carburetors, pistons, and other machine shop products.....	(X)	2,183	(under 2)	-	(X)	(X)
37175	Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers.....	(X)	(under 2)	(under 2)	(over 2)	(X)	(X)
	All other products.....	(X)	13,474	12,335	10,006	(X)	(X)
	Miscellaneous receipts.....	(X)	13,725	9,011	9,176	(X)	(X)
	Contract and commission work.....	(X)	2,069	1,667	1,879	(X)	(X)
	Value of resales.....	(X)	5,629	3,616	5,496	(X)	(X)
	Scrap and salable refuse.....	(X)	4,251	2,122	1,801	(X)	(X)
	Other miscellaneous receipts.....	(X)	1,776	1,606			
Listing of other industries with over \$2 million shipments of each primary product class:							
33610	3322 Malleable iron foundries.....	(X)	(X)	(X)	(X)	(X)	2,485
	3323 Steel foundries.....	(X)	(X)	(X)	(X)	(X)	2,959
	3599 Miscellaneous machinery.....	(X)	(X)	(X)	(X)	(X)	4,253
	3634 Electric housewares and fans.....	(X)	(X)	(X)	(X)	(X)	(over 2)
	3635 Household vacuum cleaners.....	(X)	(X)	(X)	(X)	(X)	(over 2)
33620	3322 Malleable iron foundries.....	(X)	(X)	(X)	(X)	(X)	1,785
	3323 Steel foundries.....	(X)	(X)	(X)	(X)	(X)	3,089
	3351 Copper rolling and drawing.....	(X)	(X)	(X)	(X)	(X)	(5-10)
	3562 Ball and roller bearings.....	(X)	(X)	(X)	(X)	(X)	(2-5)
	3566 Power transmission equipment.....	(X)	(X)	(X)	(X)	(X)	2,655
	3585 Refrigeration machinery.....	(X)	(X)	(X)	(X)	(X)	(over 2)
	3662 Radio, TV communications equipment.....	(X)	(X)	(X)	(X)	(X)	(over 2)
	3717 Motor vehicles and parts.....	(X)	(X)	(X)	(X)	(X)	(over 2)
33690	3494 Valves and pipe fittings.....	(X)	(X)	(X)	(X)	(X)	2,346

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>See footnote 4, table 1 for subindustry definition.

<sup>2</sup>Includes total for product class 33571, Aluminum and aluminum-base alloy wire and cable (including ACSR), which is primary to industry 3352.

<sup>3</sup>Figures for "other industries" included with industry 3352 to avoid disclosing figures for individual companies.

<sup>4</sup>These figures exclude the values for aluminum ingot and aluminum extrusion billet produced by industries other than 3352, Aluminum Rolling and Drawing. (See industries 3334, Primary Aluminum, and 3341, Secondary Nonferrous Metals, in final industry report MC63(2)-33C, Smelting and Refining of Nonferrous Metals and Alloys.)

<sup>5</sup>Includes total for product class 33573, Other bare nonferrous metal wire, which is primary to industry 3356.

<sup>6</sup>Includes total for product class 33521, Aluminum and aluminum-base alloy wire (including ACSR), which is primary to industry 3357.

<sup>7</sup>Includes part of product class 33560, Rolled, drawn, and extruded nonferrous metal mill products (except copper and aluminum), which is primary to industry 3357.

<sup>8</sup>Includes total for product class 34815, Nonferrous wire cloth and other woven nonferrous wire products, which is primary to industry 3357.

<sup>9</sup>Includes total for product class 36996, Appliance wire and cord, and flexible cord sets, which is primary to industry 3357.



**TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958**

Product code	Product	Receipts <sup>1</sup>	Total shipments including interplant transfers <sup>2</sup>		Commercial shipments		Interplant transfers		Produced and consumed in the same plant in the manufacture of other products	Shipments of products manufactured from materials owned by others
			Quantity	Value	Quantity	Value	Quantity	Value		
		(short tons)	(short tons)	(\$1,000)	(short tons)	(\$1,000)	(short tons)	(\$1,000)	(short tons)	(short tons)
1963										
3351- --	COPPER ROLLING AND DRAWING, TOTAL <sup>3</sup> .	(NA)	(NA)	1,544,505	(NA)	1,230,441	(NA)	314,064	(NA)	(D)
33511 --	Copper wire, bare and tinned (non-electrical).....	(NA)	67,896	73,150	63,368	68,372	4,528	4,778	(NA)	(D)
33511 11	Unalloyed.....	(NA)	12,976	13,051	63,368	68,372	4,528	4,778	(NA)	(D)
33511 31	Alloyed.....	(NA)	54,920	60,099						
33512 --	Copper mill shapes.....	(NA)	(NA)	1,471,355	(NA)	1,162,069	(NA)	309,286	(NA)	207,609
	Unalloyed:									
33512 11	Rod, bar, and shapes.....	(NA)	548,811	380,080	192,285	141,879	356,526	238,201	(NA)	164,117
33512 13	Flat products (sheet, strip, plate, etc.).....	(NA)	122,570	122,366	118,774	119,118	3,796	3,248	(NA)	8,675
33512 16	Pipe and tube, plumbing.....	(NA)	234,998	245,697	225,744	235,466	9,254	10,231	(NA)	
33512 18	Other pipe and tube.....	(NA)	136,584	147,137	132,462	143,278	4,122	3,859	(NA)	1,902
	Alloyed:									
33512 32	Rod, bar, and shapes.....	(NA)	222,573	167,502	211,063	160,606	11,510	6,896	(NA)	32,915
33512 35	Flat products (sheet, strip, plate), including military cups and disks.	(NA)	308,910	303,786	260,352	263,331	48,434	40,455	(NA)	
33512 36	Pipe and tube, plumbing.....	(NA)	15,545	19,456	15,489	19,415	56	41	(NA)	
33512 38	Other pipe and tube.....	(NA)	66,492	82,344	59,849	75,989	6,643	6,355	(NA)	
33512 00	Copper mill shapes, n.s.k.....	(NA)	(NA)	2,987	(NA)	2,987	-	-	-	-
3352- --	ALUMINUM ROLLING AND DRAWING, TOTAL <sup>4</sup> .....	(NA)	(X)	1,898,885	(X)	(X)	(X)	(X)	(X)	(X)
33521 --	Aluminum and aluminum-base alloy wire (including ACSR).....	(NA)	191,794	127,948	180,819	118,814	10,975	9,134	(NA)	(D)
33571 --										
33521 --	Made in aluminum rolling mills (SIC 3352).....	(NA)	81,114	56,929	75,218	51,424	5,896	5,505	(NA)	(D)
33571 --	Made in nonferrous wire drawing (SIC 3357) and other industries.....	(NA)	110,680	71,019	105,601	67,390	5,079	3,629	(NA)	-
33521 11	Bare wire, conductor.....	(NA)	19,456	11,597	15,095	8,126	4,361	3,471	(NA)	-
33571 11		(NA)	6,239	4,228	15,095	8,126	4,361	3,471	(NA)	-
33571 11		(NA)	13,217	7,369					(NA)	-
33521 51	Bare wire, other than conductor....	(NA)	23,238	23,756	19,441	19,787	3,795	3,969	(NA)	(D)
33571 51		(NA)	17,683	18,111	19,441	19,787	3,795	3,969	(NA)	(D)
33571 51		(NA)	5,555	5,645					(NA)	-
33521 62	Aluminum cable-steel reinforced (ACSR).....	(NA)	<sup>5</sup> 130,351	81,254	146,282	90,901	2,818	1,694	(NA)	-
33571 61		(NA)	<sup>5</sup> 18,749	11,341					(NA)	-
33521 69	Other aluminum cable, bare.....	(NA)								
33571 65										

See footnotes at end of table.

TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Receipts <sup>1</sup>	Total shipments including interplant transfers <sup>2</sup>		Commercial shipments		Interplant transfers		Produced and consumed in the same plant in the manufacture of other products	Shipments of products manufactured from materials owned by others
			Quantity	Value	Quantity	Value	Quantity	Value		
		(short tons)	(short tons)	(\$1,000)	(short tons)	(\$1,000)	(short tons)	(\$1,000)	(short tons)	(short tons)
1963--Continued										
3352--	ALUMINUM ROLLING AND DRAWING—Continued									
33522	Aluminum plate and sheet (including foil stock).....	(NA)	(X)	850,459	(X)	714,391	(X)	136,068	(NA)	23,120
33522 13	Plate, heat-treatable.....	(NA)	44,157	51,811	101,669	104,334	5,485	6,308	(NA)	
33522 15	Plate, nonheat-treatable.....	(NA)	62,997	58,831					(NA)	
	Sheet:									
33522 23	Flat, heat-treatable.....	(NA)	82,518	80,092	79,276	77,751	3,242	2,341	(NA)	
33522 24	Flat, nonheat-treatable.....	(NA)	297,082	230,064	272,021	210,919	25,061	19,145	(NA)	
33522 26	Flat, nonheat-treatable, precoated (D)	(D)							(NA)	
33522 27	Coiled, heat-treatable.....	(NA)	20,141	18,256	18,113	16,986	2,028	1,270	(NA)	
33522 31	Coiled, nonheat-treatable, bare...	(NA)	539,593	366,337	440,209	302,948	156,296	107,004	(NA)	
33522 33	Coiled, nonheat-treatable, pre-coated.....	(NA)	56,912	43,615					(NA)	
33522 00	Aluminum plate and sheet, n.s.k....	(NA)	(X)	1,453	(X)	1,453	-	-	(NA)	
33523 51	Plain aluminum foil.....	(NA)	6103,876	129,381	60,192	78,415	43,684	50,966	(NA)	
33524	Rolled aluminum rod, bar (including continuous cast) and structural shapes.....	(NA)	(X)	145,157	(X)	61,615	(X)	83,542	(NA)	
33524 21	Rod and bar, rolled.....	(NA)	203,637	139,511	77,669	61,461	132,005	83,542	(NA)	
33524 25	Rod and bar, continuous cast.....	(NA)							(NA)	
33524 31	Rolled structural shapes.....	(NA)	6,037	5,492	365,158	334,831	22,032	18,599	(NA)	
33524 00	Rolled aluminum rod, bar, and shapes, n.s.k.....	(NA)	(X)	154	(X)	154	-	-	(NA)	
33525	Extruded aluminum rod, bar, and other extruded shapes, except tube.....	(NA)	(X)	397,295	(X)	373,884	(X)	23,411	(NA)	
	Extruded rod and bar:									
33525 15	Alloys other than 2,000 and 7,000 series.....	(NA)	37,090	32,268	40,658	36,977	6,827	4,812	(NA)	
33525 18	Alloys in 2,000 and 7,000 series..	(NA)	10,395	9,521					(NA)	
	Other extruded shapes, except tube:									
33525 25	Alloys other than 2,000 and 7,000 series.....	(NA)	364,473	310,784	365,158	334,831	22,032	18,599	(NA)	
33525 28	Alloys in 2,000 and 7,000 series..	(NA)	22,717	42,646					(NA)	
33525 00	Extruded rod, bar, and other extruded shapes, except tube,n.s.k.	(NA)	(X)	2,076	(X)	2,076	-	-	(NA)	
33526	Aluminum tube.....	(NA)	(X)	139,172	(X)	127,535	(X)	11,637	(NA)	
33526 51	Extruded.....	(NA)	75,087	64,396	133,437	126,716	9,843	11,637	(NA)	
33526 53	Drawn.....	(NA)	44,697	55,070					(NA)	
33526 55	Welded.....	(NA)	23,496	18,887	(X)	819	-	-	(NA)	
33526 00	Aluminum tube, n.s.k.....	(NA)	(X)	819					(NA)	
33527 11	Aluminum ingot <sup>7 8</sup> .....	(NA)	86,242	49,024	(D)	(D)	(D)	(D)	(NA)	(D)
33528 11	Aluminum extrusion billet <sup>7 8</sup> .....	(NA)	108,965	48,745	64,219	26,605	44,746	22,140	(NA)	16,249
33520 00	Aluminum rolling and drawing, n.s.k...	(NA)	(X)	11,704	(X)	11,704	-	-	(NA)	(X)
1958										
3351--	COPPER ROLLING AND DRAWING (BRASS MILL SHAPES), TOTAL <sup>3</sup> .....	(X)	(NA)	1,034,397	(X)	(NA)	(X)	(NA)	(X)	(X)
33511	Copper wire, bare and tinned (non-electrical).....	(D)	45,383	47,864	39,733	42,988	5,650	4,858	(D)	(D)
33511 11	Unalloyed.....	(D)	8,836	7,386	6,697	5,673	2,139	1,695	(D)	(D)
33511 31	Alloyed.....	(D)	36,547	40,478	33,036	37,315	3,511	3,163	(D)	(D)

See footnotes at end of table.



**TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Receipts <sup>1</sup>	Total shipments including interplant transfers <sup>2</sup>		Commercial shipments		Interplant transfers		Produced and consumed in the same plant in the manufacture of other products	Shipments of products manufactured from materials owned by others		
			Quantity	Value	Quantity	Value	Quantity	Value				
											(short tons)	(short tons)
		(short tons)	(short tons)	(\$1,000)	(short tons)	(\$1,000)	(short tons)	(\$1,000)	(short tons)	(short tons)		
		1958--Continued										
3351- --	COPPER ROLLING AND DRAWING (BRASS MILL SHAPES)—Continued											
33512 --	Copper mill shapes.....	(NA)	(NA)	986,551	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)		
33512 11	Unalloyed:								3,131	262,420		
33512 13	Rod, bar, and shapes.....	498,313	272,562	170,294	164,498	109,625	108,064	60,669			8,086	
33512 16	Flat products (sheet, strip, plate, etc.).....	(D)	64,911	64,421	60,783	62,106	4,128	2,315				(D)
33512 18	Pipe and tube, plumbing.....	19,507	221,503	260,807	210,694	251,952	10,809	8,855				
33512 32	Other pipe and tube.....								(NA)	249,036		169,706
33512 35	Alloyed:											
33512 36	Rod, bar, and shapes.....	(D)	223,408	213,310	194,788	189,730	28,620	23,580		(D)		
33512 38	Flat products (sheet, strip, plate), including military cups and disks.....	11,697	82,599	104,979	79,908	102,378	2,691	2,601	(NA)	4,241		
33512 00	Pipe and tube, plumbing.....										(NA)	(NA)
3352- --	ALUMINUM ROLLING AND DRAWING, TOTAL <sup>4</sup> .....	(X)	(X)	1,472,252	(X)	(NA)	(X)	(NA)	(X)	(X)		
33521 --	Aluminum and aluminum-base alloy wire and cable (including ACSR).....	(NA)	131,130	100,921	(NA)	(NA)	(NA)	(NA)	(NA)	(D)		
33571 --												
33521 --	Made in aluminum rolling mills (industry 3352).....	(NA)	55,440	46,896	53,460	44,625	1,980	2,271	(NA)	(D)		
33571 --	Made in nonferrous wire drawing (industry 3357) and other industries.....	(NA)	75,690	54,025	67,266	46,826	8,424	7,199	(NA)	(D)		
33521 11	Bare wire conductor.....	(NA)	17,776	13,395	9,479	6,346	8,297	7,049	(NA)	(D)		
33571 11												
33521 51	Bare wire, other than conductor...	(NA)	20,746	25,134	18,639	22,713	2,107	2,421	(NA)	-		
33571 51												
33521 11	Made in aluminum rolling mills: Bare wire conductor.....	(NA)	14,087	17,372	12,107	15,101	1,980	2,271	(NA)	(D)		
33521 51											Bare wire, other than conductor.	
33571 11	Made in nonferrous wire drawing and other industries: Bare wire conductor.....	(NA)	24,435	21,157	16,011	13,958	8,424	7,199	(NA)	(D)		
33571 51											Bare wire, other than conductor.	
33521 61	Aluminum cable-steel reinforced (ACSR) and other bare aluminum cable.....	(NA)	592,608	62,392	(NA)	(NA)	(NA)	(NA)	(NA)	(D)		
33571 81												
33521 61	Made in aluminum rolling mills..	(NA)	41,353	29,524	(NA)	(NA)	(NA)	(NA)	(NA)	(D)		
33571 81	Made in nonferrous wire drawing and other industries.....	(NA)	51,255	32,868	(NA)	(NA)	(NA)	(NA)	(NA)	(D)		

See footnotes at end of table.

TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Receipts <sup>1</sup>	Total shipments including interplant transfers <sup>2</sup>		Commercial shipments		Interplant transfers		Produced and consumed in the same plant in the manufacture of other products	Shipments of products manufactured from materials owned by others
			Quantity	Value	Quantity	Value	Quantity	Value		
			(short tons)	(\$1,000)	(short tons)	(\$1,000)	(short tons)	(\$1,000)		
1958--Continued										
3352- --	ALUMINUM ROLLING AND DRAWING—Continued									
33522 --	Aluminum plate and sheet (including foil stock).....	(NA)	(NA)	646,064	(NA)	(NA)	(NA)	(NA)	(NA)	31,747
33522 13	Plate (.250" and over): Heat-treatable.....	(NA)	32,641	36,227	27,513	31,604	5,128	4,623	(NA)	
33522 15	Nonheat-treatable.....	(NA)	20,378	19,353	15,747	15,687	4,631	3,666	(NA)	
33522 23	Sheet: Flat, heat-treatable.....	(NA)	59,217	67,004	(D)	(D)	(D)	(D)	(NA)	
33522 25	Flat, nonheat-treatable.....	(NA)	179,290	163,938	160,290	147,792	19,000	16,146	(NA)	
33522 27	Coiled, heat-treatable.....	(NA)	5,917	5,893	5,917	5,893	-	-	(NA)	
33522 28	Coiled, nonheat-treatable.....	(NA)	335,017	276,002	286,766	238,232	48,251	37,770	(NA)	
33522 51	Foil stock.....	(NA)	105,696	74,545	22,404	16,177	83,292	58,368	(NA)	
33522 00	Aluminum plate and sheet, n.s.k.....	(NA)	(NA)	3,102	(NA)	(NA)	(NA)	(NA)	(NA)	
33523 --	Plain aluminum foil <sup>10</sup> .....	(NA)	692,756	140,472	(X)	(X)	(X)	(X)	(X)	
33523 11	Condenser foil.....	(NA)	3,457	7,104	(X)	(X)	(X)	(X)	(X)	
33523 15	All other plain foil.....	(NA)	68,998	96,581	(X)	(X)	(X)	(X)	(X)	
33523 21	Foil in lamination.....	(NA)	1120,301	1136,787	(X)	(X)	(X)	(X)	(X)	
33524 --	Rolled aluminum rod, bar (includes continuous cast) and structural shapes...	(NA)	135,610	110,523	(D)	(D)	(D)	(D)	(NA)	
33524 11	Aluminum rod and bar, rolled and continuous cast.....	(NA)	130,210	104,286	72,377	63,521	57,833	40,765	(NA)	
33524 31	Aluminum rolled structural shapes...	(NA)	5,400	6,237	(D)	(D)	(D)	(D)	(NA)	
33525 11	Extruded aluminum rod and bar and other extruded aluminum shapes (except tube)	(NA)	268,954	272,107	245,086	251,180	23,868	20,927	(NA)	
33526 --	Aluminum tube and other rolled, drawn, or extruded mill products.....	(NA)	72,115	89,555	(D)	(D)	(D)	(D)	(NA)	
33526 51	Extruded.....	(NA)	33,185	38,869	(D)	(D)	(D)	(D)	(NA)	
33526 53	Drawn.....	(NA)	31,832	44,240	(D)	(D)	(D)	(D)	(NA)	
33526 55	Welded.....	(NA)	7,098	6,446	(D)	(D)	(D)	(D)	(NA)	
33520 --	Aluminum-base alloys and aluminum and aluminum-base alloy mill products (rolled, drawn, and extruded), n.s.k..	(NA)	(X)	112,610	(X)	(NA)	(X)	(NA)	(X)	(NA)
33520 11	Aluminum-base alloys <sup>8 12</sup> .....	(NA)	186,791	101,739	101,615	54,343	85,176	47,396	(X)	(NA)
33520 00	Aluminum and aluminum-base alloy mill products, n.s.k.....	(X)	(X)	10,871	(X)	(NA)	(X)	(NA)	(X)	(X)
			Total shipments including interplant transfers <sup>2</sup>		Commercial shipments		Interplant transfers			
			Quantity	Value	Quantity	Value	Quantity	Value		
			(short tons)	(\$1,000)	(short tons)	(\$1,000)	(short tons)	(\$1,000)		
1963										
3356- --	ROLLING, DRAWING, AND EXTRUDING OF NONFERROUS METALS, EXCEPT COPPER AND ALUMINUM, TOTAL.....	(X)		630,536	(X)	(NA)	(X)		(NA)	
33560 43	Magnesium and magnesium-base alloy mill shapes: <sup>13</sup>	}	12,775	20,719	(D)	(D)	(D)	(D)	(D)	(D)
33560 44	Extruded shapes, including rod and bar.....									
	Other (sheet, plate, etc.), excluding powder.....									

See footnotes at end of table.



**TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers <sup>2</sup>		Commercial shipments		Interplant transfers	
		Quantity	Value	Quantity	Value	Quantity	Value
		(short tons)	(\$1,000)	(short tons)	(\$1,000)	(short tons)	(\$1,000)
		1963--Continued					
3356- --	ROLLING, DRAWING, AND EXTRUDING OF NONFERROUS METALS, EXCEPT COPPER AND ALUMINUM--Continued						
	Lead and lead-base alloy mill shapes:						
33560 51	Plate, sheet, and strip.....	24,295	7,643	(D)	(D)	(D)	(D)
33560 55	Pipe and tubing, traps and bends.....	17,493	6,955	(D)	(D)	(D)	(D)
33560 59	Other rolled, drawn, or extruded lead products.....	22,287	12,810	(D)	(D)	(D)	(D)
	Nickel and nickel-base alloy mill shapes including monel:						
33560 61	Plate, sheet, and strip, excluding monel.....	10,669	35,574	(D)	(D)	(D)	(D)
33560 63	Pipe and tubing, excluding monel.....	5,334	23,570	(D)	(D)	(D)	(D)
33560 65	Monel, all shapes and forms.....	37,090	103,416	(D)	(D)	(D)	(D)
33560 69	Rod, bar, and other, excluding monel. }						
33560 71	Zinc and zinc-base alloy mill shapes, including plate, sheet, strip, rods, bars, pipe, and tubing.....	34,945	16,042	(D)	(D)	(D)	(D)
	Titanium: <sup>14</sup>						
33560 74	Forging and extrusion billet.....	2,348	14,496	(D)	(D)	(D)	(D)
33560 72	Ingot.....	(NA)	66,888	(D)	(D)	(D)	(D)
33560 79	Other titanium mill products (sheet, plate, tubing, bar, etc.)..... }						
33560 83	Precious metal mill shapes, including gold, silver, and platinum.....	(NA)	193,439	(D)	(D)	(D)	(D)
33560 92	Other nonferrous metal wire, total.....	(NA)	45,600	(D)	(D)	(D)	(D)
33573 11							
33560 92	Made in rolling and drawing, n.e.c. (industry 3356).....	(NA)	12,415	(D)	(D)	(D)	(D)
33573 11	Made in nonferrous wire drawing (industry 3357) and other industries	(NA)	<sup>15</sup> 33,185	(D)	(D)	(D)	(D)
33560 98	Other nonferrous metals.....	(NA)	67,193	(D)	(D)	(D)	(D)
33560 00	Rolling and drawing, n.e.c., n.s.k.....	(X)	16,191	(X)	(NA)	(X)	(NA)
		1958					
3356- --	ROLLING, DRAWING, AND EXTRUDING OF NONFERROUS METALS, EXCEPT COPPER AND ALUMINUM, TOTAL.....	(NA)	428,210	(NA)	(NA)	(NA)	(NA)
	Magnesium and magnesium-base alloys: <sup>13</sup>						
33560 41	Plate, sheet, and strip.....	9,564	19,879	5,336	10,465	4,228	9,414
33560 45	Extruded shapes (including forging stock)..... }						
	Lead and lead-base alloys:						
33560 51	Plate, sheet, and strip.....	19,005	6,432	(D)	(D)	(D)	(D)
33560 55	Pipe and tubing, traps, and bends.....	21,580	7,992	(D)	(D)	(D)	(D)
33560 59	Other rolled, drawn, or extruded lead products.....	8,067	5,491	(D)	(D)	(D)	(D)
	Nickel and nickel-base alloys(including monel):						
33560 61	Plate, sheet, and strip (excluding monel).....	8,124	29,086	(D)	(D)	(D)	(D)
33560 63	Pipe and tubing (excluding monel)....	3,543	12,386	(D)	(D)	(D)	(D)
33560 65	Monel, all shapes and forms.....	28,183	69,987	(D)	(D)	(D)	(D)
33560 69	Other, excluding monel (including rods and bars)..... }						
33560 71	Zinc and zinc-base alloys (including plate, sheet, strip, rods, bars, pipe, and tubing).....	36,536	15,614	34,973	15,137	1,563	477
	Titanium: <sup>14</sup>						
33560 72	Ingot.....	(NA)	14,765	(D)	(D)	(D)	(D)
33560 75	Mill products (sheet, plate, tubing, bar, etc.).....	(NA)	55,916	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 6A-1. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers <sup>2</sup>		Commercial shipments		Interplant transfers				
		Quantity	Value	Quantity	Value	Quantity	Value			
		(short tons)	(\$1,000)	(short tons)	(\$1,000)	(short tons)	(\$1,000)			
		1958--Continued								
3356- --	ROLLING, DRAWING, AND EXTRUDING OF NONFERROUS METALS, EXCEPT COPPER AND ALUMINUM—Continued									
33560 81 33573 11	Other nonferrous metal wire.....	(NA)	33,177	(NA)	(D)	(NA)			(D)	
33560 81	Made in rolling and drawing, n.e.c., (industry 3356).....	(NA)	7,850	(D)	(D)	(D)			(D)	
33573 11	Made in nonferrous wire drawing (industry 3357) and other industries	(NA)	<sup>16</sup> 25,327	(NA)	(D)	(NA)			(D)	
33560 91	Other nonferrous metals.....	(NA)	143,205	(NA)	(NA)	(NA)			(D)	
33560 00	Other nonferrous metals, n.s.k.....	(NA)	14,280	(NA)	(NA)	(NA)			(NA)	
		Receipts <sup>1</sup>	Total shipments including interplant transfers <sup>2</sup>		Commercial shipments		Interplant transfers		Produced and consumed in the same plant in the manufacture of other products	Shipments of products manufactured from materials owned by others
			Quantity	Value	Quantity	Value	Quantity	Value		
			(short tons)	(\$1,000)	(short tons)	(\$1,000)	(short tons)	(\$1,000)		
		1963								
3357- --	NONFERROUS WIRE DRAWING, ETC., TOTAL.....	(NA)	(NA)	2,185,011	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
33571 -- 33521 --	Aluminum and aluminum-base alloy wire and cable (including ACSR) <sup>17</sup> .....	(NA)	191,794	127,948	180,819	118,814	10,975	9,134	(D)	(D)
33572 --	Copper and copper-base alloy wire (including strand and cable) bare, and tinned for electrical transmission....	(X)	(X)	244,979	(X)	(X)	(X)	(X)	(X)	(X)
33572 11	Wire, unalloyed for electrical transmission <sup>18</sup> .....	} 23,302	230,082	181,298	145,845	114,900	84,237	66,398	} 365,474	7,496
33572 51	Wire, alloyed for electrical transmission <sup>18</sup> .....		(NA)	7,221	(D)	(D)	(D)	(D)		
33572 71	Strand and cable.....		62,135	55,926	45,036	41,637	17,099	14,289		
33572 00	Copper and copper-base alloy wire, n.s.k.....		(X)	(X)	534	(X)	(X)	(X)		
		1958								
3357- --	NONFERROUS WIRE DRAWING, ETC., TOTAL.....	(NA)	(NA)	1,634,961	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
33571 -- 33521 --	Aluminum and aluminum-base alloy wire and cable (including ACSR) <sup>17</sup> .....	(NA)	131,130	100,921	(NA)	(NA)	(NA)	(NA)	(NA)	(D)
33572 --	Copper and copper-base alloy wire (including strand and cable), bare, and tinned, for electrical transmission	(NA)	(NA)	156,493	(D)	(D)	(D)	(D)	(D)	(D)
33572 11	Wire, unalloyed for electrical transmission.....	3,887	172,920	131,117	89,477	74,243	83,443	56,874	438,061	4,355
33572 51	Wire, alloyed, for electrical transmission.....	(NA)	5,185	4,575	4,376	3,818	809	757	28,350	-
33572 71	Strand and cable.....	(NA)	23,874	20,375	9,664	9,665	14,210	10,710	(D)	(D)
33572 00	Other copper and copper-base alloy wire, n.s.k.....	(X)	(X)	426	(X)	(NA)	(X)	(NA)	(X)	(X)

See footnotes at end of table.



TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3357- --	NONFERROUS WIRE DRAWING, ETC.—Continued					
33573 pt. 33560 pt.	Other bare nonferrous metal wire, except insulated <sup>19</sup> .....	.....	(NA)	45,600	(X)	33,177
33575 -- 34815 --	Nonferrous wire cloth and other woven nonferrous wire products....	.....	(X)	70,487	(X)	<sup>20</sup> 59,096
33575 --	Made in industry 3357 (nonferrous wire drawing, etc.).....	.....	(X)	21,231	(X)	9,983
34815 --	Made in fabricated wire products, n.e.c., (industry 3481) and other industries.....	.....	(X)	49,256	(X)	49,113
	Insect wire screening:					
33575 25 34815 15	Aluminum.....	1,000 sq. ft..	459,123	21,216	305,356	18,239
33575 25 34815 15	Made in industry 3357.....	...do.....	188,096	7,256	107,875	6,478
33575 23 34815 13	Made in industry 3481 and other industries.....	...do.....	271,027	15,960	197,481	11,761
33575 29 34815 19	Copper and copper-base alloy.....	...do.....	(NA)	804	(NA)	2,921
33575 51 34815 51	All other nonferrous metal.....	...do.....			( <sup>20</sup> )	( <sup>20</sup> )
33575 65 34816 65	Paper machine wire cloth (fourdrinier and cylinder).....	...do.....	24,600	36,586	22,976	30,902
33575 00 34815 00	Industrial wire cloth, nonferrous.....	...do.....	12,484	8,836	<sup>21</sup> 8,496	7,034
33575 00 34815 00	Nonferrous wire cloth and other woven nonferrous wire products, n.s.k.....	.....	(X)	3,045	(X)	( <sup>22</sup> )
33574 --	Communication wire and cable.....	.....	(X)	<sup>23</sup> 581,781	(X)	365,373
	Metal content of the conductors in communication wire and cable reported by detail type below:					
33574 01 33574 05	Copper.....	1,000 lbs.....	376,653	(X)	(NA)	(X)
	Aluminum.....	...do.....	14,176	(X)	(NA)	(X)
	Coaxial cable (armored and nonarmored):					
33574 11 33574 12	Rigid plus semiflexible.....	.....	(X)	32,086	(X)	15,133
	Flexible.....	.....	(X)	46,791		
33574 22	Lead-in wire.....	.....	(X)	9,310	(X)	31,023
	Hook-up wire (single and multiconductor):					
33574 24 33574 26	200°C and over temperature rating.....	.....	(X)	24,353		
	Under 200°C temperature rating.....	.....	(X)	15,187		
33574 41 33574 52 33574 55 33574 71	Jumper and distributing frame wire, including bank, handformed, pushback.....	.....	(X)	5,874	(X)	12,186
	Inside wiring cable.....	.....	(X)	14,778		
	Drop and bridle and duct wire and cable.....	.....	(X)	12,605		
	Switchboard wire and cable.....	.....	(X)	42,831	(X)	22,629
	Lead-covered telephone cable, except coaxial:					
33574 73 33575 75	Paper and pulp insulated.....	.....	(X)	11,035	(X)	52,438
	Polyethylene insulated.....	.....				
	Polyethylene covered telephone cable and telegraph cable, excluding coaxial:					
33574 81 33574 85	Paper and pulp insulated.....	.....	(X)	244,576	(X)	60,890
	Polyethylene insulated.....	.....			(X)	92,945
33574 27 33574 68 33574 43 33574 98 33574 00	Instrumentation wire and cable.....	.....	(X)	18,295	(X)	50,505
	Rural and urban distribution wire and cable.....	.....	(X)	19,841		
	Station wire and cable.....	.....	(X)	81,529		
	Other communication wire and cable.....	.....	(X)	2,670	(X)	2,486
	Communication wire and cable, n.s.k.....	.....	(X)			
33577 --	Magnet wire.....	.....	(X)	<sup>23</sup> 258,308	(X)	183,382
	Metal content of magnet wire reported by detail type below:					
33577 01 33577 05	Copper.....	1,000 lbs.....	372,847	(X)	(NA)	(X)
	Aluminum.....	...do.....	(D)	(X)	(NA)	(X)

See footnotes at end of table.

TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3357- --	NONFERROUS WIRE DRAWING, ETC.—Continued					
33577 --	Magnet wire--continued					
33577 11	Round enameled, under 180°C.....	1,000 lbs. gross weight..	113,743	67,642		
33577 13	Round enameled, 180°C and over, including aromatic polyimide but excluding fluorocarbon and ceramic.....	..do.....	20,295	12,730		
33577 15	Round textile covered-bare and enameled, including synthetic.....	..do.....	8,186	7,739		
33577 17	Round asbestos or glass insulated-bare and enameled, including synthetic.....	..do.....	2,119	2,508		
33577 18	Round class A 105C (vinyl acetal, vinyl acetal with nylon and acrylic).....	..do.....	98,241	58,187		
33577 31	Round classes B and F, 130-155C (polyester, epoxy, and acrylic)...	..do.....	42,125	24,499	(X)	179,354
33577 33	Round solderable class A 105C (nylon polyurethane and cellulose acetate).....	..do.....	51,526	34,320		
33577 35	Round self-bonding class A 105C (vinyl acetal plus a bonding thermoplastic).....	..do.....	12,234	8,761		
33577 37	Rectangular and square film coated with or without covering.....	..do.....	34,732	18,641		
33577 38	Rectangular and square paper and/or cotton, no film.....	..do.....	17,812	8,868		
33577 41	Rectangular and square glass, dacron glass, or asbestos, no film.	..do.....	10,040	6,570		
33577 43	Ceramic and fluorocarbon magnet wire.....	..do.....	44	488		
33577 98	Other magnet wire.....		(X)	7,355	(X)	4,028
33577 00	Magnet wire, n.s.k.....					
33578 --	Power wire and cable.....		(X)	23218,810	(X)	194,761
	Metal content of power wire and cable reported by detailed type below:					
33578 01	Copper.....	1,000 lbs.....	179,452	(X)	(NA)	(X)
33578 05	Aluminum.....	..do.....	(D)	(D)	(NA)	(X)
	Under 601 volts:					
33578 11	Portable power cable.....		(X)	28,417	(X)	19,705
33578 13	Varnished cloth insulated, including glass.....		(X)	2,169	(X)	3,280
33578 15	Thermoplastic.....		(X)	18,123	(X)	11,202
33578 17	Rubber.....		(X)	46,558	(X)	55,808
33578 18	Asbestos and asbestos-varnished cloth.....		(X)	7,643	(X)	5,737
33578 14	Thermosetting insulated.....		(X)	10,591		
33578 19	Other, including machine tool wire.....		(X)	5,668	(X)	1,740
	601 volts and higher:					
33578 31	Portable power cable.....		(X)	5,958	(X)	5,751
33578 33	Varnished cloth insulated, including glass.....		(X)	3,120	(X)	6,581
33578 35	Paper insulated.....		(X)	48,621	(X)	39,146
33578 37	Rubber.....		(X)	22,357	(X)	37,903
33578 38	Thermoplastic.....		(X)	9,129	(X)	5,359
33578 36	Thermosetting insulated.....		(X)	7,096		
33578 39	Other power wire and cable, 601 volts and higher.....		(X)	1,458	(X)	2,549
33578 00	Power wire and cable, n.s.k.....		(X)	1,902	(X)	-
33579 --	Other insulated wire and cable.....		(X)	23454,071	(X)	404,512
	Metal content of other insulated wire and cable reported by detail type below:					
33579 01	Copper.....	1,000 lbs.....	422,280	(X)	(NA)	(X)
33579 05	Aluminum.....	..do.....	56,312	(X)	(NA)	(X)
33579 08	Service cable, including self supports but excluding service entrance and service drop cable.....		(X)	8,660	(X)	28,053
33579 11	Signal wire and cable.....		(X)	10,290	(X)	7,411
33579 15	Control wire and cable.....		(X)	23,476	(X)	21,742
	Weather-proof and service drop cable:					
33579 31	Braided.....		(X)	9,750	(X)	16,478
33579 37	Polychloroprene (neoprene).....		(X)	9,232	(X)	11,527
33579 38	Thermoplastic.....		(X)	10,388		
33579 39	Service drop.....		(X)	21,269	(X)	9,983
	Building wire and cable having underwriters' labels (except varnished cambric insulated and service cable):					
33579 41	Rubber insulated.....		(X)	50,767	(X)	56,653
33579 42	Metallic armored cable.....		(X)	16,468	(X)	16,610
33579 43	Nonmetallic sheathed cable.....		(X)	81,675	(X)	66,330
33579 46	Service entrance cable.....		(X)	19,952	(X)	18,109
33579 48	Thermoplastic.....		(X)	97,582	(X)	52,844
33579 49	Other building wire and cable (except varnished cambric insulated).....		(X)	5,209	(X)	10,118

See footnotes at end of table.



TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3357- --	NONFERROUS WIRE DRAWING, ETC.—Continued					
33579 --	Other insulated wire and cable--Continued					
	Automotive, airframe, shipboard, and ground support cable, excluding coaxial cable:					
33579 89	Shipboard cable (Navy and Merchant Marine).....		(X)	17,534	(X)	10,187
33579 71	Automotive.....		(X)	15,826		
33579 74	Airframe and missile.....		(X)	11,195		
33579 91	Missile ground support cable.....		(X)	9,567		
33579 98	Other insulated wire and cable.....		(X)	26,590	(X)	77,543
33579 00	Other insulated wire and cable, n.s.k.....		(X)	8,641		
33576 --	Appliance wire and cord and flexible cord sets.....		(X)	167,664	(X)	127,069
36996 --						
33576 --	Made in nonferrous wire drawing etc., (industry 3357).....		(X)	101,667	(X)	66,199
36996 --	Made in electric products, n.e.c., (industry 3699) and other industries.....		(X)	65,997	(X)	60,870
	Flexible cord sets (including heater cord):					
33576 13	Rubber insulated.....		(X)	25,794	(X)	24,481,69
36996 13						
33576 13	Made in nonferrous wire drawing etc., (industry 3357).....		(X)	11,221	(X)	24,20,881
36996 13	Made in electric products, n.e.c., (industry 3699) and other industries.....		(X)	14,573	(X)	24,27,288
33576 15	Thermoplastic insulated.....		(X)	39,957	(X)	(24)
36996 15						
33576 15	Made in nonferrous wire drawing etc., (industry 3357).....		(X)	19,027	(X)	(24)
36996 15	Made in electric products, n.e.c., (industry 3699) and other industries.....		(X)	20,933	(X)	(24)
	Appliance wire and cord:					
33576 21	Fixture wire (including heater resistant).....		(X)	18,153	(X)	8,405
36996 21						
33576 21	Made in nonferrous wire drawing etc., (industry 3357).....		(X)	15,270	(X)	6,549
36996 21	Made in electric products, n.e.c., (industry 3699) and other industries.....		(X)	2,883	(X)	1,846
	Flexible cord (including heater cord):					
33576 22	Rubber insulated.....		(X)	22,766	(X)	16,205
36996 22						
33576 22	Made in nonferrous wire drawing etc., (industry 3357).....		(X)	20,793	(X)	14,825
36996 22	Made in electric products, n.e.c., (industry 3699) and other industries.....		(X)	1,973	(X)	1,380
33576 25	Thermoplastic insulated.....		(X)	26,862	(X)	10,925
36996 25						
33576 25	Made in nonferrous wire drawing etc., (industry 3357).....		(X)	22,187	(X)	9,829
36996 25	Made in electric products, n.e.c., (industry 3699) and other industries.....		(X)	4,675	(X)	1,096
33576 29	Other appliance wire and cord.....		(X)	24,276	(X)	36,173
36996 29						
33576 29	Made in nonferrous wire drawing etc., (industry 3357).....		(X)	7,713	(X)	11,481
36996 29	Made in electric products, n.e.c., (industry 3699) and other industries.....		(X)	16,563	(X)	24,692
33576 00	Appliance wire and cord and flexible cord sets, n.s.k.....		(X)	9,856	(X)	7,192
36996 00						
33576 00	Made in nonferrous wire drawing etc., (industry 3357).....		(X)	5,459	(X)	2,634
36996 00	Made in electric products, n.e.c., (industry 3699) and other industries.....		(X)	4,397	(X)	4,558
33570 00	Drawn and insulated nonferrous wire, n.s.k.....		(X)	15,363	(X)	10,177
3361- --	ALUMINUM CASTINGS, TOTAL.....		(X)	607,028	(X)	399,605
	Aluminum and aluminum-base alloy castings (except cast aluminum cooking utensils): <sup>25</sup>					
33610 11	Sand.....	Short tons.....	76,149	146,317	50,569	101,680
33610 31	Permanent and semipermanent mold.....	..do.....	97,358	113,362	71,963	82,048
33610 41	Die.....	..do.....	238,349	266,710	106,234	142,345
33610 51	Investment.....	..do.....	688	9,703	197	2,698
33610 61	Other.....	..do.....	(NA)	21,346	(NA)	15,069
	Cast aluminum finished products:					
33610 71	Pressure cookers, household (except electric).....		(X)	10,116	(X)	7,633
33610 75	Cast aluminum cooking utensils (except electric).....					
33610 00	Aluminum and aluminum-base alloy castings, n.s.k.....		(X)	39,474	(X)	48,132

See footnotes at end of table.

TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3362- --	BRASS, BRONZE, COPPER CASTINGS, TOTAL.....	.....	(X)	299,769	(X)	222,755
	Copper and copper-base alloy castings (except bearings and bushings): <sup>25</sup>					
33620 11	Sand.....	Short tons....	139,296	191,952	116,359	148,270
33620 31	Permanent and semipermanent mold.....	...do.....	7,225	13,912	3,584	7,301
33620 41	Die.....	...do.....	3,236	7,383	1,117	2,533
33620 51	Investment.....	...do.....	(NA)	4,013	234	3,754
33620 61	Other.....	...do.....	14,041	21,386	4,999	10,928
33620 71	Copper-base alloy bearings and bushings, nonmachined.....	.....	(X)	39,052	(X)	21,205
33620 00	Copper and copper-base alloy castings, n.s.k.....	.....	(X)	22,071	(X)	28,764
3369- --	NONFERROUS CASTINGS, N.E.C. TOTAL <sup>25</sup> .....	.....	(NA)	306,484	(NA)	233,236
	Magnesium and magnesium-base alloy castings:					
33690 11	Sand.....	Short tons....	5,018	31,256	7,782	44,353
33690 31	Die.....	.....	(NA)	7,704	(NA)	4,532
33690 33	Cast anodes.....	.....	(NA)	5,195	(NA)	4,577
33690 41	Other, including permanent and semipermanent.....	.....	(NA)		(NA)	
	Zinc and zinc-base alloy castings:					
33690 51	Die.....	Short tons....	186,225	201,857	119,783	132,897
33690 61	Other.....	.....	(NA)	4,518	(NA)	702
33690 71	Lead and lead-base alloy die castings.....	.....	(NA)	6,736	(NA)	3,737
33690 98	Other nonferrous metal castings, including die castings.....	.....	(NA)	35,511	(NA)	32,661
33690 00	Nonferrous castings, n.e.c., n.s.k.....	.....	(X)	13,707	(X)	9,777

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Represents receipts for nonferrous metal mills and nonferrous wire drawing establishments.

<sup>2</sup>Includes shipments of these products produced on a toll basis by others.

<sup>3</sup>Data are also shown in Current Industrial Reports Series BDSAF-84, "Shipments of Copper-Base Mill and Foundry Products." See table 6A-2.

<sup>4</sup>Data are also shown in Current Industrial Reports Series M33-2, "Aluminum Ingot and Mill Products." See table 6A-2.

<sup>5</sup>Data for ACSR and aluminum cable, bare, are also published monthly in Current Industrial Reports Series M33-2, "Aluminum Ingot and Mill Products." Net quantity of shipments as reported in this series for the year 1963 and 1958 totaled 136,127, and 87,424 short tons, respectively. However, these quantities represent aluminum content only. The 149,100 short tons and 92,608 short tons reported in the census of manufactures for 1963 and 1958, respectively, represent gross weight.

<sup>6</sup>Differs from quantity data published in Current Industrial Reports Series M33-2, "Aluminum Ingot and Mill Products," in that no data are included in the plain aluminum foil figures for that quantity of plain foil which is produced and converted in the same establishment. As shown in Current Industrial Reports, net shipments of aluminum foil totaled 161 thousand short tons in 1963 and 100 thousand short tons in 1958.

<sup>7</sup>Represents aluminum ingot and aluminum extrusion billet made only by establishments classified in industry 3352, Aluminum Rolling and Drawing. Comparable shipments for plants classified in industries 3334, Primary Aluminum, and 3341, Secondary Nonferrous Metals, and other industries are as follows:

Item	Total shipments		Other companies		Interplant transfers					
	Quantity (short tons)	Value (\$1,000)	Quantity (short tons)	Value (\$1,000)	Quantity (short tons)	Value (\$1,000)				
Aluminum ingot:										
Industry 3334.....	2,118,607	946,808	965,303 (NA)	426,741 (NA)	1,153,304 (NA)	520,067 (NA)				
Industry 3341.....	540,522	230,687								
All other industries.....	9,573	8,185								
Aluminum extrusion billet:										
Industry 3334.....	272,092	122,798	193,561 32,976	86,244 13,935	78,531 -	36,554				
Industry 3341.....	32,976	13,935								
All other industries.....										

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

The figures in the table above differ significantly from those published in the preliminary report for this industry, in that the latter report included the activities of other industries.

<sup>8</sup>Most of the aluminum ingot and billet (alloys) produced by aluminum rolling mills represent duplication of tonnages reported by the primary aluminum industry in that metal produced by the rolling mills is made from ingot produced in primary aluminum plants.

<sup>9</sup>Excludes an unspecified amount of ACSR produced on a toll basis. This tonnage is included in the Current Industrial Reports.

<sup>10</sup>Quantity figures are shown in terms of metal weight.

<sup>11</sup>Laminated foil made from purchased aluminum foil, totaled 8,113 short tons metal content valued at \$17,497 thousand.

Footnotes continued on next page



**TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Footnotes for Table 6A-1-33D--Continued

<sup>12</sup>Represents aluminum-base alloys made only by establishments classified in industry 3352, Aluminum Rolling and Drawing. Comparable shipments for plants classified in industries 3334, Primary Aluminum, and 3341, Secondary Nonferrous Metals, and other industries are as follows:

Item	Total shipments		Other companies		Interplant transfers	
	Quantity (short tons)	Value (\$1,000)	Quantity (short tons)	Value (\$1,000)	Quantity (short tons)	Value (\$1,000)
Aluminum-base alloys:						
Industry 3334.....	508,189	260,838	156,525	82,463	351,664	178,375
Industry 3341.....	311,359	140,471	302,036	135,745	9,323	4,726
All other industries.....	10,704	4,647	10,704	4,647	-	-

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>13</sup>Data are also published in Current Industrial Series M33G, "Magnesium Mill Products." See table 6A-2.

<sup>14</sup>Data are also published in Current Industrial Series BDSAF-263, "Titanium Ingot and Mill Products." See table 6A-2.

<sup>15</sup>Includes \$25,831 thousand produced in industry 3357, Nonferrous Wire Drawing, Etc.

<sup>16</sup>Includes \$20,371 thousand produced in industry 3357, Nonferrous Wire Drawing, Etc.

<sup>17</sup>For detailed data see products of industry 3352, above.

<sup>18</sup>Production, including toll production, for these products totaled as follows: unalloyed wire for electrical transmission, 378,853; strand and cable, 264,151.

<sup>19</sup>For detailed data see products of industry 3356, above.

<sup>20</sup>For 1958, data for product code 3481519, Nonferrous metal insect wire screening, other than copper and copper-base alloy, and aluminum, are included with product code 3481498, Other wire cloth and woven wire products.

<sup>21</sup>This quantity was valued at \$5,599 thousand. The remaining \$1,435 thousand were reported without quantity.

<sup>22</sup>For 1958, data for product code 3481400, Wire cloth and woven wire products, not specified by kind, include data for product code 3481500, Nonferrous wire cloth and other nonferrous woven wire products, not specified by kind.

<sup>23</sup>Of these totals, the following represents the value of shipments of insulated wire and cable transferred from one plant of a company to another plant of the same company:

Product class code	Thousand dollars
33574	17,831
33577	67,146
33578	5,458
33579	12,185

<sup>24</sup>In 1958, product codes 3357615 and 3699615 are combined with codes 3357613 and 3699613, respectively.

<sup>25</sup>These data differ from the quantities published in Current Industrial Reports Series M33E, "Nonferrous Castings," in that no data are included for castings produced by captive foundry departments of plants classified in other industries. In addition, certain products are reported as castings in the monthly survey which in the census of manufactures are classified as finished products in other industries.

TABLE 6A-2. Net Shipments of Selected Nonferrous Metal Rolled, Drawn, and Extruded Products: 1958 to 1963

(Short tons)

Product	1963	1962	1961	1960	1959	1958
Copper-base mill products, total <sup>1 2</sup> .....	2,113,500	2,020,000	1,831,000	1,718,000	1,925,500	1,618,500
Copper mill (brass mill) products, total.....	1,232,500	1,178,500	1,034,000	939,000	1,110,500	894,500
Copper-base alloy:						
Sheet and strip <sup>3</sup> .....	286,500	282,000	257,000	240,000	298,500	235,500
Rod, bar, and wire.....	332,000	324,000	289,000	269,500	334,500	266,000
Tube and pipe.....	67,500	70,500	64,000	54,500	63,000	61,500
Unalloyed copper:						
Sheet and strip.....	118,500	110,500	97,500	87,500	96,000	77,500
Rod, bar, and wire.....	54,500	53,500	48,500	50,000	59,500	44,500
Tube and pipe.....	373,500	338,000	278,000	237,500	259,000	209,500
Copper wire mill products, total.....	855,500	818,000	777,000	760,500	792,500	707,500
Bare wire <sup>5</sup> .....	85,500	82,000	86,500	88,500	792,500	707,500
Insulated communication wire.....	222,000	185,000	179,500	191,000		
Other insulated wire.....	548,000	551,000	511,000	481,000		
Copper-base powder mill products, total.....	25,500	23,500	20,000	18,500	22,500	16,500
Copper-base alloy:					22,500	16,500
Granular.....	8,000	7,000	6,000	6,000		
Flake.....	2,000	2,000	2,000	2,000		
Unalloyed copper:					22,500	16,500
Granular.....	14,500	13,500	10,500	10,500		
Flake.....	1,000	1,000	1,500	1,000		
Aluminum mill products (including wire), total <sup>1 6</sup> .....	2,128,592	1,905,630	1,672,549	1,524,534	1,693,026	1,298,558
Sheet:						
Nonheat-treatable.....	813,256	680,909	7628,149	7601,711	7642,304	7472,202
Heat-treatable.....	82,578	78,636	8118,525	892,414	8115,646	8104,558
Plate:						
Nonheat-treatable.....	63,278	54,442	(7)	(7)	(7)	(7)
Heat-treatable.....	38,563	41,441	(8)	(8)	(8)	(8)
Foil (including foil in lamination).....	161,150	148,719	135,294	124,503	126,310	99,779
Rolled and continuous cast rod and bar.....	60,820	68,202	50,384	46,460	62,293	37,812
Wire, bare, conductor and nonconductor.....	28,813	27,512	26,318	27,706	32,296	22,114
ACSR and aluminum cable, bare.....	136,127	126,581	116,400	91,538	98,358	87,423
Wire and cable, insulated or covered.....	44,618	38,427	34,317	30,197	30,377	25,509
Extruded rod and bar:						
Alloys other than 2000 and 7000 series.....	30,547	27,398	9442,053	9406,044	9465,657	9346,762
Alloys in 2000 and 7000 series.....	5,123	6,298	1025,231	1019,426	1023,953	1024,920
Extruded pipe and tube:						
Alloys other than 2000 and 7000 series.....	75,131	69,734	(9)	(9)	(9)	(9)
Alloys in 2000 and 7000 series.....	3,027	2,614	(10)	(10)	(10)	(10)
Extruded shapes:						
Alloys other than 2000 and 7000 series <sup>11</sup> .....	435,351	391,119	(9)	(9)	(9)	(9)
Alloys in 2000 and 7000 series.....	27,076	22,421	(10)	(10)	(10)	(10)
Drawn tube:						
Alloys other than 2000 and 7000 series.....	32,748	39,213	32,001	30,160	36,473	29,911
Alloys in 2000 and 7000 series.....						
Welded tube, nonheat-treatable <sup>12</sup> .....	26,041	20,364	17,712	12,926	14,996	9,339
Powder and paste:						
Atomized.....	11,313	10,690	7,366	6,260	5,804	3,298
Flaked.....	2,163	2,707	2,544	2,102	2,696	1,858
Paste.....	8,928	8,446	8,033	8,063	8,942	7,658
Forgings (including impact extrusions).....	41,988	39,702	28,225	25,028	26,924	25,415

See footnotes at end of table.



**TABLE 6A-2. Net Shipments of Selected Nonferrous Metal Rolled, Drawn, and Extruded Products: 1958 to 1963—Continued**

Product	1963	1962	1961	1960	1959	1958
Magnesium mill products <sup>1</sup> .....	12,403	11,557	10,640	10,328	11,085	9,351
Titanium mill products <sup>1</sup> .....	6,112	6,521	<sup>13</sup> 5,147	<sup>13</sup> 5,071	<sup>13</sup> 3,211	<sup>13</sup> 2,594
Sheet, plate and strip.....	1,235	1,227	1,124	1,021	934	(X)
Pipe and tubing <sup>14</sup> .....	90	181	271			
Forging and extrusion billet.....	3,625	3,973	2,657	2,835	1,527	1,015
Rod, bar, wire, and extrusions (other than tubing) <sup>14</sup> .....	1,162	1,140	1,094	1,215	750	932
						647

Note: Net shipments are derived by subtracting receipts of mill shapes at producing mills from shipments (including quantities used at producing mills in the production of fabricated products) by such mills.

<sup>1</sup>Source: These data are derived from the following Current Industrial Reports Series:

Metal	Series	Title
Copper	BDSAF-84	Copper-Base Mill and Foundry Products
Aluminum	M33-2	Aluminum Ingot and Mill Products
Magnesium	M33G	Magnesium Mill Products
Titanium	BDSAF-263	Titanium Ingot and Mill Products

<sup>2</sup>Data represent metal weight, except for wire products, which are reported in copper content.

<sup>3</sup>Military ammunition cups and discs are included on a net weight basis, i.e., excluding the weight of the webbing scrap generated in the cupping and discing operation.

<sup>4</sup>Excludes electrical wire.

<sup>5</sup>Represents uninsulated, bare wire, tinned and/or alloy coated.

<sup>6</sup>Data represents aluminum and aluminum alloy content.

<sup>7</sup>For 1958-1961, nonheat-treatable plate is included with nonheat-treatable sheet.

<sup>8</sup>For 1958-1961, heat-treatable plate is included with heat-treatable sheet.

<sup>9</sup>For 1958-1961, extruded pipe and tube and extruded shapes of alloys other than 2000 and 7000 series, are included with extruded rod and bar of alloys other than 2000 and 7000 series.

<sup>10</sup>For 1958-1961, extruded pipe and tube and extruded shapes of alloys in the 2000 and 7000 series are included with extruded rod and bar of alloys in the 2000 and 7000 series.

<sup>11</sup>Includes a small amount of rolled structural shapes.

<sup>12</sup>Includes a small amount of heat-treatable welded tube.

<sup>13</sup>Data for 1958-1961 represent gross, rather than net shipments. Differences between gross and net shipments were measured for 1961 and were less than 1 percent for total mill shapes and less than 3 percent for each specific shape.

<sup>14</sup>For 1958-1962 all extrusions are included with pipe and tubing.

TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

Product code	Product and year	Indexes (1954 = 100)		Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value			Production	Unit value
335--	Nonferrous rolling and drawing....1963..	156	101	3356-	Rolling, drawing, and extruding of non-ferrous metals, except copper and aluminum.....1963..	168	104
	1958..	111	104		1958..	116	103
3351-	Copper rolling and drawing (brass mill shapes).....1963..	129	100	3357-	Nonferrous wire drawing, etc <sup>3</sup> .....1963..	146	103
	1958..	88	99		1958..	112	102
33511	Copper wire, bare and tinned (nonelectrical).....1963..	111	106	33571	Aluminum and aluminum-base alloy wire and cable (including ACSR) <sup>2</sup> ...1963..	160	104
	1958..	74	102	33521		109	118
33512	Copper mill shapes.....1963..	130	100	33572	Copper and copper-base alloy wire (including strand and cable), bare, and tinned, for electrical transmission.....1963..	138	103
	1958..	89	99		1958..	95	99
3352-	Aluminum rolling and drawing <sup>1</sup> .....1963..	214	98	33575	Nonferrous wire cloth and other woven wire products <sup>2</sup> .....1963..	188	91
	1958..	136	112	34815		164	95
33521	Aluminum and aluminum-base alloy wire and cable (including ACSR) <sup>2</sup> ...1963..	160	104	33577	Magnet wire.....1963..	137	109
33571		109	118		1958..	103	102
33522	Aluminum plate and sheet (including foil stock).....1963..	192	104	33578	Power wire and cable.....1963..	140	99
	1958..	130	119		1958..	126	102
33523	Plain aluminum foil (under .006")...1963..	290	94	336--	Nonferrous foundries.....1963..	138	105
	1958..	185	109		1958..	93	110
33524	Rolled aluminum rod, bar (including continuous cast) and structural shapes.....1963..	156	104	3361-	Aluminum castings.....1963..	174	92
	1958..	102	121		1958..	103	102
33525	Extruded aluminum rod, bar and other extruded shapes (except tube).....1963..	263	87	3362-	Brass, bronze, copper castings.....1963..	99	129
	1958..	163	96		1958..	77	123
33526	Aluminum tube.....1963..	221	82	3369-	Nonferrous castings, n.e.c.....1963..	125	110
	1958..	115	101		1958..	95	111

n.e.c. Not elsewhere classified.

<sup>1</sup>Adjusted to include aluminum ingot and aluminum extrusion billet made in aluminum rolling mills (product classes 33527 and 33528) which were not separately reported in the 1954-1958 period.<sup>2</sup>These indexes have been computed on a "wherever-made" basis--that is, they reflect the shipments of these products reported by establishments without regard to their plant specialization (industry classification).<sup>3</sup>Adjusted to include product classes for which separate indexes are not shown due to lack of adequate quantity information (note particularly the omission of product classes 33574, 33576 and 33579).



TABLE 6C. Product Classes—Value Shipped by All Manufacturing Establishments, 1947, 1954, 1958 to 1963

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3351-	Copper rolling and drawing.....	1,544,505	1,467,563	1,314,757	1,242,605	1,389,282	1,034,397	1,186,492	(NA)
33511	Copper and copper-base alloy wire, bare and tinned for purposes other than electrical transmission.....	73,150	58,870	56,176	54,548	63,843	47,846	62,952	(NA)
33512	Rolled drawn and extruded copper and copper-base alloy mill products.....	1,471,355	1,408,693	1,258,581	1,188,057	1,325,439	986,551	1,123,540	(NA)
3352-	Aluminum rolling and drawing.....	1,898,885	<sup>2</sup> 1,879,150	<sup>2</sup> 1,704,897	<sup>2</sup> 1,601,389	<sup>2</sup> 1,810,018	<sup>2</sup> 1,472,252	(NA)	(NA)
33521	Aluminum and aluminum-base alloy wire (including ACSR).....	127,948	154,908	135,292	121,203	115,498	100,921	79,023	(NA)
33571		850,459	836,336	746,515	701,453	798,377	646,064	420,266	293,436
33522		129,381	<sup>2</sup> 207,668	<sup>2</sup> 187,722	<sup>2</sup> 179,390	<sup>2</sup> 184,660	<sup>2</sup> 140,472	69,874	(NA)
33523	Plain aluminum foil.....	145,157	119,954	110,892	98,815	137,721	110,523	89,653	(NA)
33524	Rolled aluminum rod, bar, (including continuous cast) and structural shapes.....	397,295	340,812	333,429	314,215	348,810	272,107	173,374	(NA)
33525	Extruded aluminum rod, bar, and other extruded shapes, excluding tube.....	139,172	128,535	102,006	92,512	111,510	89,555	77,123	(NA)
33526	Aluminum tube and other rolled, drawn or extruded mill products.....	49,024	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
33527	Aluminum ingot, produced in aluminum rolling mills.....	48,745	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
33528	Aluminum extrusion billet, produced in aluminum rolling mills.....	11,704	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
33520	Aluminum rolling and drawing, n.s.k.....	630,536	<sup>3</sup> 548,587	<sup>3</sup> 534,685	<sup>3</sup> 482,901	<sup>3</sup> 495,360	428,210	355,602	130,612
33560	Rolled, drawn, and extruded nonferrous metal mill products (except copper and aluminum).....	2,185,011	(NA)	(NA)	(NA)	(NA)	1,634,961	(NA)	(NA)
3357-	Nonferrous wire drawing, etc.....	127,948	154,908	135,292	121,203	115,498	100,921	79,023	(NA)
33521	Aluminum and aluminum-base alloy wire and cable (including ACSR).....	244,979	231,470	195,267	189,661	203,675	156,493	167,168	(NA)
33571		45,600	(NA)	(NA)	(NA)	(NA)	<sup>4</sup> 92,273	(NA)	(NA)
33572		581,781	485,226	432,267	489,048	444,203	365,373	248,373	186,878
33573	Copper and copper-base alloy wire (including strand and cable) bare and tinned, for electrical transmission.....	70,487	(NA)	(NA)	(NA)	(NA)	( <sup>4</sup> )	(NA)	(NA)
33560pt	Other bare nonferrous metal wire, made in nonferrous wire drawing plants.....	167,664	159,215	146,659	145,129	149,809	127,069	108,609	(NA)
33574	Communication wire and cable.....	258,308	267,129	243,554	239,219	253,796	183,382	174,092	(NA)
33575	Nonferrous wire cloth and other woven wire products.....	218,810	194,202	183,513	199,224	187,742	194,761	172,680	(NA)
34815	Appliance wire and cord and flexible cord sets.....	454,071	460,192	454,648	432,876	471,212	404,512	431,553	(NA)
33576	Magnet wire.....	15,362	(NA)	(NA)	(NA)	(NA)	10,177	-	(NA)
36996	Power wire and cable.....	607,028	624,175	531,364	538,396	525,727	399,605	843,090	573,349
33577	Other insulated wire and cable, n.e.c.....	299,769	268,763	252,984	248,297	262,724	222,755		
33578	Nonferrous wire drawing, etc., n.s.k.....	306,484	282,713	244,989	261,758	272,200	233,236		
33610	Aluminum and aluminum-base alloy castings....								
33620	Copper and copper-base alloy castings.....								
33690	Nonferrous castings, n.e.c.....								

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>2</sup>Includes shipments of laminated foil produced in foil mills. In 1958, these shipments were valued at \$36,787 thousand. In 1963, this product is included in product class 34970.

<sup>3</sup>Excludes wire produced in nonferrous wire drawing establishments.

<sup>4</sup>Product class code 33573 includes value for product class code 33575.

**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>			1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
COPPER AND COPPER-BASE ALLOY WIRE, BARE AND TINNED FOR PURPOSES OTHER THAN ELECTRICAL TRANSMISSION (33511)			EXTRUDED ALUMINUM ROD, BAR, AND OTHER EXTRUDED SHAPES EXCLUDING TUBE (33525)			COPPER AND COPPER-BASE ALLOY WIRE (INCLUDING STRAND AND CABLE) BARE AND TINNED FOR ELECTRICAL TRANSMISSION (33572)		
United States, total....	73,150		United States, total....	397,295	272,107	United States, total....	244,979	156,493
New England.....	38,969		New England.....	8,528	2,918	New England.....	24,998	15,542
Connecticut.....	32,263		Massachusetts.....	6,323	( <sup>2</sup> )	Connecticut.....	9,194	( <sup>2</sup> )
Middle Atlantic.....	22,524		Middle Atlantic.....	80,797	51,131	Middle Atlantic.....	112,706	89,175
New York.....	2,134		New York.....	18,159	( <sup>2</sup> )	New Jersey.....	61,188	53,952
New Jersey.....	18,626		New Jersey.....	12,174	( <sup>2</sup> )	North Central.....	88,836	40,908
Pennsylvania.....	1,764		Pennsylvania.....	50,464	38,895	Illinois.....	10,102	( <sup>2</sup> )
North Central, South and West.....	11,657		East North Central.....	138,416	( <sup>2</sup> )	South.....	6,601	10,868
Michigan.....	2,214		Ohio.....	35,889	18,413	West.....	11,838	
			Indiana.....	37,506	( <sup>2</sup> )			
			Illinois.....	27,092	( <sup>2</sup> )			
			Michigan.....	37,929	34,515			
ROLLED, DRAWN AND EXTRUDED COPPER AND COPPER-BASE ALLOY MILL PRODUCTS (33512)	1963 <sup>1</sup>	1958	West North Central.....	3,761	( <sup>2</sup> )	COMMUNICATION WIRE AND CABLE (33574)		
United States, total....	1,471,355	986,551	South Atlantic.....	42,507	40,111	United States, total....	581,781	365,373
New England.....	344,017	273,055	East South Central.....	16,911	6,943	New England.....	77,610	51,972
Connecticut.....	311,680	239,342	West South Central.....	22,113	10,978	Massachusetts.....	29,438	15,161
Middle Atlantic.....	433,937	279,529	West.....	84,262	68,244	Rhode Island.....	13,822	( <sup>2</sup> )
New York.....	171,990	107,048				Connecticut.....	23,142	15,614
New Jersey.....	152,527	97,697	ALUMINUM TUBE AND OTHER ROLLED, DRAWN, OR EXTRUDED MILL PRODUCTS (33526)					
Pennsylvania.....	109,420	74,784	United States, total....	139,172	89,555	Middle Atlantic.....	151,097	124,919
North Central.....	571,100	346,408	New England.....	3,699	30,129	New York.....	77,477	( <sup>2</sup> )
Indiana.....	139,208	( <sup>2</sup> )	Middle Atlantic.....	33,293		New Jersey.....	61,430	71,510
Illinois.....	135,778	87,033	Pennsylvania.....	14,521		Pennsylvania.....	12,190	( <sup>2</sup> )
Michigan.....	146,101	94,711	North Central.....	46,307	22,100	North Central.....	162,416	75,777
South and West.....	122,301	87,559	Illinois.....	5,251	( <sup>2</sup> )	Illinois.....	86,602	( <sup>2</sup> )
California.....	42,015	25,536	Michigan.....	12,616	2,212	South and West.....	190,658	112,705
			South.....	28,313	12,776			
			West.....	27,560	24,550			
ALUMINUM AND ALUMINUM-BASE ALLOY WIRE (INCLUDING ACSR) (33521 AND 33571)			ROLLED, DRAWN, AND EXTRUDED NONFERROUS METAL MILL PRODUCTS (EXCEPT COPPER AND ALUMINUM) (33560)			NONFERROUS WIRE CLOTH AND OTHER WOVEN WIRE PRODUCTS (33575 AND 34815)	1963 <sup>1</sup>	
United States, total....	127,948	100,921	United States, total....	630,536	428,210	United States, total....		70,487
New England.....	3,736	( <sup>2</sup> )				New England.....		7,575
Middle Atlantic.....	38,884	( <sup>2</sup> )				Massachusetts.....		4,572
North Central.....	33,218	35,532				Middle Atlantic.....		25,689
South.....	28,728	( <sup>2</sup> )				New Jersey.....		12,022
West.....	23,382	( <sup>2</sup> )				East North Central.....		13,312
						South Atlantic.....		11,692
						Florida.....		6,504
						East South Central.....		6,917
						Pacific.....		1,604
						All other divisions.....		3,698
ALUMINUM PLATE AND SHEET (INCLUDING FOIL STOCK) (33522)			Middle Atlantic.....	188,283	125,502	APPLIANCE WIRE AND CORD AND FLEXIBLE CORD SETS PRODUCED IN ESTABLISHMENTS WHICH INSULATE WIRE AND CABLE (33576 AND 36996)		
United States, total....	850,459	646,064	New York.....	63,730	43,487		1963 <sup>1</sup>	1958
Northeast.....	52,343	50,974	New Jersey.....	66,921	43,628			
Maine.....	11,015	10,969	Pennsylvania.....	57,632	38,387			
New Hampshire.....	41,328	40,005						
North Central.....	378,458	227,748	North Central.....	185,461	139,619			
Illinois.....	134,924	( <sup>2</sup> )	Ohio.....	71,982	61,936			
			Illinois.....	54,453	43,206			
			South.....	117,051	95,206	United States, total....	167,664	127,069
South and West.....	419,658	367,342	West.....	43,013		New England.....	73,941	56,343

See footnotes at end of table.



TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
APPLIANCE WIRE AND CORD AND FLEXIBLE CORD SETS PRODUCED IN ESTABLISHMENTS WHICH INSULATE WIRE AND CABLE (33576 AND 36996)—Continued			OTHER INSULATED WIRE AND CABLE (33579)—Continued			COPPER AND COPPER-BASE ALLOY CASTINGS (33620)—Continued		
New England—Continued			East North Central.....	103,341	(2)	Middle Atlantic—Continued		
Massachusetts.....	26,255	(2)	Illinois.....	23,187	14,705	New Jersey.....	10,966	
Rhode Island.....	29,082	26,278	Michigan.....	15,703	(2)	Pennsylvania.....	52,205	
Middle Atlantic.....	30,874	22,992	West North Central.....	5,125	(2)	East North Central.....	114,724	
New York.....	20,728	17,117	South.....	42,095	(2)	Ohio.....	36,973	
New Jersey.....	4,797	4,011	Pacific.....	23,156	26,017	Indiana.....	7,535	
Pennsylvania.....	5,349	1,864	ALUMINUM AND ALUMINUM-BASE ALLOY CASTINGS (33610)			Illinois.....	25,830	
East North Central.....	51,419	30,237	United States, total...	607,028	399,605	Michigan.....	24,788	
Indiana.....	17,756	8,804	New England.....	25,034	19,289	Wisconsin.....	19,598	
Illinois.....	12,748	11,627	Massachusetts.....	7,079	6,097	West North Central.....	19,546	
Michigan.....	10,993	(2)	Connecticut.....	15,133	12,120	Minnesota.....	2,093	
West North Central.....	3,651	3,223	Middle Atlantic.....	107,321	70,481	Iowa.....	1,078	
South.....	1,308	(2)	New York.....	57,818	27,638	Missouri.....	7,726	
Pacific.....	6,471	12,716	New Jersey.....	20,800	15,338	Nebraska.....	7,533	
			Pennsylvania.....	28,703	27,505	Kansas.....	1,116	
MAGNET WIRE (33577)			East North Central.....	312,504	201,463	South Atlantic.....	4,613	
United States, total....	258,308	183,382	Ohio.....	134,590	81,569	West Virginia.....	1,455	
New England.....	20,133	15,050	Indiana.....	51,532	17,971	East South Central.....	2,948	
Connecticut.....	9,784	8,222	Illinois.....	49,055	36,188	Alabama.....	2,217	
Middle Atlantic.....	34,128	34,207	Michigan.....	43,254	45,262	West South Central.....	16,408	
North Central and West.....	204,047	(2)	Wisconsin.....	34,073	20,473	Texas.....	5,169	
Indiana.....	112,269	79,785	West North Central.....	33,154	28,894	Mountain.....	1,616	
Illinois.....	36,502	(2)	Minnesota.....	10,492	7,741	Colorado.....	1,224	
POWER WIRE AND CABLE (33578)			Iowa.....	4,997	3,175	Pacific.....	24,286	
United States, total....	218,810	194,761	Missouri.....	14,833	16,915	Oregon.....	1,798	
New England.....	87,743	74,822	South Atlantic.....	7,350	9,947	California.....	21,069	
New Hampshire.....	1,956	(Z)	Maryland.....	1,095	(Z)	NONFERROUS CASTINGS, N.E.C. (33690)		
Massachusetts.....	31,759	32,142	Georgia.....	2,063	1,506	United States, total....	306,484	233,236
Rhode Island.....	28,284	(2)	Florida.....	1,726	(2)	New England.....	12,895	8,676
Connecticut.....	25,744	(2)	East South Central.....	40,148	12,964	Massachusetts.....	4,046	3,142
Middle Atlantic.....	95,107	95,127	Tennessee.....	1,370	(Z)	Connecticut.....	7,115	5,058
New Jersey.....	56,498	57,812	West South Central.....	22,619	12,575	Middle Atlantic.....	60,470	50,964
North Central.....	23,210	(2)	Arkansas.....	14,550	7,135	New York.....	25,741	17,579
South and West.....	12,750	(2)	Oklahoma.....	1,409	(Z)	New Jersey.....	19,264	15,738
OTHER INSULATED WIRE AND CABLE (33579)			Texas.....	6,211	4,670	Pennsylvania.....	15,465	17,647
United States, total....		454,071	Mountain.....	4,259	1,169	East North Central.....	175,271	136,587
New England.....		98,019	Colorado.....	3,470	(Z)	Ohio.....	39,480	31,318
Rhode Island.....		49,233	Pacific.....	54,639	42,823	Indiana.....	12,312	8,137
Connecticut.....		26,280	Washington.....	1,601	1,359	Illinois.....	47,398	36,619
Middle Atlantic.....		182,335	Oregon.....	2,736	1,347	Michigan.....	68,949	55,099
New York.....		96,806	California.....	50,302	40,117	Wisconsin.....	7,132	5,414
New Jersey.....		70,612	COPPER AND COPPER-BASE ALLOY CASTINGS (33620)			West North Central.....	15,319	11,185
Pennsylvania.....		14,917	United States, total....	299,769	222,755	Minnesota.....	5,436	2,261
			New England.....	29,355	16,948	Missouri.....	7,082	7,374
			New Hampshire.....	2,378	2,011	South.....	9,553	4,390
			Massachusetts.....	13,834	8,499	Oklahoma.....	1,282	(Z)
			Rhode Island.....	1,378	(Z)	Texas.....	3,978	3,163
			Connecticut.....	11,360	5,297	West.....	32,976	21,434
			Middle Atlantic.....	86,273	68,135	California.....	30,758	19,528
			New York.....	23,102	25,105			

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million reported. n.e.c. Not elsewhere classified.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed, but the exact figures are withheld to avoid disclosure of individual company figures: 33511, Massachusetts, Rhode Island, Indiana, Illinois, and Wisconsin; 33512, Massachusetts, Rhode Island, Ohio, Wisconsin, Missouri, Maryland, Alabama, and Montana; 33520, New York, Pennsylvania, Ohio, and Michigan; 33521 and 33571, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Ohio, Illinois, Michigan, Iowa, Georgia, Tennessee, Alabama, Montana, Washington, and California; 33522, Connecticut, New Jersey, Pennsylvania, Ohio, Indiana, Michigan, Wisconsin, Iowa, Missouri, Maryland, West Virginia, Kentucky, Tennessee, Alabama, Washington, and California; 33525, Connecticut, Missouri, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Alabama, Mississippi, Arkansas, Texas, Arizona, Washington, and California; 33526, Rhode Island, Connecticut, New York, New Jersey, Ohio, Indiana, Missouri, Maryland, Virginia, Tennessee, Alabama, Texas, Arizona, Washington, and California; 33560, Maine, Vermont, Rhode Island, Indiana, Michigan, West Virginia, North Carolina, Georgia, Alabama, Oklahoma, Texas, Nevada, and California; 33572, Massachusetts, Rhode Island, New York, Ohio, Indiana, Michigan, Missouri, Georgia, and California; 33574, New Hampshire, Vermont, Indiana, Michigan, Nebraska, Maryland, North Carolina, Florida, Texas, and California; 33575 and 34815, Connecticut, New York, Pennsylvania, Ohio, Wisconsin, Missouri, Georgia, Alabama, Mississippi, and California; 33576 and 36996, Connecticut, Ohio, and Missouri; 33577, Vermont, Massachusetts, Rhode Island, New York, Ohio, Michigan, Missouri, and California; 33578, New York, Pennsylvania, Ohio, Indiana, Illinois, Missouri, Maryland, Alabama, and California; 33579, Massachusetts, Ohio, Indiana, Missouri, Maryland, West Virginia, North Carolina, Georgia, Tennessee, Texas, Washington, and California; 33610, New Hampshire, Nebraska, Kansas, South Carolina, Kentucky, Alabama, and Mississippi; 33620, Arkansas, Oklahoma, and Washington; 33690, Rhode Island, Iowa, and Oregon.

<sup>2</sup>Shipments of \$1 million or more were reported, but exact figures are withheld to avoid disclosure of individual company figures.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	1963						1958		
		Total		Establishments with casting department <sup>2</sup>		Establishments without casting department <sup>2</sup>		Quantity	Delivered cost	
		Quantity (short tons)	Delivered cost (\$1,000)	Quantity (short tons)	Delivered cost (\$1,000)	Quantity (short tons)	Delivered cost (\$1,000)			
INDUSTRY 3351.—COPPER ROLLING AND DRAWING <sup>1</sup>										
	Materials, containers, and supplies, total.....	(X)	1,120,641	(X)	652,927	(X)	467,714	(X)	700,162	
	Nonferrous metals and alloys (ingot, pig, shot, etc.):									
333404	Aluminum, unalloyed.....	31,496	13,392	17,380	7,942	32,654	14,016	{	52,156	
333405	Aluminum-base alloys.....	18,538	8,566							
333121	Copper, unalloyed (cathodes, ingot, cakes, slabs, etc.)..	839,014	527,640	512,614	323,027	326,400	204,613		5,338	
334123	Copper-base alloy raw materials (ingot billets, shot, waffle, hardeners, etc.).....	223,974	132,701	86,856	48,582	137,118	84,119		687,096	
333232	Lead and lead-base alloys.....	3,283	755	2,161	498	1,122	257		144,726	
333973	Magnesium and magnesium-base alloys.....	(D)	(D)	(D)	(D)	(D)	(D)		2,916	
333971	Nickel and nickel-base alloys.....	7,035	11,513	5,274	7,014	1,761	4,499		-	
333348	Zinc and zinc-base alloys.....	100,885	24,894	78,430	19,449	22,455	5,445		2,588	
333909	Other nonferrous metals and alloys.....	(NA)	11,930	(NA)	4,303	(NA)	7,627		3,802	
	Nonferrous metal scrap (excluding home scrap):									
999809	Aluminum and aluminum-base alloy:									
999810	From other establishments of the same company.....	6,270	2,794	(D)	(D)	(D)	(D)	{	2,399	
999812	From other sources.....									
999812	Copper and copper-base alloy.....	380,170	189,328	290,025	145,893	90,145	43,435		257,846	102,317
999814	Zinc and zinc-base alloy, including drosses and skimming.....	(D)	(D)	(D)	(D)	(D)	(D)			
335200	Aluminum and aluminum-base alloy mill shapes (rod, bar, sheet, etc.).....	23,704	13,883	(D)	(D)	(D)	(D)	{	(X)	
335128	Brass mill shapes (rod, bar, sheet, etc.).....	79,361	55,621	48,949	31,956	30,412	23,665			
970099	All other materials and components, parts, containers, and supplies consumed.....	(X)	83,005	(X)	52,554	(X)	47,128	{	(X)	
976000	Materials, parts, containers, and supplies, n.s.k. <sup>3</sup> .....	(X)	44,619	(X)	11,709	(X)	32,910			
Material				1963			1958			
				Quantity (short tons)	Delivered cost (\$1,000)	Quantity (short tons)	Delivered cost (\$1,000)			
INDUSTRY 3352.—ALUMINUM ROLLING AND DRAWING <sup>1</sup>										
	Materials, containers, and supplies, total.....	(X)	1,414,580	(X)				(X)	995,669	
	Nonferrous metals and alloys:									
333404	Aluminum, unalloyed.....			1,032,740	466,176		826,057		393,016	
333405	Aluminum-base alloys.....			1,029,105	518,862		464,488		250,326	
333121	Copper and copper-base alloys.....			22,389	13,202		1,493		765	
334123										
333232	Lead and lead-base alloys.....			2,512	956		-		-	
333348	Zinc and zinc-base alloys.....			3,502	1,292		-		-	
333973	Magnesium and magnesium-base alloys.....			15,314	10,763		9,014		6,654	
333909	Other nonferrous metals and alloys.....			(X)	4,271		(NA)		(NA)	
	Nonferrous mill shapes:									
335200	Aluminum and aluminum-base alloy mill shapes.....			143,431	90,214		(NA)		(NA)	
335128	Brass mill shapes (rod, bar, sheet, etc.).....			6,760	6,845		(NA)		(NA)	
	Nonferrous metal scrap (except home scrap):									
999809	Aluminum and aluminum-base alloy:									
999810	From other establishments of the same company.....			101,990	25,575	{	165,138	{	73,427	
999812	From other sources.....			104,019	39,910					
999812	Copper and copper-base alloy.....			11,555	5,800		840		420	
999814	Zinc and zinc-base alloy.....			(D)	(D)		2,848		695	
970099	All other materials and components, parts, containers, and supplies consumed.....			(X)	167,616		(X)		242,049	
976000	Materials, containers, parts and supplies, n.s.k. <sup>3</sup> .....			(X)	63,098		(X)		28,317	
INDUSTRY 3356.—ROLLING AND DRAWING, N.E.C. <sup>1</sup>										
	Materials, containers, and supplies, total.....	(X)	368,372	(X)				(X)	270,272	
	Nonferrous metals and alloys (ingot, pig, shot, etc.):									
333404	Aluminum, unalloyed.....			2,369	1,010		703		373	
333405	Aluminum-base alloys.....			(D)	(D)		1,936		961	
333121	Copper, unalloyed (cathodes, ingot, cakes, slabs, etc.).....			5,937	3,652	{	4,249	{	2,472	
334123	Copper-base alloy raw materials (ingot, billets, shot, waffle, hardeners, etc.)..									
333232	Lead and lead-base alloys.....			44,428	14,354		109,336		30,156	
333973	Magnesium and magnesium-base alloys.....			15,055	7,900		10,418		7,697	
333971	Nickel and nickel-base alloys.....			(D)	(D)		28,646		36,325	
333348	Zinc and zinc-base alloys.....			51,059	11,643		39,478		8,682	
333909	Other nonferrous metals and alloys.....			(NA)	96,635		(NA)		(NA)	

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	1963		1958										
		Quantity	Delivered cost	Quantity	Delivered cost									
		(short tons)	(\$1,000)	(short tons)	(\$1,000)									
		INDUSTRY 3356.--ROLLING AND DRAWING, N.E.C. <sup>1</sup> —Continued												
999809	Nonferrous metal scrap (purchased scrap only):	}	(D)	(D)	208	77								
999810	Aluminum and aluminum-base alloy:													
	From other establishments of the same company.....													
999812	From all other sources.....													
999812	Copper and copper-base alloy.....	(D)	(D)	}	(X)	161,878								
999814	Zinc and zinc-base alloy, including drosses and skimming.....	(D)	(D)											
335128	Brass mill shapes (rod, bar, sheet, etc.).....	223	307	}	(X)	21,651								
970099	All other materials and components, parts, containers, and supplies consumed.....	(X)	200,443											
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....	(X)	32,428											
Material	Unit of measure	1963								1958				
		Total		Establishments with wire drawing departments				Establishments without wire drawing departments		Quantity	Delivered cost			
		Quantity	Delivered cost	With rod mill (335711)		Without rod mill								
				Quantity	Delivered cost	Quantity	Delivered cost	Quantity	Delivered cost			Quantity	Delivered cost	
			(\$1,000)		(\$1,000)		(\$1,000)		(\$1,000)		(\$1,000)			
		INDUSTRY 3357.—NONFERROUS WIRE DRAWING, ETC.												
	Materials, containers, and supplies, total.....	(X)	1,405,424	(X)	362,207	(X)	94,234	(X)	706,321	(X)	242,662	(X)	927,284	
	Nonferrous metal mill shapes and forms (except castings):													
	Rods:													
335251	Aluminum and aluminum-base alloy.....	1,000 lbs.	222,358	59,971	(D)	(D)	79,134	18,134	137,150	36,156	(D)	(D)	123,869	37,445
335124	Copper, unalloyed....	...do.....	920,054	301,443	(D)	(D)	133,879	44,110	692,117	226,661	(D)	(D)	792,231	225,432
335125	Copper-base alloy.....	...do.....	185,478	61,997	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	54,012	15,028
	Wire for re-drawing:													
335716	Aluminum and aluminum-base alloy.....	...do.....	3,313	1,137	(D)	(D)	(D)	(D)	(D)	(D)	-	-	582	254
335112	Copper and copper-base alloy.....	...do.....	60,355	22,322	(D)	(D)	(D)	(D)	18,194	6,461	-	-	46,559	15,197
335608	Other nonferrous metals..	...do.....	10,347	7,831	(D)	(D)	(D)	(D)	(D)	(D)	-	-	(NA)	1,704
	Bare wire (except wire for redrawing):													
335725	Copper and copper-base alloy (electrical).....	...do.....	331,129	130,108	(D)	(D)	(D)	(D)	56,506	22,004	264,082	103,243	279,520	105,578
335718	Aluminum and aluminum-base alloy.....	...do.....	13,492	4,798	(D)	(D)	(D)	(D)	7,302	2,459	(D)	(D)	7,851	2,722
	All other mill shapes and forms:													
335109	Copper and copper-base alloy, including mechanical wire	...do.....	40,930	22,615	(D)	(D)	(D)	(D)	24,662	13,973	14,002	7,194	10,928	5,654
335207	Aluminum and aluminum-base alloy.....	...do.....	13,789	4,581	(D)	(D)	-	-	(D)	(D)	(D)	(D)	10,548	5,370
335609	All other nonferrous metal mill shapes.....	...do.....	(NA)	6,803	(NA)	3,125	(NA)	786	(NA)	2,461	(NA)	431	15,675	5,147

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963										1958	
			Total		Establishments with wire drawing department						Establishments without wire drawing departments		Quantity	Delivered cost
			Quantity	Delivered cost	With rod mill (335711)		Without rod mill							
							Without insulating department		With insulating department					
					Quantity	Delivered cost	Quantity	Delivered cost	Quantity	Delivered cost	Quantity	Delivered cost		
					</									

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	1963		1958	
		Quantity	Delivered cost	Quantity	Delivered cost
		(short tons)	(\$1,000)	(short tons)	(\$1,000)
		INDUSTRY 3362.—BRASS, BRONZE, COPPER CASTINGS			
	Materials, parts, containers, and supplies, total.....	(X)	132,061	(X)	101,504
331051	Pig iron (excluding silvery iron).....	3,878	274	1,466	100
	Nonferrous metal alloys and ferroalloys (ingot, pig, shot, etc.):				
333404	Aluminum, unalloyed.....	1,582	739	854	401
333405	Aluminum-base alloys.....	8,107	3,933	7,342	3,432
333121	Copper, unalloyed (cathodes, ingot, cakes, slabs).....	13,180	8,082	9,387	5,029
334123	Copper-base alloy raw materials (ingot, billets, shot, waffle, hardeners, etc.).	73,411	43,530	60,706	31,956
333348	Zinc and zinc-base alloys.....	1,308	321	826	203
333973	Magnesium and magnesium-base alloys.....	47	31	-	-
331312	Ferromanganese.....	3,280	1,921	(NA)	391
331309	Other ferroalloys, including silvery iron.....				
	Scrap (purchased scrap only):				
999811	Iron and steel.....	6,400	324	2,350	100
999808	Aluminum and aluminum-base alloy.....	197	69	131	43
999812	Copper and copper-base alloy.....	52,297	26,050	55,590	25,111
970099	All other materials and components, parts, containers, and supplies consumed.....	(X)	25,914	(X)	17,937
976000	Materials, parts, components, and supplies, n.s.k. <sup>3</sup> .....	(X)	20,873	(X)	16,801
		INDUSTRY 3369.—NONFERROUS CASTINGS, N.E.C.			
	Materials, parts, containers, and supplies, total.....	(X)	104,619	(X)	80,438
331051	Pig iron (excluding silvery iron).....	(D)	(D)	-	-
	Nonferrous metal alloys and ferroalloys (ingot, pig, shot, etc.):				
333404	Aluminum, unalloyed.....	24,451	11,563	4,321	1,888
333405	Aluminum-base alloy.....			15,637	6,465
333121	Copper, unalloyed (cathodes, ingot, cakes, slabs, etc.).....	1,724	1,272	188	112
334123	Copper-base alloy raw materials (ingot, billets, shot, waffle, hardeners, etc.).			455	223
333348	Zinc and zinc-base alloys.....	132,087	35,003	91,418	22,953
333973	Magnesium and magnesium-base alloys.....	5,187	3,379	8,968	5,754
331312	Ferromanganese.....	3,558	1,015	-	-
331309	Other ferroalloys, including silvery iron.....				
	Scrap (purchased scrap only):				
999811	Iron and steel.....	(D)	(D)	-	-
999808	Aluminum and aluminum-base alloy.....	63	21	-	-
999812	Copper and copper-base alloy.....	(D)	(D)	-	-
970099	All other materials and components, parts, containers, and supplies consumed.....	(X)	36,559	(X)	31,209
976000	Materials, parts, containers, and supplies, n.s.k. <sup>3</sup> .....	(X)	15,807	(X)	11,834

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Data exclude tonnages of nonferrous materials processed on a toll basis by establishments classified in industries 3351, 3352, and 3356. Most of the material involved in toll processing is owned by establishments classified in other industries, principally industry 3357, Nonferrous Wire Drawing etc. As table 6A shows, unalloyed copper rod and bar (product code 3351211) is by far the most important mill product produced on a toll basis. Relatively small quantities of aluminum and other nonferrous metals are produced on toll.

<sup>2</sup>See footnote 4, table 1 for subindustry definitions.

<sup>3</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report cost of individual materials on "standard forms."

**TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962**

Item	Copper rolling and drawing (SIC 3351)	Aluminum rolling and drawing (SIC 3352)	Rolling and drawing, n.e.c. (SIC 3356)	Nonferrous wire drawing, etc. (SIC 3357)	Aluminum castings (SIC 3361)	Brass, bronze, copper castings (SIC 3362)	Nonferrous casting, n.e.c. (SIC 3369)
Total cost of purchased fuels and electric energy.....\$1,000..	25,536	38,791	10,363	21,730	15,327	6,558	6,408
Total cost of purchased fuels.....do....	11,301	19,047	4,656	6,581	8,706	3,589	3,115
Bituminous coal, lignite, and anthracite:							
Quantity.....1,000 short tons..	260	245	38	122	32	(S)	19
Cost.....\$1,000..	1,674	1,601	233	1,005	173	(S)	91
Coke and breeze:							
Quantity.....1,000 short tons..	(S)	(S)	3	-	(S)	(S)	(S)
Cost.....\$1,000..	(S)	(S)	121	-	(S)	(S)	(S)
Fuel oil (distillate and residual):							
Quantity.....1,000 barrels of 42 gallons..	1,156	601	117	964	231	204	116
Cost.....\$1,000..	3,355	2,211	436	2,734	1,083	931	457
Gas (natural, manufactured, still, blast furnace, and coke oven):							
Quantity.....million cu.ft..	8,887	28,903	6,380	3,640	10,935	3,319	3,435
Cost.....\$1,000..	5,861	13,599	3,528	2,310	6,564	2,258	2,203
Other fuels.....do....	(S)	(S)	338	532	(S)	239	268
Electric energy:							
Purchased:							
Quantity.....million kw.-hrs..	1,277	2,496	593	1,221	538	172	208
Cost.....\$1,000..	14,235	19,744	5,707	15,149	6,621	2,969	3,293
Generated less sold.....million kw.-hrs..	220	7	(S)	(S)	-	-	-
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	992	2,007	315	629	211	119	97
Prime movers, total.....do....	141	209	19	49	17	15	5
Driving generators.....do....	106	12	7	25	1	2	3
Not driving generators.....do....	35	197	12	24	16	13	2
Electric motors, total.....do....	948	1,802	298	580	194	105	92
Driven by purchased energy.....do....	851	1,797	296	580	194	105	92
Driven by energy generated at establishment.....do....	96	5	2	-	-	-	-
Aggregate horsepower per 100 production workers.....	3,061	4,690	2,438	1,346	645	813	734

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3351-	COPPER ROLLING AND DRAWING										
	Entire industry.....	112	38,949	260,320	31,481	65,746	200,171	478,393	1,188,548	1,657,526	43,462
	Establishments with—										
	90% or more specialization..	77	23,095	156,233	18,900	39,021	121,933	299,665	749,042	1,044,987	15,275
	75-89% specialization.....	16	9,898	67,063	7,943	16,896	51,697	115,445	326,219	438,550	17,855
33511	Copper and copper-base alloy wire, bare and tinned for purposes other than electrical transmission (primary product class of estab.).....	12	1,346	8,747	1,055	2,194	6,706	15,407	33,244	49,354	630
	Establishments with—										
	75% or more specialization....	7	115	892	91	205	534	1,744	3,942	5,657	78
33512	Rolled, drawn and extruded copper and copper-base alloy mill products (primary product class of estab.).....	93	37,603	251,573	30,426	63,552	193,465	482,986	1,155,304	1,608,172	42,832
	Establishments with—										
	90% or more specialization....	65	20,331	137,830	16,677	34,621	107,636	270,746	684,367	950,879	13,584
	75-89% specialization.....	13	8,624	58,283	6,996	14,759	45,062	95,197	279,271	371,065	17,805
3351-21	ESTABLISHMENTS WITH CASTING DEPARTMENT <sup>1</sup>										
	Entire subindustry.....	36	25,752	174,972	20,774	43,765	135,769	305,113	687,401	985,609	26,965
	Establishments with—										
	90% or more specialization..	23	14,859	101,454	12,342	25,584	81,621	187,245	404,604	589,657	8,734
	75-89% specialization.....	8	7,113	49,157	5,647	12,193	37,541	79,684	212,513	289,247	16,209
3351-22	ESTABLISHMENTS WITHOUT CASTING DEPARTMENT <sup>1</sup>										
	Entire subindustry.....	76	13,197	85,348	10,707	21,981	64,402	173,280	501,147	671,917	16,497
	Establishments with—										
	90% or more specialization..	54	8,236	54,779	6,558	13,437	40,312	112,420	344,438	455,330	6,541
	75-89% specialization.....	8	2,785	17,906	2,296	4,703	14,156	35,761	113,706	149,303	1,646
3352-	ALUMINUM ROLLING AND DRAWING										
	Entire industry.....	212	54,263	376,647	42,750	89,868	278,469	721,171	1,524,841	2,196,439	81,282
	Establishments with—										
	90% or more specialization..	172	33,895	236,582	26,247	54,844	170,078	435,582	1,009,245	1,417,674	45,506
	75-89% specialization.....	10	11,202	81,584	9,183	19,224	64,011	152,371	287,176	420,867	28,578
33522	Aluminum plate and sheet (including foil stock) (primary product class of estab.).....	25	23,711	175,847	19,218	40,596	136,112	342,242	781,305	1,083,806	54,867
	Establishments with—										
	90% or more specialization....	13	9,795	75,780	7,743	16,728	57,220	160,115	373,390	516,333	21,559
	75-89% specialization.....	5	5,004	36,612	4,480	9,660	31,533	80,210	160,540	225,755	16,907
33523	Plain aluminum foil (primary product class of estab.).....	13	5,161	36,478	3,817	7,919	23,990	89,620	141,856	229,263	3,555
33524	Rolled aluminum rod, bar (including continuous cast) and structural shapes (primary product class of estab.).....	6	4,246	29,974	3,229	6,540	21,389	54,511	179,020	231,902	4,672
33525	Extruded aluminum rod, bar, and other extruded shapes, except tube (primary product class of estab.).....	96	18,383	117,437	14,365	30,387	84,440	202,053	296,113	493,390	14,798
	Establishments with—										
	90% or more specialization....	68	6,444	36,203	5,089	10,768	24,855	72,680	120,322	186,815	5,117
	75-89% specialization.....	11	2,894	19,106	2,188	4,587	13,412	29,612	54,428	85,792	3,322
33526	Aluminum tube and other rolled, drawn or extruded mill products (primary product class of estab.).....	18	983	6,067	781	1,682	4,262	12,787	33,807	46,404	919
33528	Aluminum extrusion billet (primary product class of estab.)....	5	226	1,215	184	362	887	3,069	13,963	16,813	186

<sup>1</sup> See footnotes at end of table.

**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued**

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3356-	ROLLING AND DRAWING, N.E.C.										
	Entire industry.....	125	17,375	117,454	12,275	25,367	74,052	250,589	405,011	640,962	22,154
	Establishments with—										
	90% or more specialization..	96	8,782	60,179	6,269	12,776	38,402	146,455	297,955	430,715	16,456
	75-89% specialization.....	7	875	5,362	593	977	3,262	7,763	8,166	15,824	380
3357-	NONFERROUS WIRE DRAWING, ETC.										
	Entire industry.....	299	56,418	339,935	43,905	90,368	240,904	677,535	1,452,095	2,117,943	44,478
	Establishments with—										
	90% or more specialization..	254	45,395	268,942	35,442	72,872	191,550	534,956	1,110,200	1,636,602	34,080
	75-89% specialization.....	16	2,735	17,343	2,098	4,323	12,053	31,855	87,365	117,618	2,833
33571	Aluminum and aluminum-base alloy wire and cable (including ACSR) (primary product class of estab.).....	8	1,115	7,946	846	1,701	5,418	9,893	59,502	67,507	1,999
33572	Copper and copper-base alloy wire (including strand and cable), bare and tinned, for electrical transmission (primary product class of estab.)..	27	3,461	21,438	2,853	6,071	16,366	46,915	216,687	262,931	2,050
33573	Other bare nonferrous metal wire (primary product class of estab.).....	11	1,497	9,966	1,102	2,151	6,464	17,270	19,243	36,903	3,313
	Establishments with—										
	90% or more specialization..	7	416	2,190	361	703	1,788	4,368	8,839	13,131	275
33574	Communication wire and cable (primary product class of estab.).....	70	20,821	126,833	16,286	33,689	90,865	283,195	466,274	753,617	18,243
	Establishments with—										
	90% or more specialization..	36	7,587	50,395	5,683	11,963	34,518	121,617	217,143	342,387	8,476
	75-89% specialization.....	5	1,061	6,469	696	1,483	3,730	9,791	15,516	25,340	454
33575	Nonferrous wire cloth and other woven wire products (primary product class of estab.).....	8	1,493	9,306	1,308	2,790	7,177	16,014	9,977	26,091	1,576
	Establishments with—										
	90% or more specialization..	4	623	4,734	540	1,099	3,494	8,219	3,903	12,361	1,030
33576	Appliance wire and cord, and flexible cord sets (primary product class of estab.).....	23	3,245	15,245	2,734	5,320	11,586	28,172	46,083	72,753	2,064
	Establishments with—										
	90% or more specialization..	15	1,543	7,104	1,309	2,660	5,334	12,558	21,568	33,248	641
33577	Magnet wire (primary product class of estab.).....	26	4,660	31,630	3,593	7,712	23,768	61,658	144,897	205,477	3,025
	Establishments with—										
	90% or more specialization..	20	3,775	25,573	2,872	6,113	19,079	52,066	122,771	173,902	2,541
33578	Power wire and cable (primary product class of estab.).....	16	6,084	38,065	4,326	8,692	24,806	67,301	109,055	173,846	4,357
	Establishments with—										
	75% or more specialization..	5	1,159	8,404	869	1,863	6,097	15,525	25,971	41,798	1,338
33579	Other insulated wire and cable, n.e.c. (primary product class of estab.).....	63	12,921	73,172	10,041	20,551	50,570	137,110	362,341	492,931	7,096
	Establishments with—										
	90% or more specialization..	31	3,061	15,863	2,544	5,076	11,505	38,228	95,849	131,392	1,435
	75-89% specialization.....	9	1,640	9,356	1,245	2,553	6,011	13,280	49,390	66,077	513
3357-11	WIRE DRAWING ESTABLISHMENTS WITH ROD MILL										
	Entire subindustry.....	32	9,258	57,042	7,537	15,672	43,801	133,749	368,424	498,611	7,643
	Establishments with—										
	90% or more specialization	21	5,062	29,041	4,234	8,838	22,777	68,025	128,847	195,264	4,382
	75-89% specialization.....	4	1,220	7,365	1,014	2,060	5,945	18,368	55,170	72,504	1,800
33574-11	Communication wire and cable (primary product class of estab.).....	5	3,016	17,788	2,495	5,368	13,816	40,063	81,542	121,682	2,162

See footnotes at end of table.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued**

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
	WIRE DRAWING ESTABLISHMENTS WITH NEITHER ROD MILL NOR INSULATING DEPARTMENT										
3357-12	Entire subindustry.....	41	4,359	27,807	3,524	7,382	19,624	50,923	98,082	147,864	6,312
	Establishments with—										
	90% or more specialization	31	2,545	16,402	2,143	4,465	12,101	30,787	81,349	111,341	2,855
33571-12	Aluminum and aluminum-base alloy wire and cable (including ACSR) (primary product class of estab.).....	5	450	3,257	337	707	2,092	6,508	26,883	32,277	1,174
33572-12	Copper and copper-base alloy wire (including strand and cable) bare and tinned, for electrical transmission (primary product class of estab.).....	17	1,397	8,190	1,160	2,453	6,009	14,786	51,706	66,643	584
33573-12	Other bare nonferrous metal wire (primary product class of estab.).....	7	863	6,345	582	1,135	3,834	11,357	6,538	17,813	3,076
33575-12	Nonferrous wire cloth and other woven wire products (primary product class of estab.).....	8	1,493	9,306	1,308	2,790	7,177	16,014	9,987	26,091	1,441
	Establishments with—										
	90% or more specialization...	4	623	4,734	540	1,099	3,494	8,219	3,903	12,361	895
3357-13	WIRE DRAWING ESTABLISHMENTS WITHOUT ROD MILL BUT WITH INSULATING DEPARTMENT										
	Entire subindustry.....	72	30,347	187,718	23,241	47,731	132,664	350,789	735,320	1,083,475	24,064
	Establishments with—										
	90% or more specialization.	66	26,656	164,878	20,317	41,813	115,977	312,768	670,347	981,380	21,346
33574-13	Communication wire and cable (primary product class of estab.).....	19	11,713	77,566	9,114	18,920	56,690	174,147	284,583	462,648	12,668
33577-13	Magnet wire (primary product class of estab.).....	11	1,831	12,030	1,445	3,122	9,171	17,603	50,243	67,840	1,035
	Establishments with—										
	90% or more specialization...	7	1,020	6,575	787	1,673	4,873	9,242	29,639	38,974	693
33578-13	Power wire and cable (primary product class of estab.).....	11	5,582	34,836	3,907	7,833	22,393	59,354	102,155	159,320	4,217
33579-13	Other insulated wire and cable, n.e.c. (primary product class of estab.).....	21	7,956	45,225	6,156	12,848	31,151	75,456	224,459	298,836	4,169
	Establishments with—										
	90% or more specialization...	7	1,277	6,224	1,129	2,369	5,029	18,176	56,127	71,610	746
	75-89% specialization.....	4	1,330	7,413	983	2,041	4,819	9,791	45,264	58,447	437
3357-14	ESTABLISHMENTS WITHOUT WIRE DRAWING DEPARTMENT										
	Entire subindustry.....	154	12,454	67,368	9,603	19,583	44,815	142,074	250,269	387,993	6,330
	Establishments with—										
	90% or more specialization.	136	11,132	58,621	8,748	17,756	40,695	123,376	229,657	348,617	5,362
	75-89% specialization.....	7	470	3,535	293	588	1,592	7,858	7,107	14,607	444
33574-14	Communication wire and cable (primary product class of estab.).....	46	6,092	31,479	4,677	9,175	20,310	68,985	100,149	169,287	3,419
	Establishments with—										
	90% or more specialization...	27	2,756	14,303	2,113	4,349	9,386	35,596	54,993	89,529	1,604
33576-14	Appliance wire and cord and flexible cord sets (primary product class of estab.).....	17	1,129	5,020	965	1,967	3,715	9,016	17,562	26,158	519
	Establishments with—										
	90% or more specialization...	13	970	4,281	821	1,613	3,105	7,566	14,867	21,922	417
33578-14	Power wire and cable (primary product class of estab.).....	5	502	3,229	419	859	2,413	7,947	6,900	14,526	140

See footnotes at end of table.

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3361	ALUMINUM CASTINGS										
	Entire industry.....	954	36,216	222,771	30,746	63,432	174,155	343,863	299,398	640,193	18,374
	Establishments with—										
	90% or more specialization.	643	16,125	96,130	13,722	28,440	75,600	150,848	156,079	305,691	8,815
	75-89% specialization.....	93	6,657	46,547	5,597	11,737	36,822	61,678	56,111	117,533	5,363
3362	BRASS, BRONZE, COPPER CASTINGS										
	Entire industry.....	549	15,341	86,350	12,835	26,052	65,095	144,092	144,433	287,534	5,394
	Establishments with—										
	90% or more specialization.	306	7,655	41,445	6,408	12,880	31,822	74,207	82,449	156,081	2,870
	75-89% specialization.....	81	1,954	10,759	1,622	3,228	8,018	16,251	17,143	33,358	623
3369	NONFERROUS CASTINGS, N.E.C.										
	Entire industry.....	391	17,686	102,929	14,845	30,320	78,447	168,530	134,318	302,731	6,803
	Establishments with—										
	90% or more specialization.	236	6,568	36,553	5,536	11,171	27,582	60,567	50,016	110,447	2,691
	75-89% specialization.....	47	4,448	26,582	3,766	7,840	20,946	42,793	31,666	74,701	1,677

n.e.c. Not elsewhere classified.

<sup>1</sup>See footnote 4; table 1 for subindustry definition.



TABLE 9A. Departmental Operations, by Subindustry: 1963

Item	Copper rolling and drawing industry (SIC 3351)									
	Man-hours of production workers (1,000)			Production worker wages (\$1,000)						
	Total	Establishments with casting department <sup>1</sup>	Establishments without casting department <sup>1</sup>	Total	Establishments with casting department <sup>1</sup>	Establishments without casting department <sup>1</sup>				
Total, all departments.....	65,746	43,765	21,981	200,171	135,769	64,402				
Casting (except foundry).....	3,907	3,907	-	12,896	12,896	-				
Rod mill.....	5,397	3,377	2,020	15,446	9,456	5,990				
Wire mill (including stranding mill).....	2,124	1,530	594	6,494	4,448	2,046				
Tube mill.....	14,905	9,117	5,788	44,232	27,450	16,782				
Flat products mill.....	11,452	7,520	3,932	34,546	22,999	11,547				
Foundry (nonferrous).....	1,073	473	600	3,708	1,838	1,870				
Machine shop and tool and die shop.....	3,927	3,017	910	12,769	9,930	2,839				
Heat treating and annealing.....	890	603	287	2,728	1,929	799				
Other manufacturing or fabricating departments.....	4,449	2,858	1,591	12,117	7,968	4,149				
All other, including service or auxiliary operations	11,888	9,559	2,329	37,515	29,897	7,618				
Not specified.....	5,734	1,804	3,930	17,720	6,958	10,762				
Aluminum rolling and drawing industry (SIC 3352)										
	Man-hours of production workers (1,000)			Production worker wages (\$1,000)						
	Total	Establishments operated by primary (integrated) producers	Establishments operated by nonintegrated producers	Total	Establishments operated by primary (integrated) producers	Establishments operated by nonintegrated producers				
Total, all departments.....	89,868	66,472	23,396	278,469	221,720	56,749				
Melting (except foundry).....	4,925	4,377	548	17,287	16,061	1,226				
Sheet and plate mill.....	17,470	15,870	1,600	56,945	52,323	4,622				
Foil rolling mill (excluding conversion or subsequent operations).....	3,534	3,147	387	10,198	9,055	1,143				
Extrusion department (rod, bar, tube, pipe, etc.)...	14,410	8,072	6,338	43,593	28,650	14,943				
Tube mill (drawn and welded).....	2,662	1,866	796	7,617	5,864	1,753				
Wire, rod and bar mill (excluding extruded).....	2,784	} 3,649	2,059	} 7,880	} 11,812	4,666				
Electrical conductor department(ACSR, insulated, etc.).....										
Forging and import extrusions.....	2,924									
Foundry (nonferrous).....										
Machine shop and tool and die shop.....	3,953	3,786	167	13,821	13,362	459				
Other manufacturing or fabricating departments.....	6,307	4,978	1,329	20,511	17,022	3,489				
All other, including service or auxiliary operations	16,065	14,627	1,438	51,854	48,272	3,582				
Not specified.....	14,834	6,100	8,734	40,165	19,299	20,866				
Wire drawing, etc., industry (SIC 3357)										
	Man-hours of production workers (1,000)				Production worker wages (\$1,000)					
	Total	Establishments with wire drawing department		Establishments without wire drawing department	Total	Establishments with wire drawing department		Establishments without wire drawing department		
		With rod mill	Without rod mill			With rod mill	Without rod mill			
			Without insulating department				With insulating department		Without insulating department	With insulating department
Total, all departments.....	90,368	15,672	7,382	47,731	19,583	240,904	43,801	19,624	132,664	44,815
Rod mill.....	716	716	-	-	-	2,027	2,027	-	-	-
Wire drawing and stranding mill.....	10,072	2,043	2,934	5,095	-	27,744	5,646	7,829	14,269	-
Insulating and cabling of wire and cable, including sheathing.....	34,824	4,128	-	19,036	11,660	94,929	12,048	-	56,401	26,480
Electroplating, galvanizing, heat treating and annealing.....	767	256	99	412	-	2,061	613	239	1,209	-
Machine shop and tool and die shop.....	4,688	994	183	3,101	410	13,523	2,773	511	9,145	1,094
Other manufacturing or fabricating departments, including annealing.....	14,613	1,686	1,448	8,793	2,686	33,099	3,440	4,074	20,844	4,741
All other, including service or auxiliary operations	16,782	3,768	443	10,694	1,877	45,519	10,774	997	29,375	4,373
Not specified.....	7,906	2,081	2,275	600	2,950	22,002	6,480	5,974	1,421	8,127

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>See footnote 4, table 1 in subindustry definitions.

<sup>2</sup>See footnote 5, table 1 in subindustry definitions.

TABLE 9B. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
Machine shop..... Foundry pattern shop.....  Machine shop..... Foundry pattern shop.....  Machine shop..... Foundry pattern shop.....	INDUSTRY 3361.—ALUMINUM CASTINGS							
	124	41	60	23	2,207	68	597	1,542
	97	66	24	7	679	126	190	363
	INDUSTRY 3362.—BRASS, BRONZE, COPPER CASTINGS							
	93	34	44	15	1,447	79	395	973
	64	52	12	-	184	88	96	-
	INDUSTRY 3369.—NONFERROUS CASTINGS, N.E.C.							
	66	35	20	11	690	68	189	433
	18	10	7	1	108	23	(D)	(D)

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

Item	Industry		
	3361	3362	3369
Total number of establishments in the industry.....	954	549	391
Number of establishments which reported one or more of the specified operations.....	238	171	93
Percent of industry production workers in these establishments.....	55-60	60-65	45-50
Number of establishments which reported "none" of the operations apply.....	229	160	98
Percent of industry production workers in these establishments.....	20-25	20-25	25-30
Percent of industry production workers in establishments which completed the metalworking operations inquiry.....	80-85	80-85	75-80

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.





## FORGINGS AND MISCELLANEOUS PRIMARY METAL INDUSTRIES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

3391—Iron and Steel Forgings

3392—Nonferrous Forgings

3399—Primary Metal Industries, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3391—IRON AND STEEL FORGINGS

This industry comprises establishments primarily engaged in manufacturing iron and steel forgings with or without the use of dies. These establishments generally operate on a job or order basis, manufacturing forgings for sale to others or for interplant transfer. Establishments which produce iron and steel forgings and which are also engaged in fabricating operations such as machining, assembling, etc., in manufacturing a specified product are classified in the industry of the specified product. Iron and steel forgings are made to a considerable extent by establishments classified in other industries that produce forgings for incorporation, in the same establishment, into such products as machinery, motor vehicles, etc. Steel rolling mills producing iron and steel forgings are classified in industry 3312, Blast Furnaces and Steel Mills. For a detailed list of products of industry 3391, refer to table 6A, product codes 3391111 to 3391943.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Iron and Steel Forgings Industry totaled \$869 million. This amount included shipments of iron and steel forgings (primary products) valued at \$745 million, shipments of other products (secondary products) valued at \$88 million, and miscellaneous receipts (mainly resales) at \$36 million.

This industry's shipments of iron and steel forgings represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was 86 percent. Secondary products shipped by this industry in 1963 consisted mainly of nonferrous forgings (\$30 million), and metal fittings and unions for piping systems (\$23 million).



While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent to this specialization is indicated in table 8. Approximately 74 percent of the total industry shipments are represented by plants specializing in product class 33911, Drop, upset, and press steel forgings (closed die).

Shipments of iron and steel forgings by this industry represented 69 percent of all shipments of these products (\$1,076 million) by all industries. In 1958 the coverage ratio was 72 percent. Another industry shipping iron and steel forgings was industry 3312, Blast Furnaces and Steel Mills, \$152 million.

The production index for the primary products of the industry increased to 121 in 1963 from the 1958 level of 86. The unit value index for 1963 was 129 compared to 125 in 1958. Both indexes were computed on a basis of 1954 = 100.

Industry 3391 includes establishments in two main categories: those producing iron and steel forgings for sale to the trade (commercial forge shops), and those producing forgings for use by other plants of the same company (captive forge shops). A few plants in this industry produce forgings both for sale and for interplant transfer. In addition, forgings are also produced in forgings departments of establishments classified (on the basis of their final product) in other industries. In the 1963 Census of Manufactures, establishments in the fabricated metal product and machinery industries (Major Groups 34 to 37) having such "captive" forging departments (either ferrous or nonferrous) reported data on the approximate number of employees engaged in this activity as well as similar data for 13 other metal fabricating operations such as foundry, stamping, etc. These data are shown in table 9 of the reports covering the 4-digit industries within these major groups and are summarized in Volume I, General Summary. Also, for those industries where the "captive" production of iron and steel forgings is of particular importance, the quantity of iron and steel forgings produced and consumed within such industries is shown in the materials consumed table in the reports covering these industries.

Materials consumed data, shown in table 7A of this report represent only those tonnages consumed by establishments classified in industry 3391, including consumption for secondary products. For this reason they cannot be related directly to the tonnages of forgings shown in table 6A which represent the total shipments of steel forgings, including those shipped by establishments classified in other industries.

Detailed figures on shipments of commercial steel forgings are collected on a monthly basis by the Bureau of the Census and published in Current Industrial Reports Series M33C, Commercial Steel Forgings. Footnote 2, table 6A, shows totals for the data collected in the monthly survey for 1963 and 1958. The monthly data are estimated industry totals derived from a canvass of large commercial forge shops only.

### 3392—NONFERROUS FORGINGS

This industry comprises establishments primarily engaged in manufacturing nonferrous forgings with or without the use of dies. These establishments generally operate on a job or order basis, manufacturing forgings for sale to others or for interplant transfer. Establishments which produce nonferrous forgings and which are also engaged in fabricating operations such as machining, assembling, etc., in manufacturing a specified product are classified in the industry of the specified product. Nonferrous forgings are made to a considerable extent by establishments classified in other industries that produce forgings for incorporation, in the same establishment, into such products as machinery, motor vehicles, etc. For a detailed list of products of industry 3392, refer to table 6A, product codes 3392011 to 3392098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Nonferrous Forgings Industry totaled \$165 million. This amount included shipments of nonferrous forgings (primary products) valued at \$108 million, shipments of other products (secondary products) valued at \$48 million, and miscellaneous receipts (mainly scrap and salable refuse) at \$9 million.

This industry's shipments of nonferrous forgings represented 69 percent of its total product shipments. The industry specialization ratio in 1958 was 85 percent. Secondary products shipped by this industry in 1963 included drop, upset, and press steel forgings (closed die) (\$16 million), and special dies and tools, die sets, jigs, and fixtures (\$6 million).

Shipments of nonferrous forgings by this industry represented 55 percent of all shipments of these products (\$198 million) by all industries. In 1958 the coverage ratio was 60 percent. Other industries shipping nonferrous forgings consisted mainly of industry 3351, Copper Rolling and Drawing, \$14 million; and industry 3391, Iron and Steel Forgings, \$30 million.

The production index for the primary products of the industry increased to 181 in 1963 from the 1958 level of 108. The unit value index for 1963 was 107 compared to 120 in 1958. Both indexes were computed on a basis of 1954 = 100.

Industry 3392 includes establishments in two main categories: those producing nonferrous forgings for sale to the trade (commercial forge shops), and those producing forgings for use by other plants of the same company (captive forge shops). In addition, a few plants in this industry produce forgings both for sale and for interplant transfer.

No data are available on nonferrous forgings which are produced and consumed within the same establishment in the manufacture of further fabricated products. In some instances, the fabricated product may require relatively little fabrication or processing beyond the rough forging stage. Nevertheless, establishments primarily engaged in producing such items are classified as fabricated product plants in the appropriate industry in Major Groups 34 to 37, Fabricated Metal Products, Machinery, and Transportation Equipment.

Industry 3392, Nonferrous Forgings (as defined in the 1957 edition of the Standard Industrial Classification Manual), was not treated as a separate industry in the 1954 Census of Manufactures, nor in the 1955-1957 Annual Surveys of Manufactures. For years prior to 1958, nonferrous forge shops were included in industry 3399, Primary Metal Industries, N.E.C. This industry also included establishments primarily engaged in either cold-rolling of steel sheet and strip, cold-finishing of steel bar, production of metal powders and paste, or annealing and heat treating of steel for the trade. General statistics data for plants specializing in the production of nonferrous forgings were published in table 8, Volume II, Part 2 of the 1954 Census of Manufactures. This is the source of the 1954 data published in table 1.

#### 3399—PRIMARY METAL INDUSTRIES, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing primary metal products, n.e.c., such as nonferrous nails, brads, and spikes; metal powder, flakes, and paste; and establishments primarily engaged in heat treating of metal for the trade. For a detailed list of products of industry 3399, refer to table 6A, product codes 3399111 to 3399611.

The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been slightly changed from the classification system used in 1958. The change in composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is due to the inclusion of those establishments primarily engaged in reclaiming metallics from slag.



Value of shipments and other receipts of the Primary Metal Industries, N.E.C., totaled \$285 million. This amount included shipments of primary metal industries, n.e.c. (primary products) valued at \$234 million, shipments of other products (secondary products) valued at \$18 million, and miscellaneous receipts (mainly for reclaiming metallics from slag) at \$32 million.

This industry's shipments of primary metals industries, n.e.c., represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 98 percent.

Shipments of primary metal industries, n.e.c., by this industry represented 87 percent of all shipments of these products (\$270 million) by all industries. In 1958 the coverage ratio was also 87 percent. Other industries shipping primary metal industries n.e.c., consisted mainly of industry 3356, Rolling and Drawing, N.E.C., \$5.7 million; and industry 3545, Machine Tool Accessories, \$4.5 million.

Industry 3399, by definition, includes establishments which fall into four significantly different categories: (1) those producing metal powders and paste; (2) those producing nonferrous nails, brads and spikes; (3) those annealing and heat treating metal for the trade; and (4) those reclaiming metallics from slag. Accordingly, the manufacturing plants included in this industry involve different processes depending upon the type of product produced or operation performed. Of the 754 establishments classified in this industry 69 establishments with 3,043 employees were primarily engaged in producing metal powders, flake and paste; 423 establishments with 8,961 employees were primarily engaged in such services as heat treating, annealing, etc. The remaining 262 establishments with employment totaling 2,952 were engaged in producing nonferrous nails, brads and spikes; reclaimed metallics from slag; or reported shipments of primary metal products, not specified by kind.

Industry 3399, Primary Metal Industries, N.E.C. (as defined in the 1957 edition of the Standard Industrial Classification Manual) was not treated as a separate industry in the 1954 Census of Manufactures nor the 1955-1957 Annual Surveys of Manufactures. For years prior to 1958, establishments engaged in the production of metal powders and paste and those annealing and heat treating steel for the trade were included in industry 3399, Primary Metal Industries, N.E.C. However, industry 3399 also included establishments primarily engaged in either cold-rolling of steel sheet and strip, cold-finishing of steel bar or production of nonferrous forgings. Establishments producing nonferrous nails, brads and spikes were included, prior to 1958, in industry 3481, Nails and Spikes. Industry 3481 also included establishments producing ferrous nails and spikes.

General statistics data for plants specializing in the production of metal powder and paste and those annealing and heat treating metal for the trade were tabulated in the 1954 Census of Manufactures. The data for powder mills were published in table 8, Volume II, Part 2, but the data for annealing and heat treating establishments were not published. The data for 1954 published in table 1 of this report are derived from the published and unpublished data described above. Establishments specializing in the production of nonferrous nails, brads and spikes, while not included in the 1954 figures, would not affect significantly the comparability of these data.

# PRIMARY METAL INDUSTRIES, N.E.C.: SIC 339 Value Added by Manufacture by State: 1963

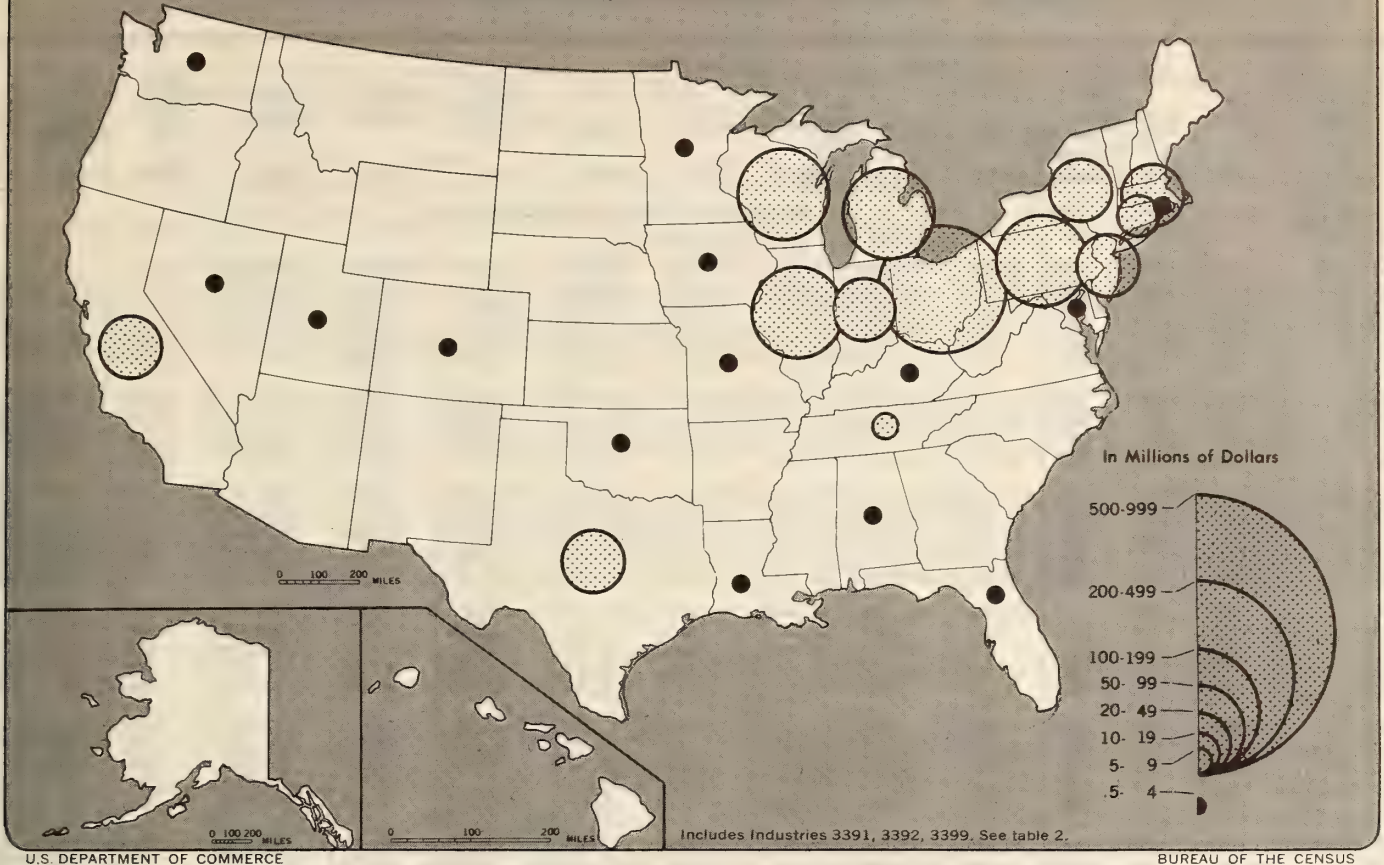




TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll (\$1,000)	Total  (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3391.—IRON AND STEEL FORGINGS														
1963 <sup>1 2</sup> .....	248	272	189	36,317	259,793	29,240	58,316	198,272	395,302	470,920	868,948	17,516	89	69
1962 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	40,901	282,125	32,953	66,018	214,110	456,510	484,015	928,755	14,594	(NA)	(NA)
1961 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	39,469	257,878	31,309	60,748	189,484	380,308	414,700	789,135	17,515	(NA)	(NA)
1960 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	40,987	261,726	32,800	64,222	197,301	593,720	470,436	854,825	15,024	(NA)	(NA)
1959 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	40,766	260,417	32,905	66,021	198,926	408,150	462,263	873,343	13,099	(NA)	(NA)
1958 <sup>1</sup> .....	287	302	190	37,739	220,542	30,154	56,699	164,054	315,928	359,672	687,270	14,268	86	72
1957 <sup>2</sup> .....	(NA)	(NA)	(NA)	42,140	254,059	35,076	69,051	196,403	396,674	473,959	879,111	21,568	85	75
1956 <sup>2</sup> .....	(NA)	(NA)	(NA)	42,132	251,346	36,125	74,101	197,162	394,543	464,927	833,902	21,205	(NA)	(NA)
1955 <sup>2</sup> .....	(NA)	(NA)	(NA)	41,717	229,434	35,678	72,474	181,069	358,864	381,653	735,498	12,284	(NA)	(NA)
1954.....	247	259	182	39,771	201,938	33,012	65,120	155,311	294,112	297,612	603,228	15,862	88	73
1953 <sup>2</sup> .....	(NA)	(NA)	(NA)	55,947	289,382	47,838	99,448	233,227	447,919	455,814	903,733	(NA)	(NA)	(NA)
1952 <sup>2</sup> .....	(NA)	(NA)	(NA)	53,966	264,354	46,120	97,724	214,277	427,678	396,000	823,678	(NA)	(NA)	(NA)
1951 <sup>2</sup> .....	(NA)	(NA)	(NA)	51,648	240,309	44,764	95,479	196,268	399,332	380,905	780,242	(NA)	(NA)	(NA)
1950 <sup>2</sup> .....	(NA)	(NA)	(NA)	39,481	166,303	34,201	69,487	133,044	262,232	266,543	528,775	(NA)	(NA)	(NA)
1949 <sup>2</sup> .....	(NA)	(NA)	(NA)	36,487	138,552	31,089	59,855	108,405	208,280	208,135	416,415	(NA)	(NA)	(NA)
1947.....	240	250	179	36,724	128,198	32,384	66,469	105,776	197,111	172,986	370,097	9,230	95	77
1939 <sup>3</sup> .....	(NA)	192	(NA)	(NA)	(NA)	14,764	(NA)	21,462	49,426	48,576	98,002	(NA)	(NA)	(NA)
1937.....	(NA)	194	(NA)	20,235	33,797	18,255	(NA)	27,659	59,611	63,224	122,835	(NA)	(NA)	(NA)
1935.....	(NA)	185	(NA)	13,857	19,302	12,253	(NA)	15,107	31,243	35,108	66,351	(NA)	(NA)	(NA)
1933.....	(NA)	181	(NA)	9,137	9,655	7,953	(NA)	7,354	15,627	16,896	32,523	(NA)	(NA)	(NA)
1931.....	(NA)	202	(NA)	(NA)	(NA)	9,971	(NA)	11,444	25,043	22,657	47,700	(NA)	(NA)	(NA)
1929.....	(NA)	218	(NA)	23,512	43,221	20,882	(NA)	34,505	84,642	71,607	156,249	(NA)	(NA)	(NA)
1927.....	(NA)	219	(NA)	17,919	30,806	15,594	(NA)	23,540	52,934	52,102	105,036	(NA)	(NA)	(NA)
1925.....	(NA)	227	(NA)	23,202	39,202	20,483	(NA)	31,588	67,342	68,577	135,919	(NA)	(NA)	(NA)
1923.....	(NA)	244	(NA)	31,415	50,268	27,723	(NA)	40,539	87,234	93,591	180,825	(NA)	(NA)	(NA)
1921.....	(NA)	252	(NA)	20,173	29,946	16,947	(NA)	20,950	39,792	45,291	85,083	(NA)	(NA)	(NA)
1919.....	(NA)	261	(NA)	33,466	51,314	29,135	(NA)	40,603	93,558	83,561	177,119	(NA)	(NA)	(NA)
1914.....	(NA)	213	(NA)	12,638	10,052	11,277	(NA)	7,850	15,447	15,300	30,747	(NA)	(NA)	(NA)
1909.....	(NA)	191	(NA)	9,456	6,568	8,461	(NA)	5,169	10,712	10,596	21,308	(NA)	(NA)	(NA)
1904.....	(NA)	146	(NA)	6,542	4,433	5,897	(NA)	3,555	6,901	6,008	12,909	(NA)	(NA)	(NA)
1899.....	(NA)	97	(NA)	5,259	3,123	4,919	(NA)	2,677	5,512	5,424	10,936	(NA)	(NA)	(NA)
INDUSTRY 3392.—NONFERROUS FORGINGS														
1963 <sup>1</sup> .....	32	34	19	6,297	47,627	4,612	10,064	32,461	71,378	93,388	165,146	4,704	69	55
1962 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	(7,050)	(48,990)	(5,442)	(11,092)	(38,308)	(78,054)	(99,674)	(175,262)	(3,983)	(NA)	(NA)
1961 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	5,429	39,985	4,083	8,435	30,392	47,247	79,186	124,628	(4,750)	(NA)	(NA)
1960 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	(5,395)	(38,393)	(4,171)	(7,785)	(27,980)	(43,213)	(72,836)	(116,573)	(2,919)	(NA)	(NA)
1959 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	(4,685)	(30,093)	(3,620)	(7,220)	(21,582)	(37,918)	(65,555)	(103,539)	(1,341)	(NA)	(NA)
1958 <sup>1</sup> .....	26	28	19	4,649	27,806	3,476	6,761	19,383	36,760	58,080	98,694	2,033	85	60
1954 <sup>4</sup> .....	(NA)	31	(NA)	5,418	25,324	4,242	8,682	18,982	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
INDUSTRY 3399.—PRIMARY METAL INDUSTRIES, N.E.C.														
1963 <sup>1 5</sup> .....	695	754	218	14,956	94,704	11,513	24,658	65,437	192,250	93,593	284,661	13,501	93	87
1962 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	12,783	74,742	9,629	20,982	48,023	143,749	85,076	231,657	(9,669)	(NA)	(NA)
1961 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	11,550	67,206	8,425	17,900	41,624	116,477	67,838	186,929	(7,026)	(NA)	(NA)
1960 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	10,488	59,658	7,997	17,085	39,462	104,435	57,926	164,562	(5,790)	(NA)	(NA)
1959 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	10,071	56,125	7,762	16,226	37,585	100,012	56,317	158,491	6,266	(NA)	(NA)
1958 <sup>1</sup> .....	567	581	149	9,795	52,717	7,359	14,813	35,088	90,656	50,095	141,172	5,615	98	87
1954 <sup>4</sup> .....	(NA)	468	(NA)	8,957	39,406	6,946	14,594	26,569	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosure of individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Includes data for Alaska and Hawaii.

<sup>2</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. Figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>3</sup>The figures for 1939 are not strictly comparable with those for earlier years. Value added by manufacture for 1939 on a basis comparable with earlier years was \$52.9 million.

<sup>4</sup>Industries 3392 and 3399 as defined for 1958 and later years, were not treated as separate industries prior to 1958. See text for detailed discussion.

<sup>5</sup>The figures for 1963 are not strictly comparable with those for earlier years. Value added by manufacturers for 1963 on a basis comparable with earlier years was \$176.8 million.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3391.—IRON AND STEEL FORGINGS													
Total.....	272	189	36,317	259,793	29,240	58,316	198,272	395,302	470,920	868,948	17,516	37,739	315,928
New England.....	18	14	3,208	21,556	2,351	4,788	14,932	26,175	27,648	54,130	1,080	3,737	28,955
Massachusetts....	10	9	2,702	18,434	1,955	3,972	12,691	20,640	21,784	42,840	804	2,668	21,298
Middle Atlantic....	58	42	5,099	31,911	4,122	8,158	23,959	50,637	48,179	100,053	1,361	8,100	56,554
New York.....	16	12	1,478	9,401	1,189	2,406	7,120	14,137	10,411	24,769	274	3,549	18,912
New Jersey.....	13	8	647	3,944	526	896	2,910	6,921	5,280	12,762	163	519	4,646
Pennsylvania.....	29	22	2,974	18,566	2,407	4,856	13,929	29,579	32,488	62,522	924	4,032	32,996
East North Central.	130	95	25,586	189,841	20,957	41,554	148,207	289,019	356,118	645,866	13,448	23,607	209,347
Ohio.....	44	32	6,538	48,363	5,375	10,884	38,335	69,389	96,032	167,055	3,720	5,347	43,958
Indiana.....	8	6	3,318	23,210	2,834	5,716	19,073	38,330	47,067	82,752	1,171	2,863	24,313
Illinois.....	37	24	4,751	36,358	3,868	7,436	27,180	58,088	76,421	134,257	2,119	4,647	44,852
Michigan.....	34	27	5,096	39,664	4,347	8,943	31,441	62,467	82,385	145,706	2,239	4,352	40,913
Wisconsin.....	7	6	5,883	42,246	4,533	8,575	32,178	60,745	54,213	116,096	4,196	6,398	55,311
West North Central.	9	-	52	280	41	83	220	461	443	907	21	28	247
South.....	29	19	1,179	6,951	889	1,919	4,603	11,258	15,944	27,345	340	763	7,186
Texas.....	16	14	724	4,418	533	1,177	2,977	7,838	9,020	16,963	186	421	4,516
West.....	28	19	1,193	9,254	880	1,814	6,351	17,752	22,588	40,647	1,269	1,504	13,639
California.....	25	17	1,114	8,835	820	1,695	6,030	16,961	21,852	39,103	1,254	1,310	11,975
INDUSTRY 3392.—NONFERROUS FORGINGS													
Total.....	34	19	6,297	47,627	4,612	10,064	32,461	71,378	93,388	165,146	4,704	4,649	36,760
Northeast.....	11	7	1,881	14,457	1,442	3,048	10,013	21,982	24,304	47,081	789	1,845	16,090
North Central and South.....	14	6	3,625	26,993	2,590	5,761	18,193	39,690	56,037	95,431	3,122	( <sup>2</sup> )	( <sup>2</sup> )
Pacific.....	9	6	791	6,177	580	1,255	4,255	9,706	13,047	22,634	793	( <sup>2</sup> )	( <sup>2</sup> )
California.....	9	6	791	6,177	580	1,255	4,255	9,706	13,047	22,634	793	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3399.—PRIMARY METAL INDUSTRIES, N.E.C.													
Total.....	754	218	14,956	94,704	11,513	24,658	65,437	192,250	93,593	284,661	13,501	9,795	90,656
New England.....	74	14	1,237	7,499	878	1,837	4,865	15,165	6,667	20,528	1,170	537	5,031
Connecticut.....	40	5	479	3,048	333	720	1,836	7,462	3,598	11,051	618	( <sup>2</sup> )	( <sup>2</sup> )
Middle Atlantic....	157	43	3,028	18,885	2,225	4,670	12,174	41,551	26,135	67,595	2,645	2,286	22,443
New York.....	56	16	884	5,237	684	1,395	3,601	10,047	3,875	13,868	980	( <sup>2</sup> )	( <sup>2</sup> )
New Jersey.....	49	14	1,178	7,435	792	1,671	4,228	16,747	14,771	31,222	930	998	10,999
Pennsylvania.....	52	13	966	6,213	749	1,604	4,345	14,757	7,489	22,505	735	( <sup>2</sup> )	( <sup>2</sup> )
North Central and South.....	394	136	8,809	56,281	6,971	15,078	40,034	111,236	50,296	161,819	7,950	( <sup>2</sup> )	( <sup>2</sup> )
Wisconsin.....	18	8	453	2,842	361	759	1,943	5,535	1,334	6,881	266	283	2,367
Minnesota.....	11	5	245	1,490	190	379	1,007	2,399	784	3,188	448	127	1,551
West.....	129	25	1,882	12,039	1,439	3,073	8,364	24,298	10,495	34,719	1,736	( <sup>2</sup> )	( <sup>2</sup> )
California.....	109	22	1,661	10,594	1,244	2,677	7,201	21,302	7,072	28,619	1,400	( <sup>2</sup> )	( <sup>2</sup> )

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup> General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3391, Iron and Steel Forgings: New England—New Hampshire, 1 (1-19); Rhode Island, 1 (20-99); Connecticut, 6 (250-499); West North Central—Minnesota, 3 (20-99); Iowa, 5 (20-99); Missouri, 1 (1-19); South Atlantic—Maryland, 1 (1-19); West Virginia, 1 (20-99); North Carolina, 3 (1-19); East South Central—Tennessee, 4 (169); West South Central—Louisiana, 2 (20-99); Oklahoma, 2 (100-249); Mountain—Idaho, 1 (20-99); Pacific—Washington, 2 (20-99).

SIC 3392, Nonferrous Forgings: New England—Massachusetts, 1 (1,000-2,499); Connecticut, 3 (250-499); Middle Atlantic—New Jersey, 2 (1-19); Pennsylvania, 5 (500-999); East North Central—Ohio, 2 (1,000-2,499); Indiana, 1 (100-249); Illinois, 3; Michigan, 2 (1-19); West North Central—Missouri, 2 (20-99); South Atlantic—Maryland, 2 (20-99); Florida, 1 (1-19); West South Central—Texas, 1 (1,000-2,499).

SIC 3399, Primary Metal Industries, N.E.C.: New England—New Hampshire, 1 (1-19); Vermont, 1 (1-19); Massachusetts, 19 (500-999); Rhode Island, 13 (100-249); East North Central—Ohio, 84 (1,000-2,499); Indiana, 32 (500-999); Illinois, 53 (1642); Michigan, 110 (2,500-4,999); West North Central—Iowa, 5 (20-99); Missouri, 10 (347); Nebraska, 1 (1-19); Kansas, 3 (20-99); South Atlantic—Delaware, 1 (1-19); Maryland, 5 (1-19); Virginia, 1 (1-19); West Virginia, 1 (1-19); North Carolina, 4 (20-99); South Carolina, 2 (1-19); Georgia, 4 (20-99); Florida, 8 (20-99); East South Central—Kentucky, 2 (100-249); Tennessee, 7 (213); Alabama, 6 (20-99); West South Central—Arkansas, 1 (1-19); Louisiana, 1 (1-19); Oklahoma, 6 (20-99); Texas, 18 (250-499); Mountain—Montana, 1 (1-19); Colorado, 3 (20-99); Arizona, 2 (1-19); Utah, 3 (20-99); Nevada, 1 (20-99); Pacific—Washington, 4 (20-99); Oregon, 6 (20-99).

<sup>2</sup> This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

<sup>3</sup> See footnote 5, table 1.



TABLE 3. Detailed Statistics: 1963

Item	Iron and steel forgings (SIC 3391)	Nonferrous forgings (SIC 3392)	Primary metal industries, n.e.c. (SIC 3399)
Primary product specialization ratio <sup>1</sup> .....	.89	.69	.93
Coverage ratio <sup>2</sup> .....	.69	.55	.87
Establishments, total.....number..	272	34	754
With 1 to 19 employees.....do....	83	15	536
With 20 to 99 employees.....do....	107	10	198
With 100 employees or more.....do....	82	9	20
Proprietors and working partners.....do....	59	8	221
All employees (average for the year).....do....	36,317	6,297	14,956
Payroll (all employees), total for year.....\$1,000..	259,793	47,627	94,704
Production workers:			
Average for the year.....number..	29,240	4,612	11,513
March.....do....	29,371	4,530	11,258
May.....do....	29,248	4,491	11,514
August.....do....	29,096	4,587	11,487
November.....do....	29,245	4,840	11,793
Man-hours.....1,000..	58,316	10,064	24,658
January-March.....do....	14,663	2,429	6,069
April-June.....do....	15,338	2,514	6,238
July-September.....do....	13,461	2,442	6,072
October-December.....do....	14,854	2,679	6,279
Wages.....\$1,000..	198,272	32,461	65,437
Cost of materials, etc., total.....do....	470,920	93,388	93,593
Materials, parts, containers, and supplies consumed.....do....	408,283	85,270	71,197
Cost of resales.....do....	19,719	128	2,945
Fuels consumed.....do....	20,993	1,848	8,428
Electric energy:			
Purchased:			
Quantity.....million kw.-hrs..	563	212	482
Cost.....\$1,000..	7,785	2,228	7,136
Generated less sold.....million kw.-hrs..	(D)	-	(D)
Contract work.....\$1,000..	14,140	3,914	3,887
Value of shipments (including resales), total.....do....	868,948	165,146	284,661
Value of resales.....do....	20,103	142	3,861
Value added by manufacture, adjusted.....do....	395,302	71,378	192,250
Manufacturers' inventories:			
Beginning of year, total.....do....	127,545	33,518	21,541
Finished products.....do....	10,672	6,317	8,294
Work-in-process.....do....	44,411	18,065	4,467
Materials, supplies, fuel, etc.....do....	72,462	9,136	8,780
End of year, total.....do....	125,015	34,304	21,675
Finished products.....do....	11,103	5,678	8,711
Work-in-process.....do....	41,951	18,324	5,232
Materials, supplies, fuel, etc.....do....	71,961	10,302	7,732
Expenditures for plant and equipment, total.....do....	21,898	5,872	14,735
New, total.....do....	17,516	4,704	13,501
New structures and additions to plant.....do....	3,268	269	2,493
New machinery and equipment.....do....	14,248	4,435	11,008
Used plant and equipment.....do....	4,382	1,168	1,234
Selected operating ratios:			
Payroll/Total employment.....	7,153	7,563	6,332
Production workers/Total employment.....	.81	.73	.77
Man-hours/Production workers.....	1,994	2,182	2,142
Production worker wages/Man-hours.....	3.40	3.23	2.65
Cost of materials and payrolls/Total value of shipments....	.84	.85	.66
Cost of materials/Total value of shipments.....	.54	.57	.33
Adjusted value added/Total employment.....	10,885	11,335	12,854
Salaries and wages/Adjusted value added.....	.66	.67	.49

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3391.—IRON AND STEEL FORGINGS											
Establishments.....number..	272	32	20	31	65	43	46	22	8	4	1
All employees:											
Total.....do....	36,317	56	133	419	2,753	3,155	7,207	7,369	5,116	<u>10,109</u>	(D)
Payroll.....\$1,000..	259,793	360	773	2,477	18,687	23,220	50,373	51,940	36,835	<u>75,128</u>	(D)
Value added, adjusted.....do....	395,302	696	1,528	4,148	27,489	41,629	82,390	74,656	53,194	<u>109,572</u>	(D)
Value of shipments.....do....	868,948	1,274	2,617	8,363	66,810	87,523	175,981	175,902	114,518	<u>235,960</u>	(D)
Capital expenditures, new...do....	17,516	37	89	195	1,031	2,195	2,032	3,229	2,026	<u>6,682</u>	(D)
INDUSTRY 3392.—NONFERROUS FORGINGS											
Establishments.....number..	34	3	2	10	4	7	3	2	-	3	-
All employees:											
Total.....do....	6,297	<u>19</u>	(D)	136	115	571	<u>1,249</u>	(D)	-	4,207	-
Payroll.....\$1,000..	47,627	<u>113</u>	(D)	778	782	4,172	<u>9,332</u>	(D)	-	32,450	-
Value added, adjusted.....do....	71,378	<u>167</u>	(D)	1,583	1,436	7,328	<u>15,049</u>	(D)	-	45,815	-
Value of shipments.....do....	165,146	<u>451</u>	(D)	2,909	2,581	17,548	<u>33,288</u>	(D)	-	108,369	-
Capital expenditures, new...do....	4,704	<u>23</u>	(D)	23	107	222	<u>944</u>	(D)	-	3,385	-
INDUSTRY 3399.—PRIMARY METAL INDUSTRIES, N.E.C.											
Establishments.....number..	754	209	151	176	152	46	18	2	-	-	-
All employees:											
Total.....do....	14,956	377	1,044	2,428	4,676	2,991	<u>3,440</u>	(D)	-	-	-
Payroll.....\$1,000..	94,704	2,394	6,521	14,327	30,226	18,650	<u>22,586</u>	(D)	-	-	-
Value added, adjusted.....do....	192,250	5,440	13,608	27,321	59,307	38,580	<u>47,994</u>	(D)	-	-	-
Value of shipments.....do....	284,661	8,183	18,941	37,189	85,102	63,932	<u>71,314</u>	(D)	-	-	-
Capital expenditures, new...do....	13,501	542	924	1,464	4,103	2,739	<u>3,729</u>	(D)	-	-	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. n.e.c. Not elsewhere classified.

TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
						Col. B Col. B+C				Col. B Col. F
						(percent)				(percent)
						(\$1,000)				(\$1,000)
A	B	C	D	E	F	G	H	I		
3391	Iron and steel forgings.....1963..	868,948	744,996	87,915	36,037	89	1,075,596	744,996	330,600	169
	1958 .	687,270	570,851	89,658	26,761	86	782,694	570,851	211,843	72
3392	Nonferrous forgings.....1963..	165,146	108,392	47,773	8,981	69	198,416	108,392	90,024	55
	1958 .	98,694	78,938	14,158	5,598	85	131,995	78,938	53,057	60
3399	Primary metal industries, n.e.c...1963 <sup>2</sup> ..	284,661	234,392	18,252	<sup>3</sup> 32,017	93	270,496	234,392	36,104	87
	1958..	141,172	131,396	1,782	7,994	98	150,498	131,396	19,102	87

Note: See Introduction for an explanation of terms used.

<sup>1</sup>Included in this industry are open die hammer and press forgings which are also primary to industry 3312, Blast Furnaces and Steel Mills. A coverage ratio computed on the basis of including both industries to which open die hammer and press forgings are primary would total 80 percent; 69 percent by industry 3391 and 11 percent by industry 3312. The remaining 20 percent was shipped by establishments in other industries.

<sup>2</sup>See footnote 5, table 1.<sup>3</sup>Consists largely of receipts for reclaiming metallics from slag.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Iron and steel forgings (SIC 3391)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Nonferrous forgings (SIC 3392)	Other industries
IRON AND STEEL FORGINGS INDUSTRY					NONFERROUS FORGINGS INDUSTRY—Con.				
	Total shipments and receipts of the industry.....	(X)	868,948	(X)		Secondary products—Continued			
	Primary products.....	11,075,596	744,996	330,600	19251	Other secondary products.....	(X)	25,771	(X)
33911	Drop, upset, and press steel forgings (closed die).....	764,822	576,810	188,012	33919	Guided missiles, complete.....	(X)	(over 2)	(X)
33919	Open die or smith forgings (open frame hammer or press) (produced from purchased materials).....	1294,384	151,796	142,588	34941	Open die or smith forgings (open frame hammer or press) (produced from purchased material).....	(X)	(over 2)	(X)
33910	Iron and steel forgings, n.s.k....	16,390	16,390	-	34942	Metal valves for piping systems (except plumbing and heating valves).....	(X)	(over 2)	(X)
	Secondary products.....	(X)	87,915	(X)	35331	Metal fittings and unions for piping systems.....	(X)	(over 2)	(X)
33920	Nonferrous forgings.....	(X)	30,071	(X)	35333	Rotary oil and gas field drilling machinery and equipment.....	(X)	(over 2)	(X)
34942	Metal fittings and unions for piping systems.....	(X)	23,418	(X)		Oil and gas field production machinery and equipment (except pumps).....	(X)	(over 2)	(X)
35441	Special dies and tools, die sets, jigs and fixtures.....	(X)	9,818	(X)		Miscellaneous receipts.....	(X)	8,981	(X)
	Other secondary products.....	(X)	11,454	(X)		Scrap and salable refuse.....	(X)	8,034	(X)
33230	Steel castings.....	(X)	(2-5)	(X)		Contract and commission work.....	(X)	475	(X)
34930	Steel springs.....	(X)	(over 2)	(X)		Value of resales.....	(X)	142	(X)
37175	Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufactures.....	(X)	(over 2)	(X)		Other miscellaneous receipts.....	(X)	330	(X)
	Miscellaneous receipts.....	(X)	36,037	(X)	33920	Listing of other manufactures with over \$2 million shipments of the primary product class:			
	Contract and commission work....	(X)	5,182	(X)		3351 Copper rolling and drawing..	(X)	(X)	14,063
	Scrap and salable refuse.....	(X)	8,574	(X)		3352 Aluminum rolling and drawing	(X)	(X)	(10-20)
	Value of resales.....	(X)	20,103	(X)		3391 Iron and steel forgings....	(X)	(X)	30,071
	Other miscellaneous receipts.....	(X)	2,178	(X)		3461 Metal stampings.....	(X)	(X)	(5-10)
						3494 Valves and pipe fittings....	(X)	(X)	(over 2)
	Listing of other industries with over \$2 million shipments of each primary product class:						All industries	Primary metal industries, n.e.c. (SIC 3399)	Other industries
33911	3312 Blast furnaces and steel mills.....	(X)	(X)	31,401		PRIMARY METAL INDUSTRY			
	3392 Nonferrous forgings.....	(X)	(X)	16,142		Total shipments and receipts of the industry.....	(X)	284,661	(X)
	3423 Hand and edge tools.....	(X)	(X)	(5-10)		Primary products.....	270,496	234,392	36,104
	3443 Boiler shop products.....	(X)	(X)	(2-5)	33991	Metal powders and paste.....	106,832	79,436	27,396
	3494 Valves and pipe fittings....	(X)	(X)	(2-5)	33996	Heat treating of metal for the trade.....	140,288	140,288	-
	3522 Farm machinery and equipment.....	(X)	(X)	(5-10)	33992	Primary metal products, n.e.c....	11,248	14,668	8,708
	3531 Construction machinery....	(X)	(X)	(2-5)	33990	Primary metal industries, n.e.c., n.s.k.....	12,128	18,252	(X)
	3717 Motor vehicles and parts...	(X)	(X)	(over 2)		Secondary products.....	(X)	(over 2)	(X)
33919	3323 Steel foundries.....	(X)	(X)	(5-10)	35662	Speed changers, industrial high speed drives, and gears.....	(X)	(over 2)	(X)
	3392 Nonferrous forgings.....	(X)	(X)	(over 2)	37175	Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufactures.....	(X)	(over 2)	(X)
	3494 Valves and pipe fittings....	(X)	(X)	(2-5)		Miscellaneous receipts.....	(X)	232,017	(X)
	3544 Special dies and tools.....	(X)	(X)	(over 2)		Contract and commission work....	(X)	226,644	(X)
		All industries	Nonferrous forgings (SIC 3392)	Other industries		Value of resales.....	(X)	3,861	(X)
	NONFERROUS FORGINGS INDUSTRY					Other.....	(X)	1,512	(X)
	Total shipments and receipts of the industry.....	(X)	165,146	(X)		Listing of other industries with over \$2 million shipments of each primary product class:			
33920	Nonferrous forgings.....	198,416	108,392	90,024	23991	1929 Ammunition, n.e.c.....	(X)	(X)	(over 2)
	Secondary products.....	(X)	47,773	(X)		3356 Rolling and drawing, n.e.c....	(X)	(X)	5,744
33911	Drop, upset and press steel forgings (closed die).....	(X)	16,142	(X)		3545 Machine tool accessories....	(X)	(X)	4,539
35441	Special dies and tools, die sets, jigs and fixtures.....	(X)	5,860	(X)					

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Includes \$120,653 thousand for product class 33129, Press and hammer steel forgings made in steel mills, which is primary to industry 3312.

<sup>2</sup>Consists largely of receipts for reclaiming metallics from slag.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (short tons)	Value (\$1,000)	Quantity (short tons)	Value (\$1,000)
3391- --	IRON AND STEEL FORGINGS, TOTAL.....	(NA)	<sup>1</sup> 1,075,596	(NA)	<sup>1</sup> 782,694
33911 --	Closed die (drop, upset and press) forgings <sup>2</sup> .....	(X)	764,822	(X)	535,319
33911 11	Carbon steel.....	993,880	393,835	705,486	273,609
33911 31	Alloy steel (except stainless).....	566,993	324,560	364,424	206,756
33911 51	Stainless steel.....	8,515	34,819	9,622	38,548
33911 00	Drop, upset, and press steel forgings, not specified by grade.....	(X)	11,608	(X)	16,406
33919 --	Open die hammer and press forgings <sup>2</sup> .....	(X)	294,384	(NA)	234,641
33129 --					
33129 --	Made in steel works (industry 3312).....	(NA)	120,653	129,286	119,487
33919 --	Made in steel forgings (industry 3391) and other industries.....	(NA)	173,731	(NA)	115,154
33129 21	Open die hammer forgings:	118,882	52,479	<sup>3</sup> 126,836	<sup>3</sup> 59,174
33919 21					
33129 23	Alloy steel (except stainless).....	52,006	58,534	<sup>4</sup> 138,291	<sup>4</sup> 152,249
33919 22					
33129 23	Made in industry 3312.....	12,532	19,588	75,657	88,921
33919 22	Made in industry 3391 and other industries.....	39,474	38,946	62,634	63,328
33129 25	Stainless steel.....	4,104	10,243	<sup>5</sup> 7,749	<sup>5</sup> 18,310
33919 23					
33129 61	Open die press forgings:	127,155	45,567	(3)	(3)
33919 61					
33129 61	Made in industry 3312.....	21,336	11,144	(3)	(3)
33919 41	Made in industry 3391 and other industries.....	105,819	34,423		
33129 63	Alloy steel (except stainless).....	129,982	101,076	(4)	(4)
33919 42					
33129 63	Made in industry 3312.....	49,793	52,501	(4)	(4)
33919 42	Made in industry 3391 and other industries.....	80,189	48,575		
33129 65	Stainless steel.....	2,538	5,127	(5)	(5)
33919 65					
33129 00	Open die hammer and press forgings, not specified by grade.....	(X)	21,358	(NA)	4,908
33919 00					
33910 00	Iron and steel forgings, n.s.k.....	(X)	16,390	(NA)	12,734
3392- --	NONFERROUS FORGINGS, TOTAL.....	(X)	198,416	(X)	131,995
33920 11	Copper and copper-base alloy.....	30,286	44,864	10,002	14,325
33920 33	Aluminum and aluminum-base alloy:	34,774	89,775	22,055	68,188
33920 35					
33920 51	Magnesium and magnesium-base alloy.....	311	2,308	(X)	(6)
33920 61	Titanium and titanium-base alloy.....	2,220	33,047	884	33,379
33920 98	Other nonferrous metal forgings.....	(X)	15,937	(X)	<sup>6</sup> 6,034
33920 00	Nonferrous forgings, n.s.k.....	(X)	2,825	(X)	4,076
3399- --	PRIMARY METAL INDUSTRIES, N.E.C., TOTAL.....	(X)	270,496	(X)	150,498
33991 --	Metal powders and paste.....	(X)	106,832	(X)	55,108
33991 11	Aluminum and aluminum-base alloy <sup>7</sup> .....	<sup>8</sup> 23,341	24,901	<sup>8</sup> 13,867	15,409
33991 33					
33991 55					
33991 98					
33991 00	Metal powders and paste, not specified by type.....	(X)	1,850	(X)	1,483
33992 --	Primary metal products, n.e.c.....	(X)	11,248	1,953	2,051
33992 11	Nonferrous nails, brads, tacks, and staples.....	4,524	4,289	1,953	2,051
33992 98					
33992 00					
33996 11	Heat treating of metal for the trade (heat treating, pickling, annealing, etc.) <sup>12</sup> .....	(X)	140,288	(X)	85,258
33990 00	Primary metal products, n.s.k.....	(X)	12,128	(X)	8,081

Footnotes on next page.



**TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Footnotes for Table 6A--33E

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Includes product class 33129, open die hammer and press forgings made in blast furnaces and steel mills.

<sup>2</sup>These figures are not strictly comparable with tonnage figures shown in Current Industrial Reports Series M33C, Commercial Steel Forgings, in that the latter include only forgings for sale, whereas the 1963 and 1958 Census of Manufactures also include interplant transfers of forgings. Accordingly, a direct comparison with the monthly Current Industrial Reports Series is not possible. Forgings produced and consumed are not included in either the census or the Current Industrial Reports figures. The annual totals in the monthly Current Industrial Reports survey for commercial steel forgings were as follows:

Item	1963 (short tons)	1958 (short tons)
Closed die (drop, upset and press) forgings:		
Carbon.....	785,267	528,716
Alloy, including stainless.....	391,346	295,141
Open die hammer and press forgings:		
Carbon.....	156,074	92,096
Alloy, including stainless.....	219,936	163,480

<sup>3</sup>In 1958 product codes 3312921, 3391921, 3312961, and 3391941 were combined.

<sup>4</sup>In 1958 product codes 3312923, 3391922, 3312963, and 3391942 were combined.

<sup>5</sup>In 1958 product codes 3312925, 3391923, 3312965, and 3391943 were combined.

<sup>6</sup>In 1958, magnesium and magnesium-base alloy forgings were included with "Other nonferrous forgings" (3392098).

<sup>7</sup>Monthly figures are also shown in Current Industrial Reports Series M33-2, Aluminum Ingot and Mill Products.

<sup>8</sup>Represents aluminum content.

<sup>9</sup>Quarterly figures are also shown in Current Industrial Reports Series BDSAF-84, Shipments of Copper-Base Mill and Foundry Products.

<sup>10</sup>Represents copper content.

<sup>11</sup>Represents iron content.

<sup>12</sup>Consists almost exclusively of receipts for work done on materials owned by others. Includes only work done by establishments classified in industry 3399.

**TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
339--	Primary metal industries, n.e.c. <sup>1</sup> .....1963..	138	125
	.....1958..	91	124
3391-	Iron and steel forgings.....1963..	121	129
	.....1958..	86	125
33911	Closed die (drop, upset and press) forgings....1963..	109	130
	.....1958..	83	125
33919	Open die hammer and press forgings made in industry 3391.....1963..	175	126
	.....1958..	93	126
3392-	Nonferrous forgings.....1963..	181	107
	.....1958..	108	120
3399-	Primary metal industries, n.e.c.....1963..	(1)	(1)
	.....1958..	(1)	(1)
33991	Metal powders and paste.....1963..	188	105
	.....1958..	94	116

n.e.c. Not elsewhere classified.

<sup>1</sup>Adjusted to include products of industry 3399, for which separate indexes are not shown because comparable quantity data were not obtained for a significant portion of product classes 33992 and 33996.

TABLE 6C. **Product Classes—Value Shipped by All Manufacturing Establishments, 1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3391-	Iron and steel forgings <sup>2</sup> .....	1,075,596	1,036,185	869,450	959,776	951,022	782,694	704,624	439,560
33911	Drop, upset and press steel forgings (closed die).....	764,822	776,185	628,665	708,513	715,817	535,319	513,873	296,375
33919	Open die or smith forgings <sup>2</sup> (open frame hammer or press) (produced from purchased materials).....	294,384	260,000	240,785	251,763	235,205	234,641	188,323	127,984
33910	Iron and steel forgings, n.s.k.....	16,390					12,734	2,528	15,201
33920	Nonferrous forgings.....	198,416	223,151	164,717	151,032	151,303	131,995	112,359	29,374
3399-	Primary metal industries, n.e.c.....	270,496	228,104	191,341	184,392	178,422	150,498	(NA)	(NA)
33991	Metal powders and paste.....	106,832	88,553	70,287	71,325	73,684	55,108	50,349	19,288
33992	Other primary metal products, including nonferrous nails, brads, spikes, and staples.....	11,248	139,551	121,054	113,067	104,738	2,051	5,429	(NA)
33996	Heat treating of steel for the trade.....	140,288					85,258	(NA)	(NA)
33990	Primary metal industries, n.e.c., n.s.k....	12,128					8,081	2,049	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>2</sup>Includes total for product class 33129, Press and hammer steel forgings (made in steel mills), which is primary to industry 3312.



TABLE 6D. **Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
DROP, UPSET AND PRESS STEEL FORGINGS (CLOSED DIE) (33911)			OPEN DIE OR SMITH FORGINGS, (OPEN FRAME HAMMER OR PRESS) (PRODUCED FROM PURCHASED MATERIALS) (33129 AND 33919)—Continued			METAL POWDERS AND PASTE (33991)—Continued		
United States, total....	764,822	535,319				East North Central.....	27,471	10,533
New England.....	41,606	42,412				Indiana.....	7,418	( <sup>2</sup> )
Massachusetts.....	35,498	32,418				Illinois.....	3,107	( <sup>2</sup> )
Middle Atlantic.....	76,802	64,967	North Central.....	94,545	( <sup>2</sup> )	Michigan.....	10,923	2,371
Pennsylvania.....	43,666	46,787	Ohio.....	43,391	10,300	West North Central.....	1,244	( <sup>2</sup> )
East North Central.....	584,061	384,035	Illinois.....	15,820	12,244	South.....	15,620	( <sup>2</sup> )
Ohio.....	123,023	104,797	Michigan.....	27,344	10,678			
Indiana.....	75,746	48,907				West.....	5,594	( <sup>2</sup> )
Illinois.....	114,727	76,886	South.....	5,600	( <sup>2</sup> )	California.....	2,144	( <sup>2</sup> )
Michigan.....	194,265	92,537	Texas.....	4,126	( <sup>2</sup> )			
Wisconsin.....	76,300	60,908	West.....	17,441	( <sup>2</sup> )	NONFERROUS FORGINGS (33920)	1963 <sup>1</sup>	
West South Central.....	17,232	9,148	California.....	14,981	12,658	United States, total....		198,416
Pacific.....	19,471	16,619				New England.....		34,237
All other divisions.....	25,650	18,138				Middle Atlantic.....		34,379
OPEN DIE OR SMITH FORGINGS (OPEN FRAME HAMMER OR PRESS) (PRODUCED FROM PURCHASED MATERIALS) (33129 AND 33919)			METAL POWDERS AND PASTE (33991)			East North Central.....		82,924
United States, total....	294,384	234,641	United States, total....	106,832	55,108	Michigan.....		22,158
Northeast.....	176,798	176,428	New England.....	8,262	2,543	Pacific.....		29,335
Massachusetts.....	1,419	( <sup>2</sup> )	Middle Atlantic.....	48,641	30,894	California.....		29,335
New York.....	17,205	18,673	New York.....	4,126	4,037			
Pennsylvania.....	147,129	144,746	New Jersey.....	25,589	17,001	All other divisions.....		17,541
			Pennsylvania.....	18,926	9,856			

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million reported.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 33911, Rhode Island, Connecticut, New York, New Jersey, Missouri, Kentucky, Tennessee, Oklahoma, Texas, and California; 33129 and 33919, Connecticut, New Jersey, Indiana, Wisconsin, and Washington; 33920, Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Ohio, Indiana, Illinois, Wisconsin, Kentucky, and Texas; 33991, Massachusetts, Connecticut, Ohio, Missouri, Kentucky, Tennessee, and Nevada.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3391.—IRON AND STEEL FORGINGS			
	Materials, containers, and supplies, total.....		(X)	408,283	(X)	317,019
	Carbon steel:					
331041	Ingots.....	Short tons.....	12,518	1,535	21,693	2,101
331042	Blooms, billets and slabs.....	..do.....	378,074	52,858	298,468	38,655
331043	Bars.....	..do.....	577,850	96,529	493,026	69,651
	Alloy steel (except stainless):					
331044	Ingots.....	..do.....	18,970	4,156	32,059	5,827
331045	Blooms, billets and slabs.....	..do.....	182,187	53,879	164,148	40,588
331046	Bars.....	..do.....	351,519	85,228	283,091	64,056
	Stainless steel:					
331047	Ingots.....	..do.....	987	1,432	1,302	1,856
331048	Blooms, billets and slabs.....	..do.....	7,760	8,695	10,431	11,585
331049	Bars.....	..do.....	6,317	7,424	8,269	9,097
	Aluminum and aluminum-base alloy:					
333471	Ingot.....	..do.....	(D)	(D)	(NA)	(NA)
335208	Metal shapes.....	1,000 pounds.....	3,125	1,914	(NA)	(NA)
	Titanium and titanium-base alloy:					
335600	Ingot.....	..do.....	3,920	10,947	(NA)	(NA)
335601	Mill shapes.....	..do.....			(NA)	(NA)
970099	All other material and components, parts, containers and supplies consumed.....		(X)	68,707	(X)	61,288
976000	Materials, n.s.k. <sup>1</sup> .....		(X)	14,979	(X)	12,315
	Material	Unit of measure	1963 <sup>2</sup>			
			Quantity	Delivered cost (\$1,000)		
			INDUSTRY 3392.—NONFERROUS FORGINGS			
	Materials, containers, and supplies, total.....				(X)	85,270
	Carbon steel:					
331041	Ingots.....	Short tons.....				
331042	Blooms, billets and slabs.....	..do.....				
331043	Bars.....	..do.....				
	Alloy steel (except stainless):					
331044	Ingots.....	..do.....			23,793	13,079
331045	Blooms, billets and slabs.....	..do.....				
	Stainless steel:					
331047	Ingots.....	..do.....				
331048	Blooms, billets and slabs.....	..do.....				
331049	Bars.....	..do.....				
	Aluminum and aluminum-base alloy:					
333471	Ingot.....	..do.....		(D)	(D)	
335208	Mill shapes.....	1,000 lbs.....		66,792		26,088
	Titanium and titanium-base alloy:					
335600	Ingot.....	..do.....			1,548	4,977
335601	Mill shapes.....	..do.....				
970099	All other materials and components, parts, containers, and supplies consumed.....				(X)	40,329
976000	Materials, n.s.k.....				(X)	797

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

<sup>1</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

<sup>2</sup>Comparable data are not available for 1958.



**TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962**

Item	Iron and steel forgings (SIC 3391)	Nonferrous forgings (SIC 3392)	Primary metal industries, n.e.c. (SIC 3399)
Total cost of purchased fuels and electric energy.....\$1,000...	31,421	4,545	10,173
Total cost of purchased fuels.....do.....	23,644	2,077	5,266
Bituminous coal, lignite, and anthracite:			
Quantity.....1,000 short tons..	488	(S)	(S)
Cost.....\$1,000...	3,447	(S)	(S)
Coke and breeze:			
Quantity.....1,000 short tons..	(S)	-	(S)
Cost.....\$1,000...	(S)	-	(S)
Fuel oil (distillate and residual):			
Quantity.....1,000 barrels of 42 gallons...	2,440	78	(S)
Cost.....\$1,000...	9,832	257	(S)
Gas (natural, manufactured, still, blast furnace, and coke oven):			
Quantity.....million cu. ft...	17,853	2,063	7,735
Cost.....\$1,000...	9,758	1,447	4,235
Other fuels.....do.....	(S)	(S)	528
Electric energy:			
Purchased:			
Quantity.....million kw.-hrs..	554	209	386
Cost.....\$1,000...	7,777	2,468	4,907
Generated less sold.....million kw.-hrs..	8	-	-
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....\$1,000...	572	126	103
Prime movers, total.....do.....	53	5	6
Driving generators.....do.....	19	1	(Z)
Not driving generators.....do.....	34	4	6
Electric motors, total.....do.....	525	122	97
Driven by purchased energy.....do.....	519	122	97
Driven by energy generated at establishment.....do.....	6	-	-
Aggregate horsepower per 100 production workers.....	1,764	2,111	1,070

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3391	IRON AND STEEL FORGINGS										
	Entire industry.....	272	36,317	259,793	29,240	58,316	198,272	395,302	470,920	868,648	17,516
	Establishments with—										
	90% or more specialization..	227	23,998	174,126	19,899	40,229	135,419	274,615	344,046	618,453	10,748
	75-89% specialization.....	16	3,701	24,433	2,986	5,709	18,584	37,633	37,809	76,050	1,402
33911	Drop, upset and press steel forgings (closed die) (primary product class of estab.).....	140	29,256	208,457	23,702	44,898	161,170	313,373	372,606	687,227	13,546
	Establishments with—										
	90% or more specialization....	101	13,624	97,653	11,528	23,099	77,206	150,844	194,374	344,689	5,606
	75-89% specialization.....	17	4,838	33,723	4,096	8,093	27,238	50,027	58,091	107,461	1,616
33919	Open die or smith forgings (open frame hammer or press) produced from purchased materials (primary product class of estab.).....	72	6,219	46,132	4,881	10,070	33,457	72,068	90,078	163,552	3,375
	Establishments with—										
	90% or more specialization....	57	3,520	24,414	2,744	5,672	17,044	35,345	36,159	72,395	943
3399-	PRIMARY METAL INDUSTRIES, N.E.C.										
	Entire industry.....	754	14,956	94,704	11,513	24,658	65,437	192,250	93,593	284,661	13,501
	Establishments with—										
	90% or more specialization....	627	11,646	72,579	8,925	19,165	49,548	142,683	70,579	212,389	9,540
	75-89% specialization.....	9	523	3,499	370	802	2,109	7,187	6,077	13,476	625
33991	Metal powders and paste (primary product class of estab.).....	69	3,043	18,973	2,116	4,398	12,065	48,151	45,011	90,670	3,573
	Establishments with—										
	90% or more specialization....	60	2,126	12,745	1,509	3,118	8,209	35,330	35,200	69,501	3,570
33996	Heat treating of steel for the trade (primary product class of estab.).....	423	8,961	57,048	6,954	15,066	38,968	101,777	30,557	132,945	6,450
	Establishments with—										
	90% or more specialization....	404	8,348	53,204	6,506	14,149	36,598	93,965	27,684	121,935	5,811
	75-89% specialization.....	10	361	2,418	265	560	1,494	5,496	1,319	7,040	455

n.e.c. Not elsewhere classified.



TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3391.—IRON AND STEEL FORGINGS							
Machine shop.....	100	30	42	28	3,943	57	466	3,420
Tool and die shop.....	95	25	35	35	2,413	43	368	2,002
	INDUSTRY 3392.—NONFERROUS FORGINGS							
Machine shop.....	14	4	8	2	796	6	(D)	(D)
Tool and die shop.....	15	5	5	5	398	7	51	340

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

Item	Industry	
	3391	3392
Total number of establishments in the industry.....	272	34
Number of establishments which reported one or more of the specified operations.....	156	20
Percent of industry production workers in these establishments.....	(80-85)	(95-100)
Number of establishments which reported "none" of the operations apply.....	39	10
Percent of industry production workers in these establishments.....	(0-5)	(0-5)
Percent of industry production workers in establishments which completed the metalworking operations inquiry.....	(85-90)	(95-100)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not based on the total employment in the establishment.

## Fabricated Metal Products

- 34A Metal cans, cutlery, hand tools, and general hardware
- 34B Heating apparatus, except electric, and plumbing fixtures
- 34C Fabricated structural metal products
- 34D Screw machine products, bolts, metal stampings, and metal services
- 34E Fabricated metal products, n.e.c.

This major group includes establishments primarily engaged in manufacturing a wide variety of fabricated metal products. Other important segments of the metal fabricating industries are classified in other major groups such as machinery, in Major Groups 35 and 36, transportation equipment in Major Group 37, instruments and related products in Major Group 38, jewelry and silverware in Major Group 39, and metal furniture and fixtures in Major Group 25.

The industries included in this major group encompass a varied group of fabricated metal finished products (cutlery, hardware, oil burners, plumbing fixtures, metal doors, safes, etc.), materials or components for incorporation into other products (sheet metal work, steel springs, bolts and nuts, etc.), containers (metal cans, metal shipping barrels and drums, and collapsible tubes), and service operations performed on a job or order basis for the trade (for example, galvanizing, coating, and engraving).

The products of Major Group 34 are used by establishments in other manufacturing industries—in construction, mines, farms, transportation, commerce, and in households. The

basic metals consumed are generally produced by establishments in Major Group 33, Primary Metal Industries.

Data on the number of establishments engaged in selected metalworking operations and the number of employees working in the operations are shown in table 9 for the 4-digit industries in Major Group 34. The operations shown in that table do not represent, of course, a complete list or, for many metal fabricating industries in this group, even the most important ones. Although the production processes in this area adhere to a general pattern of specified metalworking and metal fabricating operations (e.g. machine shop, steel plate fabrication, etc.), there is a substantial variation in the number and types of processes performed by an individual establishment as well as from industry to industry. Within many of these industries, establishments typically purchase mill shapes and carry out the entire fabricating of the metal until it emerges as a finished product. In other industries, however, such as in the plumbing and nonelectric heating subgroup, the establishments may be primarily engaged in assembling component parts produced by other companies or other plants of the same company.



# FABRICATED METAL PRODUCTS: MAJOR GROUP 34

Value Added by Manufacture by State: 1963

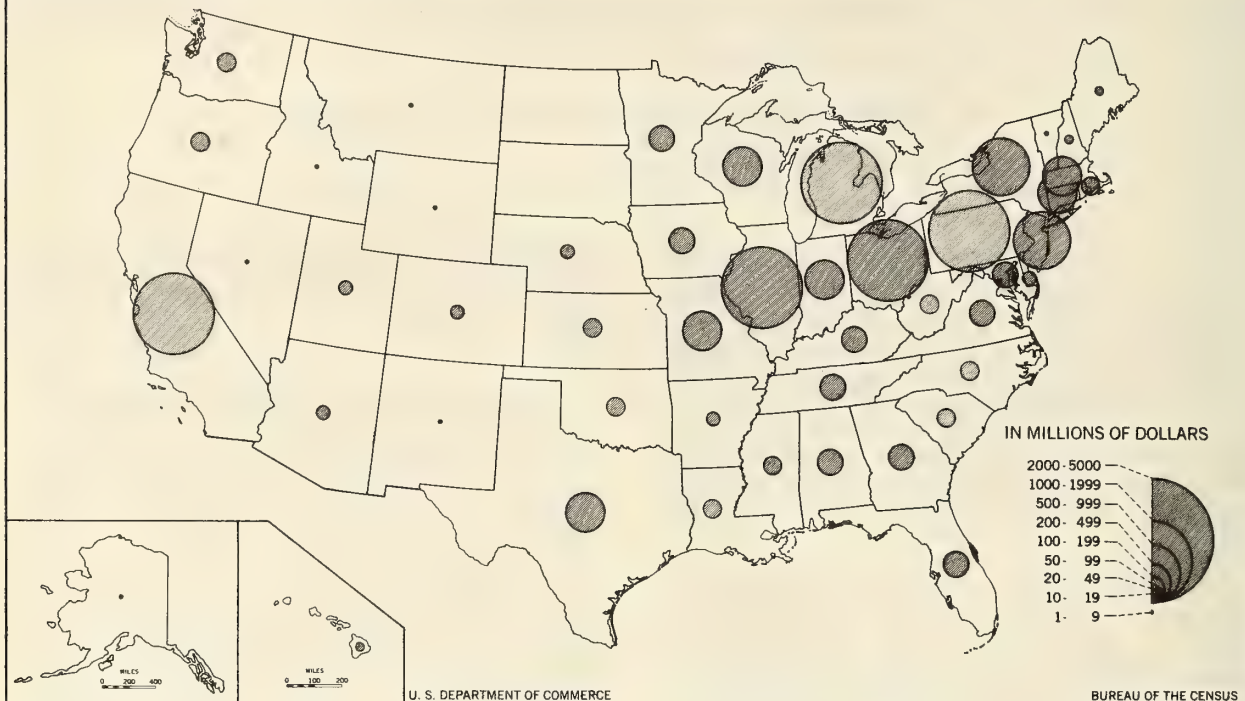


TABLE 1. General Statistics: 1963 and Earlier Years

Year and item	Establishments		All employees <sup>1</sup>		Production workers			Value added by manufacture, adjusted <sup>2</sup>	Cost of materials <sup>3</sup>	Value of shipments <sup>3</sup>	Capital expenditures, new <sup>4</sup>
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)				
ALL MANUFACTURING ESTABLISH- MENTS, TOTAL:											
1963 . . . . .	27 275	9 394	1 110 649	6 643 976	843 795	1 721 034	4 483 688	11 791 081	11 397 850	23 065 207	570 077
1958 . . . . .	25 029	8 480	1 090 280	5 634 162	814 532	1 608 624	3 733 889	9 439 843	(NA)	19 230 112	463 594
1954 . . . . .	(NA)	(NA)	1 040 123	4 535 400	821 172	1 652 366	3 174 186	7 653 391	(NA)	(NA)	432 491
ADMINISTRATIVE AND AUXILIARY UNITS:											
1963 . . . . .	300	184	28 547	256 468	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1958 . . . . .	246	157	29 774	208 902	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1954 . . . . .	(NA)	(NA)	20 717	138 063	(X)	(X)	(X)	(X)	(X)	(X)	(X)
OPERATING MANUFACTURING ESTABLISHMENTS:											
1963 . . . . .	26 975	9 210	1 082 102	6 387 508	843 795	1 721 034	4 483 688	11 791 081	11 397 850	23 065 207	570 077
1958 . . . . .	24 783	8 323	1 060 506	5 425 260	814 532	1 608 624	3 733 889	9 439 843	(NA)	19 230 112	463 594
1954 . . . . .	22 516	7 348	1 019 406	4 397 337	821 172	1 652 366	3 174 186	7 653 391	(NA)	(NA)	432 491
OPERATING MANUFACTURING ESTABLISHMENTS:											
1962 . . . . .	(NA)	(NA)	1 084 275	6 233 521	833 683	1 717 009	4 283 314	11 127 837	11 201 507	23 309 448	529 749
1961 . . . . .	(NA)	(NA)	1 050 243	5 810 163	802 522	1 628 579	3 953 230	10 290 577	10 476 255	20 759 933	416 446
1960 . . . . .	(NA)	(NA)	1 086 214	5 888 599	835 476	1 699 300	4 034 300	10 330 477	(NA)	(NA)	483 487
1959 . . . . .	(NA)	(NA)	1 088 598	5 805 269	842 850	1 713 784	4 004 210	10 487 642	(NA)	(NA)	504 758
1957 . . . . .	(NA)	(NA)	1 113 534	5 383 103	880 066	1 750 841	3 802 896	9 543 780	(NA)	(NA)	527 507
1956 . . . . .	(NA)	(NA)	1 101 839	5 126 533	880 999	1 773 959	3 669 191	9 243 841	(NA)	(NA)	497 854
1955 . . . . .	(NA)	(NA)	1 093 509	4 863 276	885 194	1 787 018	3 532 819	8 774 849	(NA)	(NA)	457 783
1953 . . . . .	(NA)	(NA)	1 117 600	4 765 443	915 614	1 884 551	3 555 086	8 143 660	(NA)	(NA)	446 208
1952 . . . . .	17 953	(NA)	1 007 589	4 124 226	820 088	1 691 783	3 036 801	7 168 308	(NA)	(NA)	327 450
1951 . . . . .	17 552	(NA)	1 035 246	3 988 317	852 592	1 765 403	2 970 170	7 138 582	(NA)	(NA)	354 110
1950 . . . . .	16 975	(NA)	988 783	3 404 061	806 801	1 658 280	2 523 638	6 210 759	(NA)	(NA)	317 027
1949 . . . . .	(NA)	(NA)	872 229	2 883 510	710 280	1 428 451	2 088 285	4 834 171	(NA)	(NA)	230 879
1947 . . . . .	16 777	(NA)	973 174	2 833 684	823 012	1 694 666	2 189 032	4 920 304	(NA)	(NA)	304 822
1939 . . . . .	9 532	(NA)	(NA)	(NA)	451 087	(NA)	546 654	1 400 883	(NA)	(NA)	(NA)
1937 . . . . .	8 588	(NA)	(NA)	(NA)	493 091	(NA)	604 863	1 388 835	(NA)	(NA)	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The figures for 1939 through 1963 include data for employees of manufacturing establishments who were engaged in distribution and construction work. The extent to which data for such employees are included in the figures for earlier years is not known.

<sup>2</sup>For the period 1954 to 1963, figures represent adjusted value added by manufacture and for earlier years, unadjusted value added. Adjusted value added is equal to value of shipments (including resales of finished products) less cost of finished products, materials, supplies, fuel, electric energy and contract work, plus the net change in the value of finished products and work-in-process inventories between the beginning and end of the year, without adjustment for price changes. Unadjusted value added is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. See Introduction, "Value Added by Manufacture."

<sup>3</sup>The total value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same classification. For a more complete explanation, see Introduction.

<sup>4</sup>The figures for 1958 to 1963 include expenditures for plants under construction and not yet in operation.

<sup>5</sup>In addition to data for operating establishments, figures for employment and payroll for manufacturing central administrative office and auxiliary units are shown for the

years 1949 to 1953 in the annual survey of manufactures volumes. Data for these years are not available for the years 1955 to 1957, 1959 to 1962, and prior to 1949.

<sup>6</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, consequently, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>7</sup>The figures for 1939 to 1963 are not entirely comparable with those for 1937 because the 1937 figures exclude data for establishments primarily engaged in producing lawn sprinklers, spun ware, nonferrous metal novelties, tackle blocks, aluminum ornamental work, aluminum stampings, and machine knives (except metalworking) and include data for establishments primarily engaged in making caulking guns, toilet seats, brooders, cast aluminum cooking ware, and hair clippers. Value added for 1939 on a basis strictly comparable with 1937 was \$1,340.4 million.

<sup>8</sup>The figures for 1935 and earlier years are not sufficiently comparable with those for 1937 to 1963 to be shown in this table principally because of the inclusion in earlier years of data for establishments primarily engaged in the manufacture of valves and fittings, except plumbers' and the exclusion of data for establishments primarily engaged in the manufacture of stamped, pressed, and spun aluminum ware.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
		Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
34	FABRICATED METAL PRODUCTS, TOTAL . . . . .	26 975	9 210	1 082 102	6 387 508	843 795	1 721 034	4 483 688	11 791 081	570 077	1 060 506	9 439 843
	NORTHEAST . . . . .	8 892	2 922	340 143	1 977 187	263 903	535 116	1 385 095	3 621 642	165 806	352 347	3 022 812
	NEW ENGLAND . . . . .	2 502	811	91 701	506 051	70 544	144 213	345 924	977 934	52 861	96 038	766 543
	MAINE . . . . .	55	16	1 471	7 997	1 092	2 266	5 902	15 259	730	1 578	14 129
	NEW HAMPSHIRE . . . . .	71	26	2 107	10 087	1 731	3 571	7 150	17 535	741	1 593	10 695
	VERMONT . . . . .	30	7	575	2 875	455	948	1 987	5 160	431	531	4 570
	MASSACHUSETTS . . . . .	1 105	372	39 608	222 180	30 030	62 047	151 375	450 999	20 095	40 941	356 402
	RHODE ISLAND . . . . .	357	74	7 606	36 628	6 121	12 151	26 070	66 746	2 701	7 899	56 013
	CONNECTICUT . . . . .	884	316	40 921	226 284	31 115	63 230	153 440	422 235	28 163	43 496	324 734
	MIDDLE ATLANTIC . . . . .	6 390	2 111	248 442	1 471 136	193 359	390 903	1 039 171	2 643 708	112 945	256 309	2 256 269
	NEW YORK . . . . .	3 078	900	86 191	491 640	67 421	137 069	342 981	865 811	35 702	88 272	738 471
	NEW JERSEY . . . . .	1 545	487	57 451	355 299	44 763	92 435	250 752	692 337	32 111	53 279	508 042
	PENNSYLVANIA . . . . .	1 767	724	104 800	624 197	81 175	161 399	445 438	1 085 860	45 132	114 758	1 009 756
	NORTH CENTRAL . . . . .	9 337	3 627	459 554	2 804 008	360 125	737 325	1 980 315	5 202 657	243 283	449 920	4 133 260
	EAST NORTH CENTRAL . . . . .	7 863	3 099	402 642	2 475 139	316 057	647 631	1 751 233	4 576 665	213 932	394 430	3 599 226
	OHIO . . . . .	2 016	826	115 296	713 431	88 712	180 105	497 341	1 345 844	61 901	115 401	1 054 966
	INDIANA . . . . .	729	312	43 045	252 924	33 565	67 154	177 059	462 711	19 657	39 765	357 776
	ILLINOIS . . . . .	2 418	949	121 879	747 508	96 352	197 039	531 644	1 366 458	63 635	127 460	1 198 160
	MICHIGAN . . . . .	2 078	790	86 619	549 809	69 805	146 473	400 621	1 025 281	46 961	79 052	677 117
	WISCONSIN . . . . .	622	222	35 803	211 467	27 623	56 860	144 568	376 371	21 778	32 752	311 207
	WEST NORTH CENTRAL . . . . .	1 474	528	56 912	328 869	44 068	89 694	229 082	625 992	29 351	55 490	534 034
	MINNESOTA . . . . .	383	141	13 279	78 200	10 607	21 497	56 122	142 036	6 811	12 140	117 232
	IOWA . . . . .	217	78	9 249	51 365	7 009	14 474	34 923	101 304	3 844	8 527	94 219
	MISSOURI . . . . .	561	199	24 303	144 927	18 702	37 833	100 931	272 854	13 938	25 230	228 440
	NORTH DAKOTA . . . . .	15	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	270	2 185
	SOUTH DAKOTA . . . . .	26	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	273	4 250
	NEBRASKA . . . . .	99	37	3 845	21 226	2 831	5 706	13 054	40 312	2 337	3 583	25 552
	KANSAS . . . . .	173	67	5 447	29 372	4 370	9 007	21 776	63 114	2 229	5 267	48 156
	SOUTH . . . . .	4 298	1 446	171 415	897 170	134 557	276 773	627 764	1 675 713	93 733	150 642	1 221 306
	SOUTH ATLANTIC . . . . .	1 869	614	70 829	367 381	55 922	115 616	258 165	710 082	44 718	62 384	493 298
	DELAWARE . . . . .	36	15	1 617	9 792	1 224	2 484	6 881	20 768	599	2 341	21 659
	MARYLAND . . . . .	283	104	13 340	81 547	10 385	21 680	58 522	153 270	8 425	14 477	135 399
	DISTRICT OF COLUMBIA . . . . .	24	5	452	2 811	396	710	2 267	3 814	93	549	4 642
	VIRGINIA . . . . .	190	81	9 926	52 154	7 531	15 534	33 530	100 642	7 687	8 325	57 644
	WEST VIRGINIA . . . . .	85	43	7 177	36 732	5 936	11 611	28 233	79 395	2 225	7 701	60 010
	NORTH CAROLINA . . . . .	271	82	9 063	43 219	7 260	15 477	29 235	75 021	6 492	6 320	43 895
	SOUTH CAROLINA . . . . .	113	34	4 008	17 978	3 022	6 506	11 889	34 893	2 652	1 992	16 227
	GEORGIA . . . . .	257	93	10 787	51 464	8 975	18 834	38 739	104 723	7 486	6 973	48 928
	FLORIDA . . . . .	610	157	14 459	71 684	11 193	22 780	48 869	137 556	9 059	13 706	104 894
	EAST SOUTH CENTRAL . . . . .	867	344	48 402	249 805	38 420	76 632	176 284	461 271	23 467	42 930	344 700
	KENTUCKY . . . . .	198	95	12 410	70 851	9 683	19 494	49 927	129 531	7 705	12 263	106 419
	TENNESSEE . . . . .	310	122	17 220	84 897	13 448	26 455	58 338	148 040	7 705	15 611	110 601
	ALABAMA . . . . .	245	89	13 576	70 434	10 899	21 282	50 572	132 425	4 711	12 358	107 671
	MISSISSIPPI . . . . .	114	38	5 196	23 623	4 390	9 401	17 447	51 275	3 346	2 698	20 009
	WEST SOUTH CENTRAL . . . . .	1 562	488	52 184	279 984	40 215	84 525	193 315	504 360	25 548	45 328	383 308
	ARKANSAS . . . . .	123	41	4 088	17 207	3 343	6 917	12 705	33 859	1 853	27 472	19 464
	LOUISIANA . . . . .	191	54	7 214	41 480	5 630	11 818	30 353	77 997	3 500	5 892	52 491
	OKLAHOMA . . . . .	231	73	7 889	44 155	5 973	12 559	28 551	83 932	2 387	7 862	72 344
	TEXAS . . . . .	1 017	320	32 993	177 142	25 269	53 231	121 706	308 572	17 808	28 827	239 009
	WEST . . . . .	4 444	1 214	111 116	709 640	85 296	171 996	490 878	1 297 552	66 832	106 821	1 051 792
	MOUNTAIN . . . . .	498	131	10 830	63 199	8 252	16 653	44 528	114 155	4 470	10 135	83 658
	MONTANA . . . . .	27	5	282	1 565	201	389	1 059	3 184	128	317	2 461
	IDAHO . . . . .	31	5	444	2 528	340	690	1 767	6 218	285	547	3 496
	WYOMING . . . . .	12	1	138	650	101	199	413	971	92	156	1 005
	COLORADO . . . . .	182	51	4 183	26 240	3 123	6 384	17 328	46 976	2 060	3 991	37 442
	NEW MEXICO . . . . .	27	5	334	1 614	274	565	1 180	2 938	122	492	4 075
	ARIZONA . . . . .	114	23	2 577	13 748	1 964	3 814	9 832	23 558	931	1 720	12 700
	UTAH . . . . .	89	35	2 639	15 420	2 071	4 263	11 888	28 851	741	2 792	21 390
	NEVADA . . . . .	16	6	233	1 434	178	349	1 061	1 459	111	120	1 089
	PACIFIC . . . . .	3 946	1 083	100 286	646 441	77 044	155 343	446 350	1 183 397	62 362	97 458	987 766
	WASHINGTON . . . . .	309	69	6 021	40 802	4 754	9 154	29 978	76 474	2 409	6 661	65 122
	OREGON . . . . .	245	63	4 938	30 739	3 750	7 204	21 105	58 626	2 845	5 002	46 659
	CALIFORNIA . . . . .	3 359	942	88 535	570 297	67 922	137 747	392 047	1 036 525	56 533	85 023	856 353
	ALASKA . . . . .	8	1	34	387	29	69	308	705	25	(D)	(D)
	HAWAII . . . . .	25	8	758	4 216	589	1 169	2 912	11 067	550	(D)	(D)
341	METAL CANS, TOTAL <sup>1</sup> . . . . .	270	206	53 245	377 031	46 110	97 340	311 058	830 515	66 507	54 238	668 606

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963								1958		
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
									(number)	(number)	(number)	(\$1,000)
342	CUTLERY, HAND TOOLS, HARDWARE, TOTAL	2 022	810	136 554	799 483	108 001	221 382	572 588	1 707 558	100 636	135 718	1 202 227
	NORTHEAST . . . . .	744	335	53 083	297 381	41 561	84 174	211 234	661 419	43 867	57 774	483 739
	NEW ENGLAND . . . . .	266	121	25 888	141 860	19 763	39 615	98 447	352 705	26 195	29 792	258 759
	MAINE . . . . .	12	4	371	1 541	239	482	1 289	1 973	(D)	(D)	(D)
	NEW HAMPSHIRE . . . . .	16	10	699	3 332	614	1 284	2 463	5 005	91	535	2 935
	VERMONT . . . . .	6	4	260	1 191	228	478	933	2 231	(D)	(D)	(D)
	MASSACHUSETTS . . . . .	108	45	9 541	52 455	7 206	14 599	37 409	171 872	9 275	10 268	120 520
	RHODE ISLAND . . . . .	24	6	1 009	4 907	869	1 747	3 706	7 371	107	1 676	11 446
	CONNECTICUT . . . . .	100	52	14 008	78 434	10 607	21 025	52 647	164 253	16 311	16 466	118 400
	MIDDLE ATLANTIC . . . . .	478	214	27 195	155 521	21 798	44 559	112 787	308 714	17 672	27 982	224 980
	NEW YORK . . . . .	244	102	12 526	69 460	9 743	19 527	47 844	129 507	9 013	11 891	94 427
	NEW JERSEY . . . . .	107	43	8 253	53 324	6 775	14 642	40 779	119 946	6 598	8 400	74 862
	PENNSYLVANIA . . . . .	127	69	6 416	32 737	5 280	10 390	24 164	59 261	2 061	7 691	55 691
	NORTH CENTRAL . . . . .	737	310	59 980	376 381	48 728	101 202	281 281	793 876	43 470	59 079	544 729
	EAST NORTH CENTRAL . . . . .	624	266	55 322	350 856	44 925	93 667	263 345	747 292	42 071	53 854	500 541
	OHIO . . . . .	169	67	14 101	91 754	11 083	22 500	67 100	202 794	15 927	13 087	122 957
	INDIANA . . . . .	63	26	4 335	23 924	3 553	7 178	17 992	48 184	3 754	4 300	37 585
	ILLINOIS . . . . .	188	86	15 063	85 389	12 037	24 467	61 651	169 591	5 420	15 117	146 839
	MICHIGAN . . . . .	159	68	18 735	132 377	15 687	34 390	103 930	281 120	15 384	18 717	164 686
	WISCONSIN . . . . .	45	19	3 088	17 412	2 565	5 132	12 672	45 603	1 586	2 633	28 474
	WEST NORTH CENTRAL . . . . .	113	44	4 658	25 525	3 803	7 535	17 936	46 584	1 399	5 225	44 188
	MINNESOTA . . . . .	32	11	1 378	7 204	1 058	2 099	4 677	13 859	383	1 581	12 158
	IOWA . . . . .	22	6	633	3 295	522	960	2 253	6 426	330	734	9 659
	MISSOURI . . . . .	43	21	2 079	12 440	1 719	3 474	8 884	21 054	584	2 456	18 860
	KANSAS . . . . .	7	4	285	1 317	254	528	1 094	2 172	24	(D)	(D)
	SOUTH . . . . .	196	67	12 505	58 170	9 660	19 477	37 935	123 382	5 273	8 546	68 709
	SOUTH ATLANTIC . . . . .	91	29	6 397	32 197	4 832	9 972	20 850	69 506	2 488	4 593	37 017
	VIRGINIA . . . . .	9	6	2 010	10 718	1 515	3 235	6 327	22 694	934	(D)	(D)
	NORTH CAROLINA . . . . .	21	9	1 180	6 077	893	1 853	3 706	10 529	665	652	4 044
	FLORIDA . . . . .	33	8	952	4 130	682	1 429	2 672	12 145	246	411	2 364
	EAST SOUTH CENTRAL . . . . .	45	23	4 746	20 627	3 755	7 293	13 450	43 571	2 421	2 933	24 358
	KENTUCKY . . . . .	14	6	591	3 437	392	759	1 896	6 789	159	464	5 129
	TENNESSEE . . . . .	18	8	2 471	10 220	1 997	3 825	6 989	23 464	1 911	(D)	(D)
	ALABAMA . . . . .	6	3	491	1 797	440	842	1 485	3 000	123	579	4 542
	MISSISSIPPI . . . . .	7	6	1 193	5 173	926	1 867	3 080	10 318	228	(D)	(D)
	WEST SOUTH CENTRAL . . . . .	60	15	1 362	5 346	1 073	2 212	3 635	10 305	364	1 020	7 334
	ARKANSAS . . . . .	15	8	774	2 991	573	1 202	1 844	5 973	186	636	4 348
	TEXAS . . . . .	36	6	395	1 739	328	701	1 301	3 257	171	219	1 629
	WEST . . . . .	345	98	10 986	67 551	8 052	16 529	42 138	129 371	8 007	10 319	105 050
	MOUNTAIN . . . . .	20	7	408	2 161	307	613	1 317	4 932	139	336	2 802
	COLORADO . . . . .	11	6	351	1 922	262	542	1 152	4 491	104	293	2 537
	PACIFIC . . . . .	325	91	10 578	65 390	7 745	15 916	40 821	124 439	7 868	9 983	102 248
	WASHINGTON . . . . .	18	4	266	1 570	215	421	1 225	3 098	213	505	4 988
	OREGON . . . . .	25	8	528	2 728	378	736	1 885	5 199	236	368	3 682
	CALIFORNIA . . . . .	282	79	9 784	61 092	7 152	14 759	37 711	116 142	7 419	9 110	93 578

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963								1958		
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
		(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(number)	(\$1,000)
343	PLUMBING & HEATING EXC ELEC, TOTAL .	979	427	68 160	391 355	51 379	101 524	263 067	790 263	30 220	71 775	671 914
	NORTHEAST . . . . .	340	136	17 969	105 062	13 516	26 662	70 390	216 934	6 604	18 272	175 633
	NEW ENGLAND . . . . .	73	25	2 342	12 638	1 775	3 639	8 404	22 358	770	2 245	19 213
	CONNECTICUT . . . . .	24	14	1 127	5 940	849	1 699	3 865	10 515	373	978	8 889
	MIDDLE ATLANTIC . . . . .	267	111	15 627	92 424	11 741	23 023	61 986	194 576	5 834	16 027	156 420
	NEW YORK . . . . .	104	36	4 423	26 035	3 311	6 624	17 310	52 099	1 257	5 111	48 089
	NEW JERSEY . . . . .	62	26	3 682	21 465	2 721	5 353	14 091	45 231	1 592	3 260	29 645
	PENNSYLVANIA . . . . .	101	49	7 522	44 924	5 709	11 046	30 585	97 246	2 985	7 656	78 686
	NORTH CENTRAL . . . . .	349	178	32 824	194 117	23 966	47 512	126 931	396 539	13 803	34 252	341 127
	EAST NORTH CENTRAL . . . . .	282	149	29 095	173 603	20 945	41 299	111 791	351 260	12 376	30 131	293 657
	OHIO . . . . .	90	51	11 421	70 568	8 400	16 198	46 489	153 449	5 397	10 687	108 457
	INDIANA . . . . .	34	22	4 057	23 529	2 812	5 586	13 514	51 368	2 561	3 217	29 086
	ILLINOIS . . . . .	78	39	5 596	33 908	4 091	8 126	21 160	67 865	1 896	7 914	81 006
	MICHIGAN . . . . .	54	20	3 574	19 157	2 302	4 483	12 117	32 322	1 036	3 527	28 938
	WISCONSIN . . . . .	26	17	4 447	26 441	3 340	6 906	18 511	46 256	1 486	4 786	46 170
	WEST NORTH CENTRAL . . . . .	67	29	3 729	20 514	3 021	6 213	15 140	45 279	1 427	4 121	47 470
	IOWA . . . . .	8	6	619	3 741	420	807	2 200	6 130	361	1 458	21 583
	MISSOURI . . . . .	30	11	1 285	6 768	938	1 901	4 255	12 059	298	(D)	(D)
	SOUTH . . . . .	118	52	11 310	57 283	9 075	17 885	41 057	118 172	6 197	12 826	96 279
	SOUTH ATLANTIC . . . . .	51	22	3 994	18 891	3 217	6 364	13 794	39 343	3 050	3 842	29 700
	NORTH CAROLINA . . . . .	6	2	125	407	103	198	298	383	21	(D)	(D)
	SOUTH CAROLINA . . . . .	4	3	174	459	151	270	318	853	295	(D)	(D)
	GEORGIA . . . . .	6	5	631	2 453	511	1 064	1 660	4 966	206	353	1 082
	EAST SOUTH CENTRAL . . . . .	29	20	5 673	30 324	4 579	8 886	22 208	58 320	2 036	7 566	54 026
	ALABAMA . . . . .	8	4	931	3 772	809	1 630	2 799	7 000	283	735	3 988
	WEST SOUTH CENTRAL . . . . .	38	10	1 643	8 068	1 279	2 635	5 055	20 509	1 111	1 418	12 553
	TEXAS . . . . .	29	8	1 186	5 873	893	1 874	3 696	16 085	884	1 066	9 810
	WEST . . . . .	172	61	6 057	34 893	4 822	9 465	24 689	66 219	3 621	6 425	58 875
	MOUNTAIN . . . . .	14	1	154	484	125	236	395	1 218	42	161	1 080
	PACIFIC . . . . .	158	60	5 903	34 409	4 697	9 229	24 294	65 001	3 579	6 264	57 795
	WASHINGTON . . . . .	14	3	174	978	130	259	719	1 459	55	374	2 379
	CALIFORNIA . . . . .	132	54	5 634	32 882	4 497	8 852	23 243	62 258	3 500	5 710	54 221
344	STRUCTURAL METAL PRODUCTS, TOTAL . .	10 199	3 220	325 470	1 922 670	242 426	490 819	1 281 056	3 219 813	126 134	340 622	2 962 860
	NORTHEAST . . . . .	2 970	900	89 156	542 094	66 661	133 700	366 640	859 176	29 336	101 796	903 065
	NEW ENGLAND . . . . .	672	188	13 437	79 590	10 096	20 754	52 347	133 885	5 147	13 720	117 111
	MAINE . . . . .	27	7	519	2 930	365	812	1 834	6 114	273	542	5 141
	NEW HAMPSHIRE . . . . .	32	10	714	3 280	558	1 139	2 218	6 221	285	446	3 467
	VERMONT . . . . .	8	3	206	1 234	143	308	759	2 180	71	214	1 963
	MASSACHUSETTS . . . . .	367	112	7 775	46 878	5 950	12 310	31 573	74 954	2 850	7 955	65 725
	RHODE ISLAND . . . . .	64	11	778	3 889	572	1 170	2 634	7 483	183	873	6 976
	CONNECTICUT . . . . .	174	45	3 445	21 379	2 508	5 015	13 329	36 933	1 485	3 690	33 839
	MIDDLE ATLANTIC . . . . .	2 298	712	75 719	462 504	56 565	112 946	314 293	725 291	24 189	88 076	785 954
	NEW YORK . . . . .	1 001	293	25 950	162 900	19 292	39 371	109 246	267 764	6 963	29 565	267 313
	NEW JERSEY . . . . .	556	146	12 387	75 881	9 401	19 223	51 776	128 760	3 405	11 831	115 062
	PENNSYLVANIA . . . . .	741	273	37 382	223 723	27 872	54 352	153 271	328 767	13 821	46 680	403 579
	NORTH CENTRAL . . . . .	2 864	1 002	106 751	647 505	78 120	158 556	421 808	1 112 570	44 280	114 025	1 034 383
	EAST NORTH CENTRAL . . . . .	2 184	760	83 662	513 861	61 048	123 825	334 138	877 891	35 574	89 047	812 524
	OHIO . . . . .	603	222	27 683	170 995	19 528	39 366	107 133	289 454	11 369	30 584	277 357
	INDIANA . . . . .	240	93	12 146	73 257	8 934	17 720	48 323	118 112	3 582	11 879	102 883
	ILLINOIS . . . . .	625	218	19 773	118 197	14 946	30 334	80 791	215 553	9 707	21 640	211 990
	MICHIGAN . . . . .	498	155	13 960	86 686	10 594	21 760	58 086	156 320	6 893	15 602	141 751
	WISCONSIN . . . . .	218	72	10 100	64 726	7 046	14 645	39 805	98 452	4 023	9 342	78 543
	WEST NORTH CENTRAL . . . . .	680	242	23 089	133 644	17 072	34 731	87 670	234 679	8 706	24 978	221 859
	MINNESOTA . . . . .	148	55	4 167	24 504	3 218	6 509	16 907	36 286	1 565	4 707	43 476
	IOWA . . . . .	111	38	3 785	21 275	2 929	6 019	14 772	39 654	1 086	2 823	28 474
	MISSOURI . . . . .	221	75	9 107	55 198	6 692	13 645	36 694	97 710	2 982	11 493	94 052
	NORTH DAKOTA . . . . .	10	1	241	1 198	166	327	677	1 918	70	256	2 082
	SOUTH DAKOTA . . . . .	18	4	457	2 274	309	704	1 375	3 763	109	370	3 630
	NEBRASKA . . . . .	66	28	2 609	14 320	1 839	3 601	7 859	26 988	1 837	2 537	26 612
	KANSAS . . . . .	106	41	2 723	14 875	1 919	3 926	9 386	28 360	1 057	2 792	23 533
	SOUTH . . . . .	2 611	819	86 070	445 867	65 285	134 625	298 823	759 398	34 179	79 027	594 603
	SOUTH ATLANTIC . . . . .	1 181	372	34 997	176 916	26 649	54 470	117 061	318 252	15 844	31 277	228 576
	DELAWARE . . . . .	22	8	477	2 912	388	825	2 267	8 056	172	686	6 542
	MARYLAND . . . . .	154	54	4 276	24 402	2 942	6 065	14 564	40 318	1 259	3 867	33 453
	DISTRICT OF COLUMBIA . . . . .	15	5	358	2 397	317	555	1 935	3 092	69	472	3 947
	VIRGINIA . . . . .	132	61	6 107	32 482	4 552	9 272	20 652	59 174	2 519	5 706	35 464
	WEST VIRGINIA . . . . .	45	15	1 800	10 037	1 424	2 780	7 403	21 207	530	1 970	15 949
	NORTH CAROLINA . . . . .	171	43	4 371	21 768	3 417	7 192	14 778	31 824	3 624	2 995	21 977
	SOUTH CAROLINA . . . . .	83	21	2 001	9 382	1 501	3 401	6 252	17 064	1 475	1 612	14 229
	GEORGIA . . . . .	174	56	5 998	29 346	4 797	10 001	21 158	59 340	3 256	4 398	29 934
	FLORIDA . . . . .	385	109	9 609	44 190	7 311	14 379	28 052	78 177	2 940	9 571	67 081

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
344	STRUCTURAL METAL PRODUCTS—CONTINUED											
	EAST SOUTH CENTRAL . . . . .	515	169	20 280	108 493	15 420	31 230	74 358	174 778	8 041	20 385	158 597
	KENTUCKY . . . . .	100	39	3 137	16 238	2 352	4 722	11 135	22 796	884	3 222	27 442
	TENNESSEE . . . . .	181	60	7 829	42 828	5 806	11 481	27 918	59 631	3 648	8 609	59 940
	ALABAMA . . . . .	156	50	6 944	37 839	5 252	10 708	26 462	67 227	2 257	6 608	56 653
	MISSISSIPPI . . . . .	78	20	2 370	11 588	2 010	4 319	8 843	25 124	1 252	1 946	14 562
	WEST SOUTH CENTRAL . . . . .	915	278	30 793	160 458	23 216	48 925	107 404	266 368	10 294	27 365	207 430
	ARKANSAS . . . . .	69	16	1 391	5 971	1 067	2 192	4 188	11 274	769	875	6 384
	LOUISIANA . . . . .	143	36	4 019	22 410	3 024	6 416	15 487	43 122	1 357	3 705	26 868
	OKLAHOMA . . . . .	133	47	6 011	33 850	4 496	9 511	21 698	63 032	1 619	5 699	52 447
	TEXAS . . . . .	570	179	19 372	98 227	14 629	30 806	66 031	148 940	6 549	17 086	121 731
	WEST . . . . .	1 751	498	43 363	286 525	32 256	63 679	193 291	473 132	18 254	45 774	430 809
	MOUNTAIN . . . . .	300	87	7 687	45 418	5 801	11 745	32 329	72 987	2 110	7 924	62 903
	MONTANA . . . . .	20	5	246	1 388	171	330	911	2 813	86	285	2 317
	IDAHO . . . . .	23	5	391	2 215	297	604	1 554	4 781	113	(D)	(D)
	COLORADO . . . . .	98	25	2 247	14 317	1 656	3 355	9 585	18 284	515	2 511	21 677
	NEW MEXICO . . . . .	20	5	309	1 517	255	527	1 109	2 796	115	(D)	(D)
	ARIZONA . . . . .	64	15	2 022	11 170	1 503	2 967	7 868	19 208	547	1 464	11 068
	UTAH . . . . .	58	26	2 187	13 238	1 705	3 543	10 164	23 580	549	2 433	18 906
	NEVADA . . . . .	11	6	209	1 282	158	310	941	1 141	98	(D)	(D)
	PACIFIC . . . . .	1 451	411	35 676	241 107	26 455	51 934	160 962	400 145	16 144	37 850	367 906
	WASHINGTON . . . . .	171	42	3 734	25 972	2 920	5 599	18 932	42 430	1 293	4 005	37 222
	OREGON . . . . .	112	30	2 827	18 748	2 165	4 158	12 673	34 052	1 159	3 006	27 358
	CALIFORNIA . . . . .	1 149	334	28 810	194 312	21 190	41 797	128 238	319 731	13 546	30 839	303 326
345	SCREW MACHINE PRODUCTS, BOLTS, ETC	2 447	839	94 527	584 198	74 768	156 772	417 468	1 054 237	50 107	85 106	754 706
	NORTHEAST . . . . .	870	277	32 650	191 191	25 389	52 279	134 606	340 230	14 591	31 867	261 551
	NEW ENGLAND . . . . .	380	123	14 500	80 330	11 324	23 680	56 079	140 062	6 491	14 764	109 911
	MASSACHUSETTS . . . . .	110	39	6 459	35 922	4 968	10 469	25 144	58 620	2 306	6 465	47 431
	RHODE ISLAND . . . . .	54	14	1 410	7 103	1 148	2 353	5 169	11 630	564	1 360	9 368
	CONNECTICUT . . . . .	204	67	6 301	35 554	4 957	10 323	24 539	66 253	3 326	6 633	50 609
	MIDDLE ATLANTIC . . . . .	490	154	18 150	110 861	14 065	28 599	78 527	200 168	8 100	17 103	151 640
	NEW YORK . . . . .	211	64	6 101	35 406	4 791	9 661	24 222	64 423	2 615	5 241	45 977
	NEW JERSEY . . . . .	146	47	4 967	32 448	3 742	7 778	22 509	63 353	3 566	4 202	38 097
	PENNSYLVANIA . . . . .	133	43	7 082	43 007	5 532	11 160	31 796	72 392	1 919	7 660	67 566
	NORTH CENTRAL . . . . .	1 198	453	49 917	320 205	39 939	84 735	231 821	572 884	28 944	44 170	392 668
	EAST NORTH CENTRAL . . . . .	1 118	425	47 689	307 257	38 157	81 118	222 562	551 147	26 834	41 924	375 717
	OHIO . . . . .	273	114	14 614	92 038	11 685	24 194	66 212	157 534	6 877	13 818	122 435
	INDIANA . . . . .	83	31	2 883	16 480	2 377	4 893	12 413	31 605	1 311	2 728	24 174
	ILLINOIS . . . . .	342	136	18 349	119 660	14 425	31 252	86 211	213 398	10 714	16 052	145 000
	MICHIGAN . . . . .	352	127	10 142	68 697	8 329	17 912	50 478	130 408	6 962	7 978	72 104
	WISCONSIN . . . . .	68	17	1 701	10 382	1 341	2 867	7 248	18 202	970	1 348	12 004
	WEST NORTH CENTRAL . . . . .	80	28	2 228	12 948	1 782	3 617	9 259	21 737	2 110	2 246	16 951
	IOWA . . . . .	8	4	155	720	126	281	514	1 296	54	139	913
	MISSOURI . . . . .	36	11	1 043	6 182	787	1 628	4 135	10 687	586	1 204	8 944
	SOUTH . . . . .	94	35	4 180	21 176	3 513	7 371	15 530	46 531	2 934	2 821	27 208
	SOUTH ATLANTIC . . . . .	40	11	1 918	9 298	1 603	3 720	6 720	26 251	1 494	1 378	12 525
	MARYLAND . . . . .	9	3	343	1 788	275	552	1 271	3 130	197	(D)	(D)
	FLORIDA . . . . .	18	3	207	960	165	376	723	2 058	357	109	775
	EAST SOUTH CENTRAL . . . . .	19	10	1 331	7 410	1 112	2 205	5 520	12 709	1 064	922	9 669
	ALABAMA . . . . .	8	5	879	5 402	736	1 464	4 063	9 296	469	785	8 461
	WEST SOUTH CENTRAL . . . . .	35	14	931	4 468	798	1 446	3 290	7 571	376	521	5 014
	TEXAS . . . . .	23	10	626	3 034	544	878	2 192	4 457	279	406	3 930
	WEST . . . . .	286	75	7 833	51 928	5 973	12 485	35 778	96 135	3 628	6 248	73 279
	MOUNTAIN . . . . .	10	3	152	699	126	244	564	1 330	76	79	832
	COLORADO . . . . .	4	3	112	532	95	192	432	1 040	59	63	625
	PACIFIC . . . . .	276	72	7 681	51 229	5 847	12 241	35 214	94 805	3 552	6 169	72 447
	CALIFORNIA . . . . .	262	68	7 480	49 950	5 699	11 946	34 392	92 589	3 496	5 880	69 839
346	METAL STAMPINGS, TOTAL <sup>1</sup> . . . . .	2 574	1 116	132 179	772 557	108 336	222 005	567 309	1 368 993	64 248	125 300	1 045 220

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
		Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
347	METAL SERVICES, NEC, TOTAL . . . . .	4 281	953	65 631	330 614	54 835	109 844	248 728	554 748	28 688	52 151	362 163
	NORTHEAST . . . . .	1 513	298	21 085	101 313	17 595	35 317	75 471	167 860	7 442	18 878	122 638
	NEW ENGLAND . . . . .	484	101	6 928	32 503	5 880	11 576	24 487	51 503	2 321	5 801	35 983
	MASSACHUSETTS . . . . .	198	51	2 883	13 929	2 408	4 916	10 388	21 637	1 097	2 432	15 372
	RHODE ISLAND . . . . .	133	18	1 584	5 645	1 393	2 405	4 351	8 788	366	1 408	6 890
	MIDDLE ATLANTIC . . . . .	1 029	197	14 157	68 810	11 715	23 741	50 984	116 357	5 121	13 077	86 655
	NEW YORK . . . . .	606	109	7 534	35 041	6 371	12 868	26 223	57 457	2 182	7 728	49 501
	NEW JERSEY . . . . .	241	48	3 277	16 940	2 652	5 418	12 541	27 177	1 519	2 848	18 900
	PENNSYLVANIA . . . . .	182	40	3 346	16 829	2 692	5 455	12 220	31 723	1 420	2 501	18 254
	NORTH CENTRAL . . . . .	1 520	416	28 584	147 912	23 956	47 805	110 987	252 480	12 427	21 358	152 824
	EAST NORTH CENTRAL . . . . .	1 340	383	25 882	134 322	21 728	43 515	100 986	228 758	11 041	(D)	(D)
	ILLINOIS . . . . .	409	123	8 510	45 918	7 058	13 839	33 606	77 697	3 068	7 769	57 266
	MICHIGAN . . . . .	421	127	7 755	38 256	6 589	13 303	29 190	64 708	3 066	(D)	(D)
	WEST NORTH CENTRAL . . . . .	180	33	2 702	13 590	2 228	4 290	10 001	23 722	1 386	(D)	(D)
	MINNESOTA . . . . .	47	8	843	4 592	699	1 308	3 169	8 163	578	673	5 380
	IOWA . . . . .	20	3	190	775	158	316	621	1 521	43	177	1 153
	KANSAS . . . . .	15	3	155	759	134	272	573	1 282	93	105	870
	SOUTH . . . . .	422	94	6 177	27 655	5 249	10 568	21 376	47 820	4 203	3 854	25 421
	SOUTH ATLANTIC . . . . .	163	34	2 828	12 671	2 390	4 836	9 409	20 965	2 263	1 325	9 180
	MARYLAND . . . . .	34	6	628	3 604	478	968	2 268	5 394	373	466	4 023
	DISTRICT OF COLUMBIA . . . . .	5	-	59	272	50	97	227	440	17	(D)	(D)
	VIRGINIA . . . . .	20	2	193	893	161	305	681	1 364	90	(D)	(D)
	WEST VIRGINIA . . . . .	4	-	53	266	41	83	168	351	6	(D)	(D)
	SOUTH CAROLINA . . . . .	8	3	165	601	147	253	444	919	25	100	539
	GEORGIA . . . . .	16	9	813	3 373	748	1 572	2 795	5 546	1 265	235	1 427
	FLORIDA . . . . .	53	9	555	2 241	461	946	1 766	4 271	211	267	1 688
	EAST SOUTH CENTRAL . . . . .	84	23	1 106	4 319	953	1 822	3 553	8 198	341	557	3 455
	KENTUCKY . . . . .	22	8	355	1 487	303	568	1 249	2 823	99	(D)	(D)
	TENNESSEE . . . . .	34	11	455	1 554	392	733	1 239	3 007	136	281	1 601
	ALABAMA . . . . .	24	4	261	1 144	228	460	967	2 147	87	173	1 348
	WEST SOUTH CENTRAL . . . . .	175	37	2 243	10 665	1 906	3 910	8 414	18 657	1 599	1 972	12 686
	ARKANSAS . . . . .	6	2	112	453	97	197	383	1 040	186	(D)	(D)
	LOUISIANA . . . . .	15	3	205	925	179	365	727	2 162	375	(D)	(D)
	OKLAHOMA . . . . .	27	6	390	1 756	343	656	1 360	2 700	200	218	1 845
	TEXAS . . . . .	127	26	1 536	7 531	1 287	2 692	5 944	12 755	838	1 617	9 913
	WEST . . . . .	826	145	9 785	53 734	8 035	16 154	40 894	86 588	4 616	8 061	61 280
	MOUNTAIN . . . . .	66	12	651	3 389	543	1 038	2 660	5 276	670	344	2 356
	COLORADO . . . . .	26	5	245	1 255	207	408	967	2 019	366	140	1 110
	ARIZONA . . . . .	20	5	269	1 443	220	395	1 117	2 065	243	164	930
	PACIFIC . . . . .	760	133	9 134	50 345	7 492	15 116	38 234	81 312	3 946	7 717	58 924
	WASHINGTON . . . . .	33	2	273	1 828	216	425	1 322	3 052	102	186	1 574
	OREGON . . . . .	31	4	225	1 137	185	347	875	1 643	81	263	1 773
	CALIFORNIA . . . . .	691	127	8 611	47 248	7 071	14 310	35 943	76 484	3 758	7 268	55 577
348	FABRICATED WIRE PRODUCTS, NEC, TOTAL . . . . .	1 567	557	55 514	297 626	45 070	92 096	213 329	539 137	24 795	55 476	439 940
349	FABRICATED METAL PRODUCTS, NEC, TOTAL . . . . .	2 636	1 082	150 822	911 974	112 870	229 252	609 085	1 725 817	78 742	139 344	1 321 534
	NORTHEAST . . . . .	940	383	50 715	296 461	37 434	75 797	195 178	543 627	24 409	47 616	429 567
	NEW ENGLAND . . . . .	217	84	12 973	74 483	9 254	18 940	46 879	128 865	6 035	14 255	112 678
	MASSACHUSETTS . . . . .	114	41	6 570	39 558	4 409	9 129	23 510	65 098	2 569	6 687	55 983
	RHODE ISLAND . . . . .	24	11	1 790	9 998	1 298	2 760	6 533	19 907	976	1 714	14 817
	CONNECTICUT . . . . .	65	29	4 198	22 988	3 206	6 366	15 427	40 752	2 388	5 695	40 867
	MIDDLE ATLANTIC . . . . .	723	299	37 742	221 978	28 180	56 857	148 299	414 762	18 374	33 361	316 889
	NEW YORK . . . . .	326	97	9 584	51 790	7 595	15 581	37 636	94 658	5 927	8 183	70 846
	NEW JERSEY . . . . .	170	80	10 340	64 137	7 464	15 337	40 114	118 087	5 676	8 784	83 697
	PENNSYLVANIA . . . . .	227	122	17 818	106 051	13 121	25 939	70 549	202 017	6 771	16 394	162 346
	NORTH CENTRAL . . . . .	856	390	65 201	407 849	48 934	99 149	275 259	783 049	33 288	63 904	613 338
	EAST NORTH CENTRAL . . . . .	712	338	57 231	361 524	43 147	87 104	244 124	679 053	29 705	58 006	546 309
	OHIO . . . . .	190	102	19 128	120 524	14 532	29 488	83 580	239 347	9 108	19 101	193 625
	INDIANA . . . . .	65	40	6 604	40 320	4 996	9 906	26 866	77 968	2 607	6 175	60 251
	ILLINOIS . . . . .	250	106	19 240	123 201	14 314	28 651	80 958	231 135	12 629	23 164	217 671
	MICHIGAN . . . . .	159	72	9 971	63 671	7 766	15 891	44 391	109 414	3 850	8 048	62 315
	WISCONSIN . . . . .	48	18	2 288	13 808	1 539	3 168	8 329	21 189	1 511	1 518	12 447

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
		(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(number)	(\$1,000)
349	FABRICATED METAL PRODUCTS, NEC-CONT.											
	WEST NORTH CENTRAL. . . . .	144	52	7 970	46 325	5 787	12 045	31 135	103 996	3 583	5 898	67 029
	MINNESOTA. . . . .	38	14	1 710	9 616	1 367	2 761	7 092	18 900	889	1 159	11 288
	IOWA . . . . .	24	10	2 402	14 288	1 648	3 594	9 228	34 609	1 212	1 716	22 332
	MISSOURI . . . . .	53	21	3 110	18 342	2 209	4 530	11 953	39 634	1 148	2 236	23 003
	SOUTH . . . . .	416	176	22 258	124 668	17 469	35 159	87 572	253 235	11 600	18 314	183 750
	SOUTH ATLANTIC. . . . .	155	55	5 630	29 463	4 417	9 200	20 340	65 634	3 105	5 213	47 072
	MARYLAND . . . . .	23	12	879	4 661	719	1 559	3 361	12 972	493	745	11 193
	VIRGINIA . . . . .	16	6	794	4 363	631	1 322	3 036	9 282	539	(D)	(D)
	WEST VIRGINIA. . . . .	13	9	1 508	8 042	1 260	2 527	6 166	21 810	678	1 268	12 879
	NORTH CAROLINA . . . . .	16	7	689	3 342	516	1 080	1 938	5 816	766	464	2 371
	GEORGIA. . . . .	20	6	684	3 478	527	1 149	2 480	6 228	322	408	3 546
	FLORIDA. . . . .	54	10	630	2 967	489	965	1 936	5 697	210	1 214	8 022
	EAST SOUTH CENTRAL. . . . .	62	35	7 883	44 135	6 489	12 306	32 804	87 080	5 171	6 224	62 695
	KENTUCKY . . . . .	24	16	3 264	19 745	2 584	5 090	13 995	38 328	3 969	2 627	30 662
	ALABAMA. . . . .	17	11	3 110	16 315	2 661	4 699	12 055	32 355	925	2 693	23 899
	WEST SOUTH CENTRAL. . . . .	199	86	8 745	51 070	6 563	13 653	34 428	100 521	3 324	6 877	73 983
	ARKANSAS . . . . .	16	7	884	3 698	804	1 608	3 163	8 008	301	(D)	(D)
	LOUISIANA. . . . .	16	9	1 172	6 341	853	1 788	4 468	13 483	432	629	7 175
	OKLAHOMA . . . . .	33	13	771	4 880	575	1 224	3 134	9 315	359	(D)	(D)
	TEXAS. . . . .	134	57	5 918	36 151	4 331	9 033	23 663	69 715	2 232	4 803	53 519
	WEST. . . . .	423	132	12 596	82 621	8 961	19 013	50 701	151 488	9 420	9 510	94 879
	MOUNTAIN. . . . .	40	9	952	6 066	673	1 360	3 618	13 072	650	724	7 056
	COLORADO . . . . .	18	6	758	5 146	516	1 048	2 908	11 709	571	667	6 729
	ARIZONA. . . . .	8	2	113	461	94	189	360	698	39	(D)	(D)
	PACIFIC . . . . .	383	123	11 644	76 555	8 288	17 653	47 083	138 416	8 770	8 786	87 823
	OREGON . . . . .	24	8	554	3 074	377	753	2 110	5 314	338	298	3 468
	CALIFORNIA . . . . .	334	113	10 910	72 434	7 777	16 652	44 266	131 197	8 347	8 345	83 265

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.

(X) Not applicable.

This industry group consists of a single 4-digit industry. Detailed data by State are included in the 4-digit industry tables.



TABLE 3. Detailed Statistics: 1963

Item	Fabricated metal products (SIC 34)	Metal cans (SIC 341)	Cutlery, hand tools, hardware (SIC 342)	Plumbing and heating, except electric (SIC 343)	Structural metal products (SIC 344)	Screw machine products, bolts, etc. (SIC 345)	Metal stampings (SIC 346)	Metal services, n.e.c. (SIC 347)	Fabricated wire products, n.e.c. (SIC 348)	Fabricated metal products, n.e.c. (SIC 349)
ESTABLISHMENTS, TOTAL . . . . . NUMBER . .	26 975	270	2 022	979	10 199	2 447	2 574	4 281	1 567	2 636
WITH 1 TO 19 EMPLOYEES . . . . . DO. .	17 765	64	1 212	552	6 979	1 608	1 458	3 328	1 010	1 554
WITH 20 TO 99 EMPLOYEES . . . . . DO. .	6 931	93	530	253	2 546	650	818	882	415	744
WITH 100 EMPLOYEES OR MORE . . . . . DO. .	2 279	113	280	174	674	189	298	71	142	338
PROPRIETORS AND WORKING PARTNERS . . DO. .	13 700	23	756	294	4 892	1 110	848	2 523	1 407	1 847
ALL EMPLOYEES (AVERAGE FOR THE YEAR) . . . . . DO. .	1 082 102	53 245	136 554	68 160	325 470	94 527	132 179	65 631	55 514	150 822
PAYROLL (ALL EMPLOYEES), TOTAL FOR YEAR . . . . . \$1,000. .	6 387 508	377 031	799 483	391 355	1 922 670	584 198	772 557	330 614	297 626	911 974
PRODUCTION WORKERS:										
AVERAGE FOR THE YEAR . . . . . NUMBER . .	843 795	46 110	108 001	51 379	242 426	74 768	108 336	54 835	45 070	112 870
MARCH . . . . . DO. .	819 958	44 538	107 150	49 770	224 783	75 699	108 483	53 657	44 576	111 302
MAY . . . . . DO. .	839 356	46 568	107 422	50 334	240 598	74 667	107 494	54 369	45 127	112 777
AUGUST . . . . . DO. .	857 477	48 606	105 382	52 650	255 564	73 787	106 634	55 056	44 857	114 941
NOVEMBER . . . . . DO. .	859 698	44 684	112 187	52 762	248 945	75 009	110 880	56 621	46 091	112 519
MAN-HOURS . . . . . \$1,000. .	1 721 034	97 340	221 382	101 524	490 819	156 772	222 005	109 844	92 096	229 252
JANUARY-MARCH . . . . . DO. .	413 228	21 941	54 812	24 292	112 469	39 876	54 312	26 536	22 353	56 637
APRIL-JUNE . . . . . DO. .	434 518	25 249	55 947	25 212	123 724	39 850	55 702	27 565	23 061	58 208
JULY-SEPTEMBER . . . . . DO. .	429 501	26 341	51 814	25 862	127 422	37 461	53 768	27 732	22 709	56 392
OCTOBER-DECEMBER . . . . . DO. .	443 821	23 817	58 807	26 158	127 203	39 585	58 223	28 011	23 973	58 044
WAGES . . . . . \$1,000. .	4 483 688	311 058	572 588	263 067	1 281 056	417 468	567 309	248 728	213 329	609 085
COST OF MATERIALS, ETC., TOTAL <sup>1</sup> . . DO. .	11 397 850	1 265 197	1 049 382	802 984	3 892 920	760 738	1 324 939	285 531	490 937	1 525 222
MATERIALS, PARTS, CONTAINERS, AND SUPPLIES CONSUMED . . . . . DO. .	10 003 865	1 212 470	913 753	704 373	3 353 344	617 326	1 171 137	237 719	433 668	1 360 075
COST OF REALES . . . . . DO. .	744 382	35 741	72 459	72 192	340 785	50 374	51 023	5 345	29 104	87 359
FUELS CONSUMED . . . . . DO. .	100 578	6 816	12 053	8 637	23 127	6 965	11 704	12 010	3 649	15 617
ELECTRIC ENERGY:										
PURCHASED:										
QUANTITY . . . . . MILLION KW.-HRS. .	9 301	679	1 222	543	2 315	788	1 214	901	338	1 301
COST . . . . . \$1,000. .	139 900	8 076	16 564	7 982	35 319	12 666	17 957	15 808	5 712	19 813
GENERATED LESS SOLD . . . . . MILLION KW.-HRS. .	12 504	(D)	2 510	1 143	1 797	1 709	24	8	(D)	2 318
CONTRACT WORK . . . . . \$1,000. .	409 120	2 094	34 530	9 815	140 345	73 407	73 118	14 649	18 804	42 358
VALUE OF SHIPMENTS (INCLUDING REALES), TOTAL <sup>1</sup> . . . . . DO. .	23 065 207	2 075 014	2 736 858	1 588 515	7 069 942	1 807 228	2 678 996	839 711	1 030 876	3 238 067
VALUE OF REALES . . . . . DO. .	965 874	40 598	108 997	90 524	441 568	61 096	66 129	10 971	38 362	107 629
VALUE ADDED BY MANUFACTURE, ADJUSTED . . . . . DO. .	11 791 081	830 515	1 707 558	790 263	3 219 813	1 054 237	1 368 993	554 748	539 137	1 725 817
MANUFACTURERS' INVENTORIES:										
BEGINNING OF YEAR, TOTAL . . . . . DO. .	3 783 909	292 330	449 994	299 366	1 289 720	268 794	336 751	45 295	150 688	650 971
FINISHED PRODUCTS . . . . . DO. .	1 093 779	97 361	145 365	135 071	198 445	117 655	95 765	9 627	59 365	235 125
WORK-IN-PROCESS . . . . . DO. .	1 246 973	84 288	171 239	61 481	556 921	56 015	88 313	5 641	28 830	194 245
MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO. .	1 443 127	110 651	133 390	102 814	534 354	95 124	152 673	30 027	62 493	221 601
END OF YEAR, TOTAL . . . . . DO. .	3,954,077	321 722	481 205	306 338	1 335 876	281 002	360 833	49 554	150 692	666 853
FINISHED PRODUCTS . . . . . DO. .	1 134 996	112 560	149 517	133 176	200 801	122 314	102 149	10 094	59 541	244 844
WORK-IN-PROCESS . . . . . DO. .	1 329 977	89 787	187 169	68 108	597 356	59 103	96 865	5 742	28 352	197 498
MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO. .	1 489 101	119 375	144 519	105 054	537 719	99 585	161 819	33 718	62 799	224 513
EXPENDITURES FOR PLANT AND EQUIPMENT, TOTAL . . . . . DO. .	630 985	69 086	106 449	32 298	140 683	60 123	73 166	32 117	27 675	89 388
NEW, TOTAL . . . . . DO. .	570 077	66 507	100 636	30 220	126 134	50 107	64 248	28 688	24 795	78 742
NEW STRUCTURES AND ADDITIONS TO PLANT . . . . . DO. .	137 737	7 997	24 159	7 640	38 510	9 251	16 054	6 933	6 036	21 157
NEW MACHINERY AND EQUIPMENT . . DO. .	432 340	58 510	76 477	22 580	87 624	40 856	48 194	21 755	18 759	57 585
USED PLANT AND EQUIPMENT . . . . . DO. .	60 907	2 579	5 813	2 078	14 548	10 016	8 918	3 429	2 880	10 646
SELECTED OPERATING RATIOS:										
PAYROLL/TOTAL EMPLOYMENT . . . . .	5 903	7 081	5 855	5 742	5 907	6 180	5 845	5 037	5 343	6 047
PRODUCTION WORKERS/TOTAL EMPLOYMENT . .	.78	.87	.79	.75	.74	.79	.82	.84	.81	.75
MAN-HOURS/PRODUCTION WORKERS . . . . .	2 040	2 111	2 050	1 976	2 025	2 097	2 049	2 003	2 043	2 031
PRODUCTION WORKER WAGES/MAN-HOURS . .	2.61	3.20	2.59	2.59	2.61	2.66	2.59	2.26	2.32	2.66
COST OF MATERIALS AND PAYROLLS/TOTAL VALUE OF SHIPMENTS . . . . .	.77	.79	.68	.75	.82	.74	.78	.73	.76	.75
COST OF MATERIALS/TOTAL VALUE OF SHIPMENTS . . . . .	.49	.61	.38	.51	.55	.42	.49	.34	.48	.47
ADJUSTED VALUE ADDED/TOTAL EMPLOYMENT .	10 896	15 598	12 505	11 594	9 893	11 153	10 357	8 453	9 712	11 443
SALARIES AND WAGES/ADJUSTED VALUE ADDED	.54	.45	.47	.50	.60	.55	.56	.60	.55	.53

Standard Notes: - Represents zero.

(D) Withheld to avoid disclosing figures for individual companies.

(NA) Not available.

(X) Not applicable.

<sup>1</sup>The value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry. For a more complete explanation, see Introduction.

## METAL CANS, CUTLERY, HAND TOOLS, AND GENERAL HARDWARE

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3411—Metal Cans
- 3421—Cutlery
- 3423—Hand and Edge Tools, Except Machine Tools and Hand Saws
- 3425—Hand Saws and Saw Blades
- 3429—Hardware, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3411—METAL CANS

This industry comprises establishments primarily engaged in manufacturing metal cans from purchased tinsplate, terneplate, blackplate, or enameled sheet metal. Establishments primarily engaged in the manufacture of composite cans made partly of metal and partly of nonmetallic materials (such as fiberboard) are excluded from this industry. For a detailed list of products of industry 3411, refer to table 6A, product codes 3411001 to 3411091.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Metal Cans Industry totaled \$2,075 million. This amount included shipments of metal cans (primary products) valued at \$1,960 million, shipments of other products (secondary products) valued at \$63 million, and miscellaneous receipts (mainly sales of products bought and resold), at \$52 million.

This industry's shipments of metal cans represented 97 percent of its total product shipments. The industry specialization ratio in 1958 was 98 percent. Secondary products shipped by this industry in 1963 included steel shipping pails (\$12 million).

Shipments of metal cans by this industry represented 98 percent of all shipments of these products (\$2,002 million) by all industries. In 1958 the coverage ratio was 99 percent. Other industries shipping metal cans (primary products) included industry 3491, Metal Barrels, Drums, and Pails, \$7 million.



The production index for the primary products of the industry increased to 123 in 1963 from the 1958 level of 113. The unit value index for 1963 was 122 compared to 117 in 1958. Both indexes were computed on a basis of 1954 = 100.

Detailed figures on the shipments of metal cans are collected on a monthly basis by the Bureau of the Census on Form M34D. Table 6A shows totals for the data collected in the monthly survey and in the census of manufactures for the same period. The differences are due to minor revisions in the reports for some companies. Both the census of manufactures data for industry 3411 and the monthly survey include data for "captive" production, that is, the production of cans for use by the producing company. Most of these "captive" establishments are part of food, petroleum, and paint companies.

The monthly survey data are reported in terms of base boxes of metal consumed in the manufacture of cans. Also reported separately are the base boxes of steel (tinplate) and aluminum consumed in the manufacture of cans. For 1963 the base boxes of steel (tinplate) have been converted to short tons by use of the factor 23.5 base boxes per short ton of steel. For 1958 the conversion factors which appear in the table below were applied to individual types of cans.

The weight of aluminum consumed in producing metal cans was reported separately and totaled 43,321 short tons in 1963. Aluminum was not a significant factor in the production of metal cans in 1958.

Certain of the larger companies operating establishments classified in industry 3411 also have establishments producing other types of metal containers as well as containers made of other materials and which are classified in other industries; for example: steel shipping barrels, drums, and pails in industry 3491, Metal Barrels, Drums, and Pails; paper and paperboard boxes, drums, etc., in Major Group 26, Paper and Allied Products.

Type of can	Base boxes per short ton of steel
Fruit and vegetable (including juice).....	21.4
Evaporated and condensed milk.....	25.0
Other dairy products.....	20.4
Meat (including poultry).....	21.7
Fish and seafood.....	23.0
Coffee.....	21.3
Lard and shortening.....	21.7
Soft drink.....	22.1
Beer.....	20.6
Pet food.....	24.0
Oil, open-top (1 quart and 5 quart).....	23.3
All other food (including soup and baby food cans).....	23.0
All other nonfood.....	21.2

#### 3421—CUTLERY

This industry comprises establishments primarily engaged in manufacturing cutlery. Establishments primarily engaged in manufacturing table cutlery made entirely of metal are classified in industry 3914; those manufacturing electric razors, in industry 3634; and those manufacturing hair clippers for human use, in industry 3999, and for animal use, in industry 3522. For a detailed list of products of industry 3421, refer to table 6A, product codes 3421111 to 3421251.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Cutlery Industry totaled \$283 million. This amount included shipments of cutlery (primary products) valued at \$246 million; shipments of other products (secondary products) valued at \$30 million; and miscellaneous receipts (mainly sales of products bought and resold) at \$7 million.

This industry's shipments of cutlery represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent.

Shipments of cutlery by this industry represented 97 percent of all shipments of these products (\$254 million) by all industries. In 1958 the coverage ratio was 98 percent. Another industry shipping cutlery (primary products) was industry 3423, Hand and Edge Tools, \$4 million.

#### 3423—HAND AND EDGE TOOLS, EXCEPT MACHINE TOOLS AND HAND SAWS

This industry comprises establishments primarily engaged in manufacturing files and other hand and edge tools for metalworking, woodworking, and general maintenance. Establishments primarily engaged in manufacturing saws are classified in industry 3425; and metal cutting dies and power driven hand tools, and attachments and accessories for machine tools in Major Group 35. For a detailed list of products of industry 3423, refer to table 6A, product codes 3423111 to 3423398.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Hand and Edge Tools Industry totaled \$566 million. This amount included shipments of hand and edge tools (primary products) valued at \$445 million, shipments of other products (secondary products) valued at \$69 million, and miscellaneous receipts (mainly sale of products bought and resold) at \$51 million.

This industry's shipments of hand and edge tools represented 87 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 included hand saws, sawblades, and saw accessories (\$6 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 51 percent of the total industry shipments are represented by plants specializing in mechanics' hand service tools; and 28 percent in files, rasps, and file accessories and other hand tools.

Shipments of hand and edge tools by this industry represented 84 percent of all shipments of these products (\$536 million) by all industries. In 1958 the coverage ratio was 85 percent. Other industries shipping hand and edge tools (primary products) included industry 3429, Hardware, N.E.C., \$4 million; and industry 3421, Cutlery, \$3 million.

#### 3425—HAND SAWS AND SAW BLADES

This industry comprises establishments primarily engaged in manufacturing hand saws and saw blades for hand and power driven saws. Establishments primarily engaged in manufacturing power driven sawing machines are classified in Major Group 35. For a



detailed list of products of industry 3425, refer to table 6A, product codes 3425011 to 3425049.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Hand Saws and Saw Blades Industry totaled \$103 million. This amount included shipments of hand saws and saw blades (primary products) valued at \$72 million; shipments of other products (secondary products) valued at \$20 million; and miscellaneous receipts at \$11 million.

This industry's shipments of hand saws and saw blades represented 78 percent of its total product shipments. The industry specialization ratio in 1958 was 82 percent.

Shipments of hand saws and saw blades by this industry in 1963 represented 85 percent of all shipments of these products (\$85 million) by all industries. In 1958 the coverage ratio was 90 percent.

The production index for the primary products of the industry increased to 89 in 1963 from the 1958 level of 88. The unit value index for 1963 was 148 compared to 134 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3429—HARDWARE, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing miscellaneous metal products usually termed "hardware" and not elsewhere classified. Establishments primarily engaged in manufacturing bolts and nuts are classified in industry 3452, nails and spikes in Major Group 33, cutlery in industry 3421, hand tools in industry 3423, and pole line and transmission hardware in Major Group 36. For a detailed list of products of industry 3429, refer to table 6A, product codes 3429111 to 3429598.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

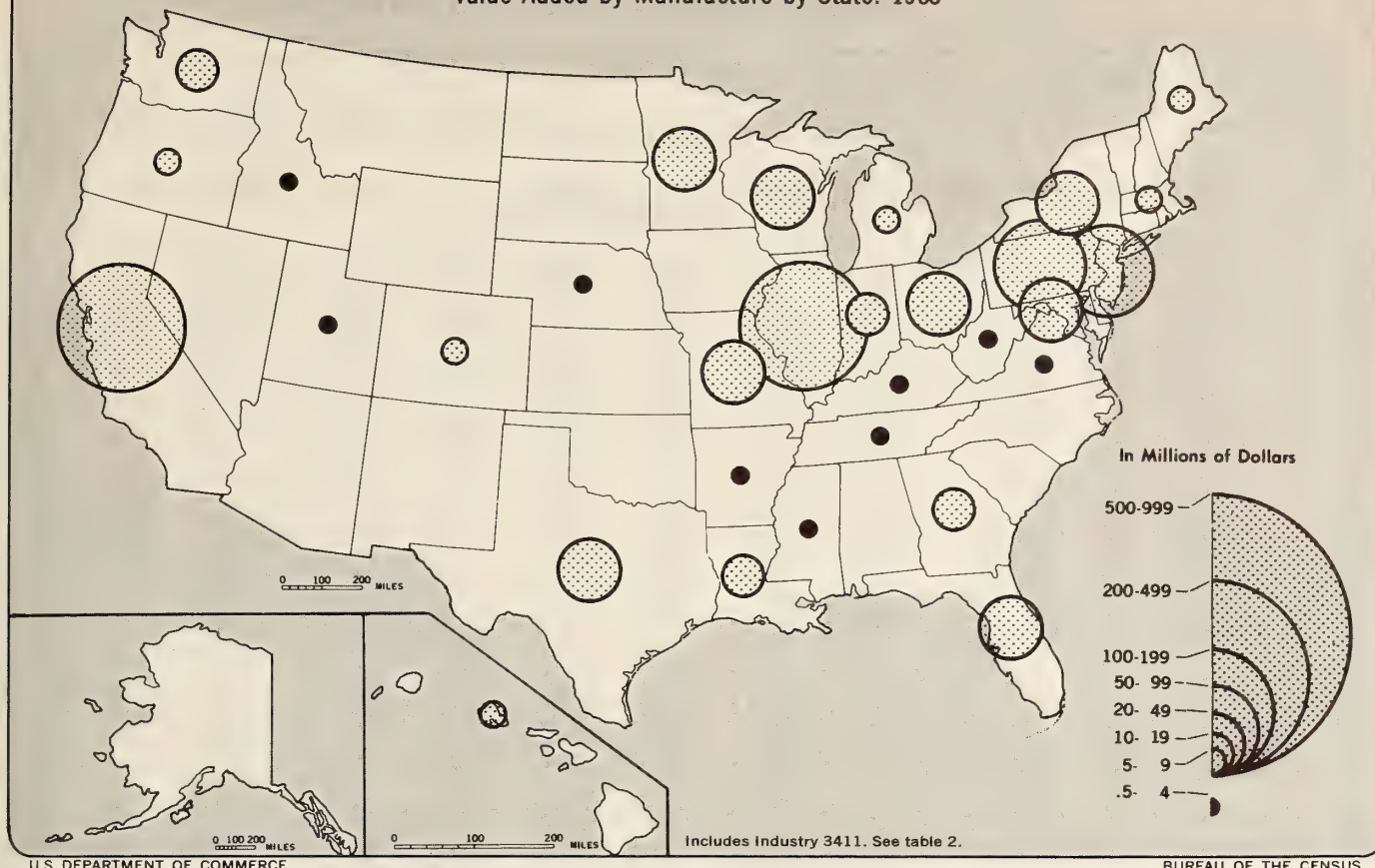
Value of shipments and other receipts of the Hardware, N.E.C., Industry totaled \$1,785 million. This amount included shipments of hardware, n.e.c., (primary products) valued at \$1,553 million; shipments of other products (secondary products) valued at \$158 million; and miscellaneous receipts (mainly sales of products bought and resold) at \$74 million.

This industry's shipments of hardware, n.e.c., represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 89 percent. Secondary products shipped by this industry in 1963 included fabricated metal products, n.e.c. (\$13 million), and job stampings, except automatic (\$8 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 48 percent of the total industry shipments are represented by plants specializing in transportation hardware, and 28 percent in builders' hardware.

Shipments of hardware, n.e.c., by this industry represented 93 percent of all shipments of these products (\$1,663 million) by all industries. In 1958 the coverage ratio was also 93 percent. Other industries shipping hardware, n.e.c., included industry 3461, Metal Stampings, \$13 million; industry 3537, Industrial Trucks and Tractors, \$6 million; and industry 3964, Needles, Pins, and Fasteners, \$6 million.

# **METAL CANS: SIC 341** Value Added by Manufacture by State: 1963



# **CUTLERY, HAND TOOLS, HARDWARE: SIC 342** Value Added by Manufacture by State: 1963

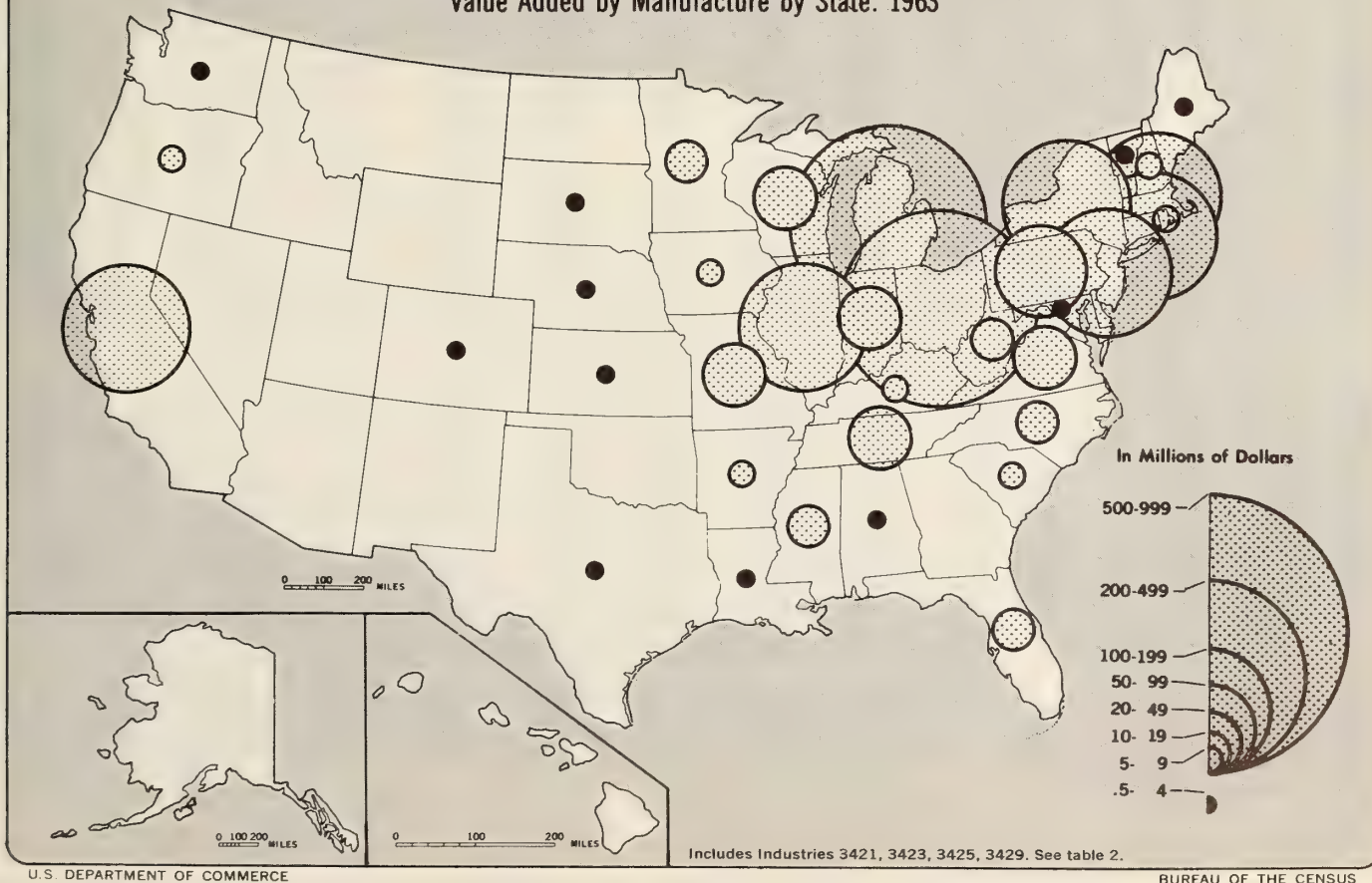




TABLE 1. General Statistics: 1963 and Earlier Years

Year	Companies (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spec- ializa- tion ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3411.—METAL CANS														
1963.....	99	270	206	53,245	377,031	46,110	97,340	311,058	830,515	1,265,197	2,075,014	66,507	97	98
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	53,069	369,321	46,018	98,442	305,401	772,377	1,339,631	2,112,439	59,974	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	53,355	347,613	46,206	96,001	286,885	758,725	1,343,545	2,095,282	47,853	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	53,554	333,624	46,369	95,789	275,092	666,151	1,279,234	1,936,373	68,425	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	53,764	332,097	46,613	97,349	273,998	668,260	1,250,791	1,933,746	50,772	(NA)	(NA)
1958 <sup>2 3 4</sup> .....	82	222	189	54,238	303,885	46,921	94,295	249,514	668,606	1,169,699	1,824,106	54,346	98	99
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	54,777	290,224	47,502	96,998	238,549	647,888	1,063,708	1,694,461	46,529	98	99
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	55,083	277,640	47,986	99,274	229,983	631,040	1,037,981	1,646,655	47,713	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	54,506	255,707	47,359	96,784	211,287	570,551	898,585	1,461,795	43,762	(NA)	(NA)
1954 <sup>4</sup> .....	109	227	175	55,234	245,134	48,008	97,574	202,112	500,408	897,795	1,381,359	50,093	98	99
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	55,719	225,224	48,541	97,877	184,439	469,816	858,590	1,328,406	30,761	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	52,203	209,627	45,281	94,604	172,900	424,877	786,483	1,211,360	26,836	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	53,392	196,046	46,406	95,331	160,966	392,087	794,010	1,186,097	38,962	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	51,611	171,962	44,855	93,814	141,900	342,210	734,214	1,076,424	38,988	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	46,744	145,797	40,218	85,348	117,753	275,311	625,614	900,925	29,651	(NA)	(NA)
1947.....	102	215	172	46,760	126,941	40,779	84,715	105,394	231,503	447,421	678,924	20,183	97	99
1939 <sup>5</sup> .....	(NA)	195	(NA)	(NA)	(NA)	29,277	(NA)	33,722	116,152	242,669	358,821	(NA)	(NA)	(NA)
1937.....	(NA)	224	(NA)	38,330	48,426	33,145	(NA)	37,194	113,686	245,110	358,796	(NA)	(NA)	(NA)
1935 <sup>6</sup> .....	(NA)	204	(NA)	31,674	37,067	27,484	(NA)	27,826	86,270	206,118	292,388	(NA)	(NA)	(NA)
1933 <sup>6</sup> .....	(NA)	194	(NA)	25,883	27,604	23,343	(NA)	22,693	70,900	137,046	207,946	(NA)	(NA)	(NA)
1931 <sup>6</sup> .....	(NA)	199	(NA)	(NA)	(NA)	25,271	(NA)	27,978	74,513	149,121	223,634	(NA)	(NA)	(NA)
1929 <sup>3 6</sup> .....	(NA)	232	(NA)	35,254	46,461	31,497	(NA)	38,173	101,914	194,987	296,901	(NA)	(NA)	(NA)
1927 <sup>6</sup> .....	(NA)	236	(NA)	33,056	42,400	29,721	(NA)	35,001	84,058	169,421	253,479	(NA)	(NA)	(NA)
1925 <sup>6</sup> .....	(NA)	221	(NA)	33,234	41,063	29,901	(NA)	34,392	84,581	175,779	260,360	(NA)	(NA)	(NA)
1923.....	(NA)	241	(NA)	35,036	41,933	30,511	(NA)	32,816	79,991	135,980	215,971	(NA)	(NA)	(NA)
1921.....	(NA)	244	(NA)	25,168	29,943	22,711	(NA)	24,595	59,557	108,748	168,305	(NA)	(NA)	(NA)
1919.....	(NA)	301	(NA)	38,781	42,703	34,386	(NA)	34,493	68,793	165,171	233,964	(NA)	(NA)	(NA)
1914.....	(NA)	294	(NA)	25,130	15,660	22,584	(NA)	12,217	28,090	53,841	81,931	(NA)	(NA)	(NA)
1909.....	(NA)	318	(NA)	(NA)	(NA)	19,754	(NA)	8,675	19,541	39,273	58,814	(NA)	(NA)	(NA)
1904 <sup>7</sup> .....	(NA)	377	(NA)	18,135	8,872	16,919	(NA)	6,842	15,645	26,248	41,893	(NA)	(NA)	(NA)
INDUSTRY 3421.—CUTLERY														
1963.....	156	161	67	11,837	64,281	9,487	19,312	43,896	213,998	72,934	283,352	12,382	89	97
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,418	65,832	9,472	19,095	40,634	194,593	63,273	257,288	11,423	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,675	60,289	8,608	17,393	37,223	174,717	57,849	232,276	6,487	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,298	55,834	8,585	17,202	35,215	157,487	54,726	209,325	3,387	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,093	56,243	8,880	17,552	35,254	150,814	51,799	201,902	3,270	(NA)	(NA)
1958.....	178	183	72	11,831	52,745	9,107	17,986	34,875	126,310	51,146	179,271	2,370	93	98
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	14,421	62,769	11,411	22,060	41,366	133,563	57,094	191,545	2,654	89	96
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	14,905	63,154	11,825	23,782	42,210	141,374	57,547	191,018	3,388	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,226	60,532	12,137	24,661	40,804	130,497	53,836	172,991	4,272	(NA)	(NA)
1954.....	179	182	79	15,102	56,062	12,362	24,578	39,609	120,951	50,642	173,565	2,393	88	96
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,251	66,612	14,061	28,367	47,067	137,131	59,744	196,875	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,068	61,705	14,323	27,919	45,239	123,743	46,253	169,996	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,667	70,391	17,853	36,048	52,715	126,555	59,451	186,006	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,305	61,442	18,341	35,424	45,980	126,852	49,729	176,581	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,616	53,546	15,866	32,380	39,795	101,066	43,112	144,178	(NA)	(NA)	(NA)
1947.....	192	195	97	20,248	54,142	17,579	37,219	42,350	104,833	37,738	142,571	5,774	93	94
1939 <sup>8</sup> .....	(NA)	124	(NA)	(NA)	(NA)	10,252	(NA)	10,768	28,381	14,400	42,781	(NA)	(NA)	(NA)
INDUSTRY 3423.—HAND AND EDGE TOOLS														
1963.....	681	716	255	31,480	176,837	24,508	48,716	125,652	364,265	207,356	565,590	10,955	87	84
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	33,715	180,042	26,062	53,853	125,953	358,111	234,550	589,247	12,141	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	32,018	164,906	24,557	49,856	114,591	334,562	205,795	538,451	9,089	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	31,106	156,003	24,165	48,854	109,501	315,934	185,436	492,595	8,330	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	31,923	156,687	25,070	50,760	111,127	325,886	193,777	510,026	10,453	(NA)	(NA)
1958.....	731	763	250	30,273	142,551	23,626	45,720	99,674	267,316	168,173	440,150	8,588	91	85
1954.....	(NA)	780	261	33,397	134,138	27,398	53,053	98,270	229,241	140,964	375,672	9,383	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	42,373	160,750	34,348	69,149	118,286	267,521	146,423	413,944	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	43,737	160,537	36,063	74,705	120,817	266,364	154,450	420,814	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	41,479	138,301	33,596	66,901	99,138	234,309	129,177	363,486	(NA)	(NA)	(NA)
1947.....	(NA)	852	(NA)	48,345	137,183	41,422	(NA)	107,005	230,890	123,443	354,333	(NA)	(NA)	(NA)
1939 <sup>8</sup> .....	(NA)	539	(NA)	3,728	4,909	22,816	(NA)	26,874	68,134	34,046	102,180	(NA)	(NA)	(NA)
INDUSTRY 3425.—HAND SAWS AND SAW BLADES														
1963.....	70	76	42	5,095	29,148	3,768	7,721	19,621	65,634	38,610	102,782	6,340	.78	.85
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,285	29,116	3,957	8,046	18,866	64,884	37,604	102,702	2,156	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,494	29,723	4,100	8,131	19,095	67,489	38,293	102,257	1,763	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,453	29,708	4,045	8,389	19,490	65,240	34,767	100,107	2,300	(NA)	(NA)

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll (\$1,000)	Total  (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3425.—HAND SAWS AND SAW BLADES—Continued														
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,657	30,946	4,321	8,640	21,403	67,539	38,479	105,205	1,636	(NA)	(NA)
1958.....	82	89	38	5,509	28,311	4,077	7,883	18,482	53,658	32,799	87,626	1,225	82	90
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,197	31,375	4,763	9,015	21,167	59,714	35,608	93,452	1,961	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,249	34,047	5,705	11,056	23,884	65,852	40,707	103,477	2,462	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,415	32,544	5,906	11,474	23,210	57,933	37,023	93,841	(S)	(NA)	(NA)
1954.....	95	99	42	6,879	29,287	5,327	10,320	19,927	51,097	33,834	88,426	1,582	71	90
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,712	32,335	6,076	12,976	23,603	52,701	35,243	87,944	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,831	27,882	5,241	11,255	19,819	49,051	30,145	79,196	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,946	33,477	6,435	14,487	25,444	59,407	40,525	99,932	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,366	27,139	5,861	12,046	20,064	50,310	25,138	75,448	(NA)	(NA)	(NA)
1947.....	81	89	43	8,441	25,600	7,380	15,543	20,872	42,975	27,455	70,430	(NA)	78	87
1939.....	(NA)	87	(NA)	4,902	7,097	4,072	(NA)	5,198	11,686	6,785	18,471	(NA)	(NA)	(NA)
1937.....	(NA)	80	(NA)	4,953	7,043	4,384	(NA)	5,576	12,438	7,415	19,853	(NA)	(NA)	(NA)
1935.....	(NA)	82	(NA)	4,156	5,239	3,425	(NA)	3,731	8,426	5,223	13,649	(NA)	(NA)	(NA)
1933.....	(NA)	71	(NA)	3,129	3,213	2,528	(NA)	2,347	6,923	3,003	9,926	(NA)	(NA)	(NA)
1931.....	(NA)	78	(NA)	(NA)	(NA)	3,005	(NA)	3,084	7,537	4,035	11,572	(NA)	(NA)	(NA)
1929.....	(NA)	81	(NA)	5,077	8,002	4,137	(NA)	5,727	15,731	6,884	22,615	(NA)	(NA)	(NA)
1927.....	(NA)	77	(NA)	5,134	7,873	4,182	(NA)	5,754	14,954	7,674	22,628	(NA)	(NA)	(NA)
1925.....	(NA)	71	(NA)	5,534	7,626	4,710	(NA)	5,873	16,485	8,224	24,709	(NA)	(NA)	(NA)
1923.....	(NA)	80	(NA)	6,373	8,959	5,420	(NA)	6,730	21,047	9,740	30,787	(NA)	(NA)	(NA)
1921.....	(NA)	79	(NA)	4,570	6,099	3,788	(NA)	4,087	11,705	6,480	18,185	(NA)	(NA)	(NA)
1919.....	(NA)	112	(NA)	6,621	8,672	5,510	(NA)	6,281	19,669	11,792	31,461	(NA)	(NA)	(NA)
1914.....	(NA)	100	(NA)	5,411	4,174	4,560	(NA)	3,019	7,803	4,714	12,517	(NA)	(NA)	(NA)
1909.....	(NA)	96	(NA)	5,673	3,823	4,832	(NA)	2,856	6,624	4,912	11,536	(NA)	(NA)	(NA)
1904.....	(NA)	83	(NA)	5,226	3,331	4,650	(NA)	2,707	5,784	4,036	9,820	(NA)	(NA)	(NA)
1899.....	(NA)	86	(NA)	3,527	2,022	3,215	(NA)	1,693	3,844	2,600	6,444	(NA)	(NA)	(NA)
INDUSTRY 3429.—HARDWARE, N.E.C.														
1963.....	1,025	1,069	446	88,142	529,217	70,238	145,633	383,419	1,063,661	730,482	1,785,134	70,959	91	93
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	89,914	500,554	69,177	142,035	355,194	966,592	693,650	1,651,811	36,601	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	87,174	465,186	65,813	133,105	320,668	838,328	636,879	1,467,415	39,234	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	92,200	497,107	71,435	145,050	344,108	886,139	668,765	1,552,388	37,785	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	89,350	471,996	69,555	145,735	329,510	872,944	647,737	1,500,780	26,858	(NA)	(NA)
1958.....	1,022	1,059	454	88,105	433,304	68,078	134,166	301,509	754,943	590,744	1,347,879	25,644	89	93
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	92,732	450,273	74,463	150,757	328,117	783,191	585,763	1,359,422	35,559	89	91
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	92,887	428,748	75,418	153,489	316,108	766,578	561,657	1,312,616	51,944	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	99,200	444,002	83,055	170,346	341,966	821,526	545,345	1,344,590	53,820	(NA)	(NA)
1954.....	852	869	361	88,296	380,464	72,708	147,920	286,371	638,962	483,219	1,126,335	47,436	86	90
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	93,437	390,837	78,780	162,619	303,897	632,739	495,595	1,128,334	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	76,780	309,364	63,188	130,246	233,198	502,883	350,620	853,503	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	82,972	309,587	69,043	141,380	235,617	531,810	383,235	915,045	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	83,500	283,741	70,310	144,601	217,638	507,878	339,168	847,046	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	75,885	242,860	62,859	126,764	181,740	395,194	296,372	691,566	(NA)	(NA)	(NA)
1947.....	(NA)	730	(NA)	77,473	216,558	65,611	133,018	169,642	350,511	235,499	586,010	(NA)	89	91
1939 <sup>8</sup> .....	(NA)	462	(NA)	(NA)	(NA)	38,035	(NA)	43,373	100,767	66,615	167,382	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing, or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>2</sup>Data for Alaska and Hawaii are excluded for 1958 and earlier years.

<sup>3</sup>Figures for 1958-1963 and 1929 and earlier years do not include dairymen's tinware.

<sup>4</sup>A number of small establishments were misclassified into industry 3411 that should have been included in other industries. This affects the total establishments and total company counts and the number of establishments in the smaller size classes for industry 3411, but has no appreciable effect on the employment, value of shipments and other statistics of this industry.

<sup>5</sup>The figures for 1939 are not entirely comparable with those for earlier years. Value added by manufacture for 1939 on a basis comparable with earlier years was \$123.6 million.

<sup>6</sup>Data for stamped tinware, other than tin cans, are excluded from the figures for 1925-1935.

<sup>7</sup>"Metal cans" was formerly a part of the discontinued industry "Tinsmithing, coppersmithing and sheet iron working." Separate figures for 1899 are, therefore, not available.

<sup>8</sup>No comparable data are available for earlier years.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3411.—METAL CANS													
Total.....	270	206	53,245	377,031	46,110	97,340	311,058	830,515	1,265,197	2,075,014	66,507	54,238	668,606
New England.....	7	6	765	5,176	644	1,360	3,932	13,013	21,619	34,370	591	748	9,390
Middle Atlantic....	62	46	13,217	90,172	11,542	24,771	75,083	190,023	264,893	452,864	14,686	13,835	150,718
New York.....	28	15	3,286	21,917	2,800	5,891	17,538	44,342	65,557	109,269	2,529	3,830	36,656
New Jersey.....	19	16	5,562	39,092	4,836	10,322	32,325	90,544	114,353	203,840	6,006	5,637	72,370
Pennsylvania.....	15	15	4,369	29,163	3,906	8,558	25,220	55,137	84,983	139,755	6,151	4,368	41,692
East North Central.	52	48	15,143	106,283	12,997	27,051	86,631	226,726	324,364	548,722	15,130	( <sup>2</sup> )	( <sup>2</sup> )
Illinois.....	21	21	10,051	70,997	8,655	18,021	58,328	139,284	177,131	314,686	10,336	11,233	128,821
Wisconsin.....	9	7	2,006	14,425	1,768	3,628	12,150	27,919	62,453	90,002	2,217	2,025	33,466
West North Central.	16	10	4,140	30,154	3,641	7,622	25,462	68,778	103,710	171,535	5,051	( <sup>2</sup> )	( <sup>2</sup> )
South Atlantic.....	34	27	6,269	46,467	5,368	11,842	38,250	84,315	147,414	227,951	8,817	6,198	63,937
Maryland.....	10	9	3,694	26,962	3,186	6,966	22,317	44,229	70,947	113,040	1,748	4,269	38,833
Florida.....	12	9	1,621	13,297	1,345	3,111	10,817	24,802	49,072	72,316	4,370	1,591	20,820
East South Central.	8	5	378	2,029	344	720	1,764	8,377	17,579	25,958	712	221	2,551
West South Central.	18	11	3,386	25,344	2,906	6,127	20,560	50,296	81,820	131,367	7,294	3,429	43,959
Texas.....	12	7	1,978	15,000	1,678	3,534	11,934	33,208	52,057	84,464	5,937	2,117	26,448
Mountain.....	9	5	415	2,854	347	760	2,220	11,508	19,700	31,079	544	294	4,948
Colorado.....	3	3	243	1,781	208	478	1,419	7,287	12,477	19,561	274	( <sup>2</sup> )	( <sup>2</sup> )
Pacific.....	64	48	9,532	68,552	8,321	17,087	57,156	177,470	284,098	451,168	13,672	<sup>3</sup> 9,601	<sup>3</sup> 128,835
Washington.....	9	7	815	5,834	695	1,358	4,734	18,485	32,847	47,916	432	( <sup>2</sup> )	( <sup>2</sup> )
California.....	44	33	7,905	57,633	6,931	14,316	48,495	143,400	209,555	347,284	11,920	8,129	109,986
INDUSTRY 3421.—CUTLERY													
Total.....	161	67	11,837	64,281	9,487	19,312	43,896	213,998	72,934	283,352	12,382	11,831	126,310
New England.....	30	20	5,089	29,176	4,020	8,192	19,817	148,520	35,838	183,690	10,168	4,884	73,213
New Hampshire....	6	3	162	766	151	312	612	1,199	717	1,969	23	( <sup>2</sup> )	( <sup>2</sup> )
Middle Atlantic....	61	32	4,041	20,818	3,341	6,743	15,033	34,052	19,015	52,432	626	4,842	33,652
New York.....	28	18	2,137	10,838	1,753	3,343	7,809	16,717	11,608	27,859	(D)	2,724	17,860
North Central.....	46	10	1,298	5,909	1,088	2,093	4,357	14,219	9,438	21,948	721	729	5,685
Ohio.....	16	5	879	3,985	730	1,384	2,889	10,323	6,898	15,417	633	394	3,168
South and West....	24	5	1,409	8,378	1,038	2,284	4,689	17,207	8,643	25,282	867	1,376	13,760
INDUSTRY 3423.—HAND AND EDGE TOOLS													
Total.....	716	255	31,480	176,837	24,508	48,716	125,652	364,265	207,356	565,590	10,955	30,273	267,316
New England.....	119	44	5,628	31,181	4,326	8,841	21,843	54,457	33,500	85,190	2,487	6,265	48,572
Massachusetts....	57	20	2,968	16,283	2,265	4,500	11,031	28,003	18,812	44,644	839	2,926	22,039
Rhode Island.....	15	2	122	546	96	202	427	975	430	1,411	31	( <sup>2</sup> )	( <sup>2</sup> )
Connecticut.....	28	13	2,103	12,417	1,587	3,367	8,836	22,040	13,044	34,468	1,249	2,024	16,491
Middle Atlantic....	168	77	8,502	44,869	6,783	13,308	33,133	94,867	56,242	151,257	3,130	7,375	63,432
New York.....	71	29	4,120	22,524	3,181	6,229	16,127	47,415	29,931	77,833	1,489	3,546	30,418
New Jersey.....	40	19	1,646	7,850	1,312	2,647	5,855	18,683	10,573	29,179	475	1,540	12,714
Pennsylvania.....	57	29	2,736	14,495	2,290	4,432	11,151	28,769	15,738	44,245	1,166	2,289	20,300
East North Central.	223	77	10,442	61,627	8,203	16,147	44,414	138,808	76,916	214,704	3,455	10,045	98,601
Ohio.....	76	28	4,435	27,337	3,467	6,867	19,546	56,246	30,531	86,784	1,291	4,410	40,745
Illinois.....	66	24	3,081	17,964	2,393	4,705	12,710	41,860	21,066	62,395	959	3,369	33,219
Michigan.....	42	13	837	5,126	578	1,153	3,141	11,436	5,515	16,658	349	658	5,190
West South Central.	57	26	2,493	14,041	2,050	4,159	10,483	25,164	13,292	38,141	494	2,985	24,170
Minnesota.....	13	7	880	4,858	677	1,398	3,415	8,105	4,639	12,682	166	853	6,533
Iowa.....	9	2	152	864	131	274	632	1,842	1,232	3,076	(D)	259	3,603
South.....	47	13	2,575	13,756	1,907	3,831	9,175	29,274	15,353	42,643	823	1,738	15,248
West.....	102	18	1,840	11,363	1,239	2,430	6,604	21,695	12,053	33,655	566	1,865	17,293
California.....	82	12	1,425	8,942	936	1,844	5,059	16,950	9,221	25,972	395	1,474	13,768

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
INDUSTRY 3425.—HAND SAWS AND SAW BLADES													
Total.....	76	42	5,095	29,148	3,768	7,721	19,621	65,634	38,610	102,782	6,340	5,509	53,658
New England.....	11	9	2,012	11,999	1,526	3,175	9,081	30,071	17,048	46,381	5,213	1,921	23,111
Middle Atlantic....	19	12	694	4,063	506	1,020	2,545	7,697	3,437	11,163	263	1,676	11,356
New York.....	10	6	395	2,386	294	598	1,473	4,503	2,581	7,182	(D)	480	3,340
North Central.....	22	12	945	5,440	728	1,464	3,689	12,186	6,508	18,443	573	1,541	14,653
Ohio.....	12	5	311	1,661	244	489	1,229	3,128	1,727	4,740	175	245	1,457
South and West.....	24	9	1,446	7,646	1,008	2,062	4,306	15,680	11,617	26,795	291	371	4,538
INDUSTRY 3429.—HARDWARE, N.E.C.													
Total.....	1,069	446	88,142	529,217	70,238	145,633	383,419	1,063,661	730,482	1,785,134	70,959	88,105	754,943
New England.....	106	48	13,159	69,504	9,891	19,407	47,706	119,167	78,206	196,211	8,327	16,722	113,863
New Hampshire....	4	3	390	1,980	331	711	1,366	2,874	1,569	4,360	45	( <sup>2</sup> )	( <sup>2</sup> )
Massachusetts.....	38	15	2,780	12,753	2,038	4,226	9,645	18,956	13,084	31,419	640	3,596	23,087
Connecticut.....	55	27	9,496	52,535	7,168	13,759	34,841	94,911	59,593	153,947	7,528	12,225	85,898
Middle Atlantic....	230	93	13,958	85,771	11,168	23,488	62,076	172,098	117,382	287,349	13,671	14,089	116,540
New York.....	135	49	5,874	33,712	4,515	9,357	22,435	60,872	53,655	114,016	7,106	5,141	42,809
New Jersey.....	39	16	5,317	38,369	4,424	9,663	29,942	87,944	46,891	133,404	(D)	5,271	49,540
Pennsylvania.....	56	28	2,767	13,690	2,229	4,468	9,699	23,282	16,836	39,939	(D)	3,677	24,191
East North Central.	346	168	42,856	279,085	35,073	74,296	211,700	584,071	400,546	981,971	37,450	41,835	384,617
Ohio.....	65	29	8,476	58,771	6,642	13,760	43,436	133,097	92,402	226,098	13,828	8,038	77,587
Indiana.....	34	18	2,753	15,820	2,183	4,513	11,132	32,979	28,820	61,555	3,257	2,706	23,407
Illinois.....	112	57	11,574	65,301	9,295	19,068	47,418	121,747	76,834	198,529	4,310	11,391	109,142
Michigan.....	107	52	17,636	125,644	14,914	32,843	99,748	266,256	186,309	450,458	14,881	17,879	157,190
Wisconsin.....	28	12	2,417	13,549	2,039	4,112	9,966	29,992	16,181	45,331	1,174	1,821	17,291
West North Central.	43	17	1,946	10,279	1,586	3,043	6,638	19,428	18,820	38,127	777	1,944	17,003
Minnesota.....	15	4	475	2,275	365	668	1,212	5,638	4,764	10,362	212	632	4,911
Iowa.....	7	4	454	2,260	366	633	1,459	4,243	6,955	11,327	255	419	5,576
Missouri.....	16	8	949	5,497	798	1,629	3,789	8,948	6,423	15,194	297	769	5,390
South Atlantic.....	54	30	2,715	11,167	2,180	4,463	7,975	24,189	16,450	40,805	857	1,970	11,295
North Carolina...	13	7	784	3,354	647	1,340	2,404	5,539	4,653	10,185	441	528	3,314
Florida.....	24	8	897	3,848	640	1,344	2,455	11,669	7,449	19,228	240	377	2,214
East South Central.	29	17	3,809	15,558	3,112	5,974	10,664	34,382	23,346	55,677	2,215	2,544	19,828
West South Central.	42	9	1,005	4,179	752	1,549	2,643	7,800	7,768	15,224	307	831	6,298
Arkansas.....	6	4	552	2,332	372	781	1,263	4,791	5,271	9,707	161	518	3,878
Texas.....	28	4	264	1,245	211	465	901	1,988	2,318	4,315	141	148	1,063
Mountain.....	11	3	141	741	102	207	474	2,204	1,272	3,510	102	131	1,560
Colorado.....	6	3	122	676	87	196	423	2,128	1,160	3,339	(D)	131	1,560
Pacific.....	208	71	8,553	52,933	6,374	13,206	33,543	100,322	66,692	166,260	7,253	8,039	83,939
Washington.....	11	3	134	792	110	214	621	1,706	1,044	2,484	169	( <sup>2</sup> )	( <sup>2</sup> )
Oregon.....	13	5	309	1,480	224	426	1,085	2,447	2,135	4,525	116	( <sup>2</sup> )	( <sup>2</sup> )
California.....	184	63	8,110	50,661	6,040	12,566	31,837	96,169	63,513	159,251	6,968	7,533	79,077

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 3411, Metal Cans: New England—Maine, 2 (250-499); Massachusetts, 4 (250-499); Connecticut, 1 (1-19); East North Central—Ohio, 14 (2,115); Indiana, 4 (812); Michigan, 4 (159); West North Central—Minnesota, 5 (1,173); Missouri, 9 (2,500-4,999); Nebraska, 1 (250-499); Kansas, 1 (1-19); South Atlantic—Virginia, 2 (100-249); West Virginia, 3 (162); North Carolina, 1 (1-19); South Carolina, 1 (1-19); Georgia, 5 (619); East South Central—Kentucky, 1 (20-99); Tennessee, 6 (100-249); Mississippi, 1 (20-99); West South Central—Arkansas, 2 (100-249); Louisiana, 2 (1,000-2,499); Oklahoma, 2 (20-99); Mountain—Idaho, 3 (20-99); Utah, 3 (135); Pacific—Oregon, 7 (250-499); Hawaii, 4 (250-499). SIC 3421, Cutlery: New England—Massachusetts, 8 (2,350); Rhode Island, 4 (500-999); Connecticut, 12 (1,000-2,499); New Jersey, 25 (1,270); Pennsylvania, 8 (634); East North Central—Indiana, 3 (1-19); Illinois, 5 (113); Michigan, 8 (100-249); Wisconsin, 3 (131); West North Central—Minnesota, 3 (1-19); Iowa, 6 (20-99); Missouri, 2 (20-99); South Atlantic—Delaware, 1 (1-19); Maryland, 1 (1-19); Virginia, 2 (500-999); Florida, 3 (20-99); West South Central—Arkansas, 2 (100-249); Texas, 1 (1-19); Mountain—Montana, 1 (1-19); Colorado, 1 (100-249); Pacific—Washington, 1 (1-19); Oregon, 2 (1-19); California, 9 (126).

Footnotes continued on next page.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

## Footnotes for Table 2—34A—Continued

SIC 3423, Hand and Edge Tools: New England—Maine, 9 (106); New Hampshire, 5 (100-249); Vermont, 5 (100-249); East North Central—Indiana, 25 (1,549); Wisconsin, 14 (540); West North Central—Missouri, 24 (961); Nebraska, 5 (100-249); Kansas, 6 (250-499); South Atlantic—Maryland, 2 (1-19); District of Columbia, 1 (1-19); Virginia, 3 (20-99); West Virginia, 4 (1,000-2,499); North Carolina, 5 (371); South Carolina, 1 (500-999); Georgia, 1 (1-19); Florida, 6 (20-99); East South Central—Kentucky, 4 (20-99); Tennessee, 3 (1-19); Alabama, 2 (1-19); Mississippi, 2 (20-99); West South Central—Arkansas, 6 (20-99); Oklahoma, 1 (1-19); Texas, 6 (100-249); Mountain—Colorado, 4 (100-249); Utah, 3 (20-99); Pacific—Washington, 5 (100-249); Oregon, 8 (141).

SIC 3425, Hand Saws and Saw Blades: New England—New Hampshire, 1 (20-99); Massachusetts, 5 (1,443); Connecticut, 5 (500-999); Middle Atlantic—New Jersey, 3 (20-99); Pennsylvania, 6 (279); East North Central—Indiana, 1 (20-99); Illinois, 5 (295); Michigan, 2 (100-249); West North Central—Minnesota, 1 (1-19); Missouri, 1 (100-249); South Atlantic—Maryland, 1 (1-19); Virginia, 1 (250-499); North Carolina, 3 (20-99); Georgia, 2 (20-99); East South Central—Kentucky, 3 (250-499); Alabama, 1 (20-99); Mississippi, 1 (500-999); West South Central—Arkansas, 1 (1-19); Texas, 1 (1-19); Pacific—Washington, 1 (1-19); Oregon, 2 (20-99); California, 7 (123).

SIC 3429, Hardware, N.E.C.: New England—Maine, 3 (265); Vermont, 1 (20-99); Rhode Island, 5 (100-249); West North Central—South Dakota, 3 (20-99); Nebraska, 1 (1-19); Kansas, 1 (1-19); South Atlantic—Maryland, 7 (20-99); District of Columbia, 2 (20-99); Virginia, 3 (624); West Virginia, 1 (20-99); South Carolina, 1 (250-499); Georgia, 3 (1-19); East South Central—Kentucky, 7 (252); Tennessee, 15 (2,460); Alabama, 3 (463); Mississippi, 4 (634); West South Central—Louisiana, 2 (100-249); Oklahoma, 6 (1-19); Mountain—Idaho, 1 (1-19); Wyoming, 1 (1-19); Arizona, 2 (1-19); Utah, 1 (1-19).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

<sup>3</sup>Excludes data for Alaska and Hawaii.

TABLE 3. Detailed Statistics: 1963

Item	Metal cans (SIC 3411)	Cutlery (SIC 3421)	Hand and edge tools (SIC 3423)	Hand saws and saw blades (SIC 3425)	Hardware, n.e.c. (SIC 3429)
Primary product specialization ratio <sup>1</sup> .....	.97	.89	.87	.78	.91
Coverage ratio <sup>2</sup> .....	.98	.97	.84	.85	.93
Establishments, total.....number..	270	161	716	76	1,069
With 1 to 19 employees.....do....	64	94	461	34	623
With 20 to 99 employees.....do....	93	40	177	30	283
With 100 employees or more.....do....	113	27	78	12	163
Proprietors and working partners.....do....	23	66	309	20	361
All employees (average for the year).....do....	53,245	11,837	31,480	5,095	88,142
Payroll (all employees), total for year.....\$1,000..	377,031	64,281	176,837	29,148	529,217
Production workers:					
Average for the year.....number..	46,110	9,487	24,508	3,768	70,238
March.....do....	44,538	9,353	24,770	3,768	69,259
May.....do....	46,568	9,305	24,363	3,767	69,987
August.....do....	48,606	9,280	24,089	3,738	68,275
November.....do....	44,684	10,016	24,870	3,798	73,503
Man-hours.....1,000..	97,340	19,312	48,716	7,721	145,633
January-March.....do....	21,941	4,818	12,398	1,949	35,647
April-June.....do....	25,249	4,732	12,524	2,005	36,686
July-September.....do....	26,341	4,486	11,113	1,796	34,419
October-December.....do....	23,817	5,256	12,681	1,989	38,881
Wages.....\$1,000..	311,058	43,896	125,652	19,621	383,419
Cost of materials, etc., total.....do....	1,265,197	72,934	207,356	38,610	730,482
Materials, parts, containers, and supplies consumed.....do....	1,212,470	64,462	162,649	32,665	653,977
Cost of resales.....do....	35,741	3,823	31,199	3,883	33,554
Fuels consumed.....do....	6,816	878	3,275	531	7,369
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	679	116	217	60	829
Cost.....\$1,000..	8,076	1,473	3,433	897	10,764
Generated less sold.....million kw.-hrs..	(D)	(D)	(D)	-	(D)
Contract work.....\$1,000..	2,094	2,278	6,800	634	24,818
Value of shipments (including resales), total.....do....	2,075,014	283,352	565,590	102,782	1,785,134
Value of resales.....do....	40,598	5,290	45,341	5,029	53,337
Value added by manufacture, adjusted.....do....	830,515	213,998	364,265	65,634	1,063,661
Manufacturers' inventories:					
Beginning of year, total.....do....	292,330	41,370	126,961	21,969	259,694
Finished products.....do....	97,361	15,864	51,615	8,899	68,987
Work-in-process.....do....	84,288	12,000	43,063	5,800	110,376
Materials, supplies, fuel, etc.....do....	110,651	13,506	32,283	7,270	80,331
End of year, total.....do....	321,722	47,220	132,160	24,361	277,464
Finished products.....do....	112,560	17,585	52,360	9,835	69,737
Work-in-process.....do....	89,787	13,859	48,349	6,326	118,635
Materials, supplies, fuel, etc.....do....	119,375	15,776	31,451	8,200	89,092
Expenditures for plant and equipment, total.....do....	69,086	13,698	12,415	6,551	73,785
New, total.....do....	66,507	12,382	10,955	6,340	70,959
New structures and additions to plant.....do....	7,997	3,085	1,958	3,696	15,420
New machinery and equipment.....do....	58,510	9,297	8,997	2,644	55,539
Used plant and equipment.....do....	2,579	1,316	1,460	211	2,826
Selected operating ratios:					
Payroll/Total employment.....	7,081	5,430	5,617	5,721	6,004
Production workers/Total employment.....	.87	.80	.78	.74	.80
Man-hours/Production workers.....	2,111	2,036	1,988	2,049	2,073
Production worker wages/Man-hours.....	3.20	2.27	2.58	2.54	2.63
Cost of materials and payrolls/Total value of shipments....	.79	.48	.68	.66	.71
Cost of materials/Total value of shipments.....	.61	.26	.37	.38	.41
Adjusted value added/Total employment.....	15,598	18,079	11,571	12,882	12,068
Salaries and wages/Adjusted value added.....	.45	.30	.49	.44	.50

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3411.—METAL CANS											
Establishments.....number..	270	22	16	26	46	47	44	39	24	6	-
All employees:											
Total.....do.....	53,245	26	116	381	1,519	3,400	6,857	31,776	(D)	9,170	-
Payroll.....\$1,000..	377,031	133	672	2,314	9,013	21,874	45,619	230,105	(D)	67,301	-
Value added, adjusted.....do....	830,515	272	3,254	8,004	31,539	72,408	137,995	470,174	(D)	106,869	-
Value of shipments.....do....	2,075,014	780	7,039	22,637	87,384	202,277	359,604	1,129,649	(D)	265,644	-
Capital expenditures, new...do....	66,507	14,324	240	1,118	2,332	4,635	12,470	31,353	(D)	10,035	-
INDUSTRY 3421.—CUTLERY											
Establishments.....number..	161	44	21	29	23	17	18	4	4	1	-
All employees:											
Total.....do.....	11,837	65	132	378	710	1,246	2,882	1,521	4,903	(D)	-
Payroll.....\$1,000..	64,281	258	712	1,769	3,399	5,327	14,283	7,274	31,259	(D)	-
Value added, adjusted.....do....	213,998	791	1,234	3,311	5,494	8,917	24,116	15,056	155,079	(D)	-
Value of shipments.....do....	283,352	1,215	1,757	5,612	9,287	14,083	36,617	23,121	191,660	(D)	-
Capital expenditures, new...do....	12,382	13	52	56	178	256	447	841	10,539	(D)	-
INDUSTRY 3423.—HAND AND EDGE TOOLS											
Establishments.....number..	716	279	102	80	123	54	49	18	10	1	-
All employees:											
Total.....do.....	31,480	514	690	1,082	3,770	3,705	7,649	5,904	8,166	(D)	-
Payroll.....\$1,000..	176,837	2,163	3,329	5,558	18,992	20,138	42,440	35,614	48,603	(D)	-
Value added, adjusted.....do....	364,265	5,142	6,480	11,330	34,598	41,719	85,758	83,338	99,900	(D)	-
Value of shipments.....do....	565,590	8,530	10,799	17,776	55,880	60,963	136,479	132,891	142,272	(D)	-
Capital expenditures, new...do....	10,955	205	160	278	1,347	1,211	3,197	1,989	2,568	(D)	-
INDUSTRY 3425.—HAND SAWS AND SAW BLADES											
Establishments.....number..	76	11	12	11	20	10	7	3	2	-	-
All employees:											
Total.....do.....	5,095	108	(D)	148	615	656	1,196	2,372	(D)	-	-
Payroll.....\$1,000..	29,148	652	(D)	665	3,420	3,488	7,879	13,044	(D)	-	-
Value added, adjusted.....do....	65,634	988	(D)	1,143	7,180	6,793	17,453	32,077	(D)	-	-
Value of shipments.....do....	102,782	1,759	(D)	1,780	10,554	9,600	27,476	51,613	(D)	-	-
Capital expenditures, new...do....	6,340	15,195	(D)	(D)	(D)	(D)	640	505	(D)	-	-
INDUSTRY 3429.—HARDWARE, N.E.C.											
Establishments.....number..	1,069	322	140	161	179	104	94	41	13	11	4
All employees:											
Total.....do.....	88,142	471	962	2,128	5,754	7,270	15,097	13,716	8,778	33,966	(D)
Payroll.....\$1,000..	529,217	2,145	4,612	11,079	29,653	37,288	79,745	75,596	51,511	237,588	(D)
Value added, adjusted.....do....	1,063,661	5,122	9,374	20,760	57,130	73,623	158,272	136,472	102,182	500,726	(D)
Value of shipments.....do....	1,785,134	10,198	18,373	39,126	107,796	136,103	285,869	244,082	150,493	793,094	(D)
Capital expenditures, new...do....	70,959	2,242	560	997	2,639	3,814	5,584	5,915	6,370	42,838	(D)

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. n.e.c. Not elsewhere classified.

<sup>1</sup>Includes capital expenditures for plants under construction but not in operation of approximately \$2-\$5 million.<sup>2</sup>Includes capital expenditures for plants under construction but not in operation of approximately \$1-\$2 million.

TABLE 5A. **Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B+C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3411	Metal cans.....1963..	2,075,014	1,960,089	62,903	52,022	97	2,002,211	1,960,089	42,122	98
	1958 <sup>1</sup> ..	1,824,106	1,747,407	34,810	41,889	98	1,762,346	1,747,407	14,939	99
3421	Cutlery.....1963..	283,352	246,217	29,660	7,475	89	254,321	246,217	8,104	97
	1958..	179,271	158,890	12,217	8,164	93	162,177	158,890	3,287	98
3423	Hand and edge tools.....1963..	565,590	444,926	69,429	51,235	87	536,090	444,926	91,164	84
	1958..	440,150	367,822	35,562	36,766	91	434,202	367,822	66,380	85
3425	Hand saws and saw blades.....1963..	102,782	72,103	20,006	10,673	78	85,000	72,103	12,897	85
	1958..	87,626	67,789	14,926	4,911	82	75,629	67,789	7,840	90
3429	Hardware, n.e.c.....1963..	1,785,134	1,552,991	158,196	73,947	91	1,663,119	1,552,991	110,128	93
	1958..	1,347,879	1,144,281	142,581	61,017	89	1,224,108	1,144,281	79,827	93

NOTE: See Introduction for an explanation of terms used.

n.e.c. Not elsewhere classified.

<sup>1</sup>Data for Alaska and Hawaii are excluded.





TABLE 5B. **Industry-Product Analysis—Shipments by Product Class and Industry:**  
**1963—Continued**

Prod. class code	Class of products and miscellaneous receipts	All industries	Hand saws and saw blades (SIC 3425)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Hardware, n.e.c. (SIC 3429)	Other industries
	HAND SAWS AND SAW BLADES INDUSTRY					HARDWARE, N.E.C., INDUSTRY—Con.			
	Total shipments and receipts of the industry.....	(X)	102,782	(X)	30798	Secondary products.....	(X)	158,196	(X)
34250	Hand saws, saw blades and saw accessories.....	85,000	72,103	12,897	34231	Consumer and commercial plastics products, n.e.c.....	(X)	(2-5)	(X)
	Secondary products.....	(X)	20,006	(X)	34320	Mechanics' hand service tools....	(X)	4,155	(X)
34232	Edge tools.....	(X)	(5-10)	(X)	34612	Plumbing fixture fittings and trim (brass goods).....	(X)	2,499	(X)
34990	Fabricated metal products, n.e.c.	(X)	(2-5)	(X)	34813	Job stampings, except automotive.	(X)	7,921	(X)
	Miscellaneous receipts.....	(X)	10,673	(X)	34990	Other wire springs.....	(X)	(20-50)	(X)
	Contract and commission work....	(X)	822	(X)	35441	Fabricated metal products, n.e.c.	(X)	12,846	(X)
	Sales of products bought and resold.....	(X)	5,029	(X)	37423	Special dies and tools, die sets, jigs and fixtures.....	(X)	(20-50)	(X)
	Other miscellaneous receipts.....	(X)	4,822	(X)		Street cars, parts and accessories for railroad and street cars; rebuilt passenger and freight train cars.....	(X)	(2-5)	(X)
	Listing of other industries with over \$2 million shipments of each primary product class:					Miscellaneous receipts.....	(X)	73,947	(X)
3425	3423 Hand and edge tools.....	(X)	(X)	5,963	34291	Contract and commission work....	(X)	7,829	(X)
	3545 Machine tool accessories...	(X)	(X)	(2-5)	34293	Sales of products bought and resold.....	(X)	53,337	(X)
		All industries	Hardware, n.e.c. (SIC 3429)	Other industries	34294	Scrap.....	(X)	8,762	(X)
						Other miscellaneous receipts.....	(X)	4,019	(X)
	HARDWARE, N.E.C., INDUSTRY				34295	Listing of other industries with over \$2 million shipments of each primary product class:			
	Total shipments and receipts of the industry.....	(X)	1,785,134	(X)		3461 Metal stampings.....	(X)	(X)	4,671
	Primary products.....	1,663,119	1,552,991	110,128		3717 Motor vehicles and parts...	(X)	(X)	3,242
34291	Transportation equipment hardware	778,514	758,127	20,387		3422 Heating equipment, except electric.....	(X)	(X)	(2-5)
34292	Furniture hardware.....	95,334	89,742	5,592		3634 Electric housewares and fans	(X)	(X)	(5-10)
34293	Vacuum and insulated bottles, jugs, and chests.....	47,973	36,411	11,562		2421 Millwork plants.....	(X)	(X)	(5-10)
34294	Builders' hardware.....	465,795	442,709	23,086		3421 Cutlery.....	(X)	(X)	2,899
34295	Other hardware.....	237,425	188,510	48,915		3442 Metal doors, sash, and trim	(X)	(X)	(2-5)
34290	Hardware, n.e.c., n.s.k.....	38,078	37,492	586		3461 Metal stampings.....	(X)	(X)	2,762
						1961 Small arms ammunition.....	(X)	(X)	3,072
						3442 Plumbing fixtures, brass goods.....	(X)	(X)	(2-5)
						3452 Bolts, nuts, rivets, and washers.....	(X)	(X)	3,079
						3461 Metal stampings.....	(X)	(X)	(2-5)
						3494 Valves and pipe fittings....	(X)	(X)	5,380
						3525 Conveyors.....	(X)	(X)	4,062
						3527 Industrial trucks and tractors.....	(X)	(X)	(2-5)
						3569 General industry machines, n.e.c.....	(X)	(X)	5,841
						3821 Mechanical measuring devices	(X)	(X)	2,238
						3964 Needles, pins, and fasteners	(X)	(X)	(2-5)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (1,000 base boxes of metal) <sup>1</sup>	Value (\$1,000)	Quantity (1,000 base boxes of metal) <sup>1</sup>	Value (\$1,000)
3411- --	METAL CANS, TOTAL.....	(X)	2,002,211	(X)	<sup>2</sup> 1,762,346
	Metal cans <sup>3</sup> :				
	Steel (tinplate):				
34110 01	As reported in the census of manufactures.....	<sup>4</sup> 109,151	1,932,868	<sup>2</sup> 103,579	<sup>2</sup> 1,754,984
	As reported on Monthly Form M34D.....	108,593	(NA)	<sup>4</sup> 103,849	(NA)
	Aluminum:				
34110 02	Reported in census of manufactures.....	2,389	55,051	(NA)	(NA)
	Reported on Monthly Form M34D.....	<sup>5</sup> 2,356	(NA)	(NA)	(NA)
	Detail data by type of can from Monthly Survey M34D:				
34110 24	Fruit and fruit juices (including cans for fruit base, still drinks sold as soft drinks.....	15,474	(NA)	33,379	(NA)
34110 25	Vegetable and vegetable juice.....	18,306	(NA)		(NA)
34110 26	Evaporated and condensed milk.....	4,161	(NA)	5,175	(NA)
34110 28	Other dairy products.....	595	(NA)	728	(NA)
34110 32	Meat, including poultry.....	3,654	(NA)	2,950	(NA)
34110 34	Fish and seafood.....	2,875	(NA)	2,843	(NA)
34110 36	Coffee.....	4,748	(NA)	4,452	(NA)
34110 38	Lard and shortening.....	2,034	(NA)	2,383	(NA)
34110 42	Soft drinks.....	4,116	(NA)	810	(NA)
34110 44	Beer.....	19,580	(NA)	16,902	(NA)
34110 46	Baby food, including formulas.....	701	(NA)	11,363	(NA)
34110 48	All other foods (including soups).....	12,182	(NA)		(NA)
34110 52	Pet foods.....	4,625	(NA)	4,155	(NA)
34110 56	Oil (open top up through 5-quart).....	3,995	(NA)	6,337	(NA)
34110 54	Paint and varnish products (including painter's supplies).....	3,689	(NA)	12,372	(NA)
34110 64	Anti-freeze.....	1,057	(NA)		(NA)
34110 66	Pressure packing (valvetype).....	2,501	(NA)		(NA)
34110 68	All other nonfoods.....	6,656	(NA)		(NA)
34110 91	Tinware end products (including ice cream cans but excluding cooking and kitchen utensils).....	(X)	9,045	(X)	3,914
34110 00	Metal cans, n.s.k.....	(X)	5,247	(X)	3,448
Product code	Product	Value of shipments including interplant transfers (\$1,000)			
		1963		1958	
3421- --	CUTLERY, TOTAL.....			254,321	162,177
34211 --	Cutlery, scissors, shears, trimmers, and snips.....			90,484	77,326
34211 11	Table cutlery (consists of knives, forks, spoons, etc. for the serving and eating of food, with handles of materials other than metal). Carving sets with handles of materials other than metal are to be included with "table cutlery" rather than "kitchen cutlery".....			6,014	5,353
34211 21	Kitchen cutlery.....			15,918	16,579
34211 31	Butchers and meatpacking cutlery.....			4,754	2,919
34211 41	Pocket knives, and other folding blade knives.....			<sup>6</sup> 14,216	<sup>7</sup> 12,436
34211 53	Scissors and shears, including household types, barber shears, pinking and tailoring shears, etc. but excluding manicure, pedicure, surgical, and the types reported below for "All other scissors and shears".....			13,826	12,304
34211 55	All other scissors and shears, including hedge and grass shears and pruners (except electric) aviation and tinnerns snips, BX and wire filament cutters, etc.....			16,379	9,041
34211 61	Manicure and pedicure scissors and implements.....			8,109	6,106
34211 98	Other cutlery.....			9,887	8,686
34211 00	Cutlery, scissors, shears, trimmers and snips, n.s.k.....			1,381	3,894
34212 --	Razor blades and razors,except electric.....			159,423	80,713
34212 11	Safety razors.....			159,423	80,713
34212 51	Razor blades.....				
34210 00	Cutlery, n.s.k.....			4,414	4,138

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3423- --	HAND AND EDGE TOOLS, TOTAL.....	.....	(X)	536,090	(X)	434,202
34231 --	Mechanics' hand service tools.....	.....	(X)	252,390	(X)	188,460
34231 11	Pliers.....	1,000 units...	17,307	23,262	14,683	17,818
34231 21	Ball peen hammers.....	...do.....	1,938	2,849	1,415	2,008
	Wrenches:					
34231 33	Socket.....	...do.....	55,154	32,586	37,808	22,146
34231 35	Flat (open-end, box-end and combination open-end and box)....	...do.....	28,601	21,321	26,175	16,931
34231 37	Adjustable.....	...do.....	9,415	18,058	8,464	17,611
34231 39	All other.....	...do.....	31,281	20,782	11,794	9,962
34231 41	Screw drivers.....	...do.....	52,822	21,005	37,356	15,947
34231 51	Automobile jacks, mechanical (exclude hydraulic and pneumatic)...	...do.....	10,420	17,886	(X)	73,261
34231 98	Other mechanics' hand service tools.....	.....	(X)	84,653	(X)	12,776
34231 00	Mechanics' hand service tools, n.s.k.....	.....	(X)	9,988	(X)	12,776
34232 --	Edge tools hand operated.....	.....	(X)	106,258	(X)	90,614
34232 11	Agricultural edged hand tools, except scissors and shears (scythes, sickles, grass hooks, machetes, hay knives, and similar tools).....	.....	(X)	3,110	(X)	2,647
34232 31	Axes, adzes, and hatchets.....	.....	(X)	6,429	(X)	7,737
34232 51	Cutting dies, for use in cutting cloth, paper, leather, etc., excluding dies for cutting metal.....	.....	(X)	20,283	(X)	14,454
34232 55	Machine knives, except metal cutting.....	.....	(X)	13,539	(X)	10,362
34232 61	Can openers (except electric).....	.....	(NA)	6,647	(NA)	11,833
34232 71	Auger bits.....	1,000 units...	4,598	4,587	4,950	4,725
34232 83	Chisels.....	...do.....	7,553	5,837	(NA)	4,634
34232 81	Planes.....	.....	(X)	43,514	(X)	2,621
34232 98	Other edge tools.....	.....	(X)	43,514	(X)	24,717
34232 00	Edge tools, n.s.k.....	.....	(X)	2,312	(X)	6,884
34233 --	Files, rasps, and file accessories and other hand tools.....	.....	(X)	156,026	(X)	142,017
34233 11	Shovels, spades, scoops, telegraph spoons, and scrapers.....	.....	(X)	22,430	(X)	18,839
34233 21	Light forged hammers, under 4 pounds, excluding ball peen hammers.....	.....	(X)	8,819	(X)	7,778
34233 31	Heavy forged tools (sledges, 4 pounds and over, picks, pick matts, and mauls).....	.....	(X)	4,309	(X)	3,464
34233 41	Steel goods (forks, hoes, rakes, weeders, etc.).....	.....	(X)	20,343	(X)	19,433
34233 61	Metalworking files and rasps, including precision files.....	1,000 units...	62,760	25,141	65,411	26,722
34233 71	Woodworking files and rasps.....	...do.....	(NA)	870	2,791	1,262
34233 81	Soldering irons (electric).....	...do.....	2,034	9,784	2,732	9,036
34233 98	Other hand tools, except edge tools.....	.....	(X)	60,645	(X)	48,092
34233 00	Files, rasps, and file accessories and other hand tools, n.s.k....	.....	(X)	3,685	(X)	7,391
34230 00	Hand and edge tools, except machine tools and hand saws, n.e.c....	.....	(X)	21,416	(X)	13,111
3425- --	HAND SAWS AND SAW BLADES, TOTAL.....	.....	(X)	85,000	(X)	75,629
	Power saw blades:					
	Woodworking:					
	Circular:					
34250 11	Solid tooth <sup>8</sup> .....	.....	(NA)	10,103	(NA)	8,639
34250 13	Inserted tooth.....	.....	(NA)	3,096	(NA)	6,059
	Band:					
34250 15	Under 2 inches.....	1,000 ft.....	13,901	3,374	13,430	2,392
34250 17	2 inches and over.....	...do.....	743	3,655	565	3,098
34250 19	All other woodworking power saw blades.....	.....	(NA)	2,669	(NA)	2,947
	Metalworking:					
34250 31	Circular.....	.....	(NA)	4,315	(NA)	3,656
34250 35	Hack (power only).....	1,000 units...	4,773	6,921	2,758	4,862
34250 36	Band (flexible back, spring temper metal cutting and high speed metal cutting).....	1,000 ft.....	119,664	22,838	112,472	15,969
34250 39	Other metalworking saw blades (saber, reciprocating, etc.)...	.....	(X)	1,427	(X)	(X)
	Hand operated saws:					
34250 43	Hacksaw blades (hand only).....	1,000 units...	59,144	12,071	58,160	11,637
34250 45	Carpenter crosscuts and rip saws.....	...do.....	703	1,519	1,518	3,916
34250 49	Other handsaws (heavy handsaws, including crosscut and buck, miter, coping, pruning, compass, etc., including handsaw frames and handsaw blades sold together or handsaw blades sold separately).....	.....	(X)	7,114	(X)	5,855
34250 00	Handsaws, saw blades and accessories, n.s.k.....	.....	(X)	5,898	(X)	6,599

See footnotes at end of table.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Value of shipments including interplant transfers (\$1,000)	
		1963	1958
3429- --	HARDWARE, N.E.C., TOTAL.....	1,663,119	1,224,108
34291 --	Transportation equipment hardware.....	778,514	472,157
34291 11	Marine hardware, including shackles, rope sockets, tackle blocks, wire rope, clips, clamps, and joiner's hardware.....	34,884	33,104
34291 31	Aircraft hardware.....	35,839	33,274
	Motor vehicle hardware, including lock units, door and window handles, window regulators, hinges, license plate brackets, instrument panel knobs, etc.: Shipments to motor vehicle manufacturers (auto, truck, bus, trailer, etc.).....	<sup>9</sup> 668,612 <sup>9</sup> 13,817	<sup>9</sup> 359,478 <sup>9</sup> 11,088
34291 51	Shipments to all other customers.....		
34291 98	Other transportation equipment hardware, including railroad car hardware.....	22,187	27,980
34291 00	Transportation equipment hardware, n.s.k.....	3,175	7,233
34292 --	Furniture hardware.....	95,334	77,409
34292 11	Furniture hardware (exclude casters), including hardware for office and household furniture.....	61,929	51,434
34292 53	Furniture casters.....	23,563	21,164
34292 55	Other floor protective devices, including slides, glides, furniture rests, and desk leg cups.....	5,736	
34292 00	Furniture hardware, n.s.k.....	4,106	4,811
34293 --	Vacuum and insulated bottles, jugs, and chests.....	47,973	41,147
34293 15	Vacuum (air-evacuated) bottles, pitchers, servers, etc.....	33,167	22,928
34293 17	Insulated (portable and other than air-evacuated) picnic jugs, picnic chests, coolers, etc. (except those made principally of plastics).....	14,806	18,219
34294 --	Builders' hardware.....	465,795	387,083
34294 11	Padlocks.....	22,732	19,771
34294 23	Door locks, locksets, and lock trim.....	107,182	
34294 25	Night latches and deadlocks.....	9,326	97,799
34294 27	Emergency exit devices (antipanic) devices.....	10,057	
34294 31	Miscellaneous sash, screen, and shelf hardware (window hardware, transom hardware, door pulls, and bolts, screendoor hardware, etc.).....	50,369	52,959
34294 41	Door closers and checking devices, including floor types.....	41,081	30,239
34294 51	Hinges and butts, excluding cabinet hinges, including spring hinges.....	40,882	38,583
34294 61	Cabinet hardware, including cabinet hinges and cabinet locks.....	57,082	34,561
34294 71	Hangers, tracks, and related items, including overhead door hardware (except sliding and folding door hardware, residential and commercial).....	37,485	
34294 73	Sliding and folding door hardware (residential and commercial).....	12,857	52,864
34294 98	Other builder's hardware.....	68,116	47,572
34294 00	Builder's hardware, n.s.k.....	8,626	12,735
34295 --	Other hardware.....	237,425	215,220
34295 12	Casket and casket shell hardware.....	13,617	10,845
34295 22	Casters and wheels, for dollies and industrial hand trucks.....	41,783	33,181
34295 32	Trunk and luggage hardware, including locks.....	15,015	11,181
34295 52	Fireplace fixtures and equipment, including dampers and irons, and fire screens.....	16,377	12,059
34295 62	Hose fittings and couplings.....	63,120	54,396
34295 65	Refrigerator and stove hardware.....	21,595	27,298
34295 98	Other hardware, including saddlery and harness hardware, but excluding drapery hardware.....	61,504	53,572
34295 00	Other hardware, n.s.k.....	4,414	12,688
34290 00	Hardware, n.e.c., n.s.k.....	38,078	31,092

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>A base box is an area of 31,360 square inches, equivalent to 112 sheets, 14" x 20" in size.

<sup>2</sup>Data for Alaska and Hawaii are excluded.

<sup>3</sup>A metal can is defined as a single-walled container constructed wholly of tinplate, terneplate, blackplate, waste plate, aluminum sheet or impact extrusions (slugs) designed for packing products. This definition excludes steel pails, defined as single-walled shipping containers having capacities of 1-12 gallons inclusive that are cylindrically constructed of steel sheet of 29 gauge and heavier.

<sup>4</sup>The 1963 and 1958 figures represent, respectively, 4,621 and 4,762 thousand short tons of steel. The 1963 estimate is derived by use of the factor 23.5 base boxes per short ton of steel. The 1958 figure is derived by use of separate conversion factors for each type of can. These factors vary from 20.4 to 25.0 base boxes per short ton of steel depending on the type of can.

<sup>5</sup>Represents 43,321 short tons of aluminum.

<sup>6</sup>For 1963, represents shipments of 20,140 thousand units.

<sup>7</sup>For 1958, represents shipments of 15,872 thousand units valued at \$8,978 thousand; the remaining \$3,458 thousand had no quantity reported.

<sup>8</sup>Includes all types and sizes of solid-tooth circular saw blades for industrial and home workshop type circular saws as well as saw blades for portable power saws and for sawing attachments for portable hand tools.

<sup>9</sup>Includes only the value of motor vehicle hardware reported as such. It is likely that an indeterminate amount of motor vehicle hardware was reported as motor vehicle parts and classified accordingly in the Motor Vehicle and Parts Industry.

**TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
341--	Metal cans.....1963...	123	122
	.....1958...	113	117
3411-	Metal cans.....1963...	123	122
	.....1958...	113	117
342--	Cutlery, hand tools, hardware cutlery.....1963...	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958...	( <sup>1</sup> )	( <sup>1</sup> )
3421-	Cutlery.....1963...	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958...	( <sup>1</sup> )	( <sup>1</sup> )
3423-	Hand and edge tools.....1963...	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958...	( <sup>1</sup> )	( <sup>1</sup> )
34231	Mechanics' hand service tools.....1963...	139	113
	.....1958...	96	117
3425-	Hand saws and saw blades.....1963...	89	148
	.....1958...	88	134
3429-	Hardware, n.e.c.....1963...	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958...	( <sup>1</sup> )	( <sup>1</sup> )

n.e.c. Not elsewhere classified.

<sup>1</sup>Not shown because comparable quantity data were not obtained for a significant portion of these products.

**TABLE 6C. Product Classes—Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
34110	Metal cans.....	2,002,211	2,056,211	2,012,649	1,868,601	1,886,862	<sup>2</sup> 1,762,346	<sup>2</sup> 1,331,967	<sup>2</sup> 644,422
3421-	Cutlery.....	254,321	231,478	209,816	190,530	186,339	162,177	153,315	141,085
34211	Cutlery, scissors, shears, trimmers and snips.....	90,484	83,013	74,884	72,823	81,705	77,326	85,485	81,104
34212	Razor blades and razors, except electric.....	159,423	145,481	131,956	114,762	100,668	80,713	67,830	59,981
34210	Cutlery, n.s.k.....	4,414	(2,984)	(2,976)	(2,945)	(3,966)	4,138	-	-
3423-	Hand and edge tools, except machine tools, and hand saws.....	536,090	545,331	513,983	484,147	501,068	434,202	370,461	348,701
34231	Mechanics' hand service tools.....	252,390	237,993	221,387	210,180	213,283	188,460	168,800	130,450
34232	Edge tools.....	106,258	122,246	117,876	112,195	110,923	90,614	73,686	63,749
34233	Files, rasps, and file accessories and other hand tools.....	156,026	176,255	165,724	153,599	163,110	142,017	120,060	142,153
34230	Hand and edge tools, n.s.k.....	21,416	(8,837)	(8,996)	(8,173)	(13,752)	13,111	7,915	12,349
34250	Hand saws, saw blades, and saw accessories...	85,000	86,644	86,622	84,162	89,593	75,629	64,540	62,089
3429-	Hardware, n.e.c.....	1,663,119	1,511,586	1,328,952	1,391,515	1,369,797	1,224,108	1,053,650	564,588
34291	Transportation equipment hardware.....	778,514	622,480	502,068	583,470	532,912	472,157	441,014	203,281
34292	Furniture hardware.....	95,334	92,539	87,279	85,688	94,492	77,409	60,189	39,134
34293	Vacuum and insulated bottles, jugs and chests.....	47,973	47,974	45,873	52,969	48,679	41,147	27,916	17,779
34294	Builders' hardware.....	465,795	463,635	430,065	403,523	418,444	387,083	323,518	184,435
34295	Other hardware.....	237,425	257,143	239,012	238,054	244,792	215,220	191,281	109,222
34290	Hardware, n.e.c., n.s.k.....	38,078	(27,815)	(24,655)	(27,811)	(30,478)	31,092	9,732	10,737

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Data for Alaska and Hawaii are excluded.



TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
CUTLERY, SCISSORS, SHEARS, TRIMMERS AND SNIPS (34211)			FILES, RASPS, AND FILE ACCESSORIES AND OTHER HAND TOOLS (34233)			FURNITURE HARDWARE (34292)—Continued		
United States, total....	90,484	77,326	United States, total....	154,595	142,017	West North Central.....	3,637	1,549
New England.....	28,009	23,325	New England.....	16,043	20,845	Missouri.....	3,637	1,549
Massachusetts.....	6,792	6,186	Middle Atlantic.....	46,176	40,124	South.....	11,144	7,203
Connecticut.....	12,039	8,690	New York.....	21,680	17,378	North Carolina.....	5,901	(2)
Middle Atlantic.....	38,634	41,345	New Jersey.....	5,324	6,481	Pacific.....	4,447	(2)
New York.....	17,465	21,901	Pennsylvania.....	19,172	16,265	BUILDERS' HARDWARE (34294)		
New Jersey.....	15,496	14,958	East North Central.....	66,742	58,204	United States, total....	465,795	387,083
Pennsylvania.....	5,673	4,486	Ohio.....	31,948	30,030	New England.....	86,136	86,915
East North Central.....	13,136	7,447	Indiana.....	17,277	12,467	Connecticut.....	71,182	69,749
Ohio.....	8,672	4,565	Illinois.....	13,869	12,732	Middle Atlantic.....	43,728	47,894
Michigan.....	1,085	(Z)	Michigan.....	2,238	1,421	New York.....	21,013	16,956
West North Central.....	1,234	1,008	Wisconsin.....	1,410	1,554	New Jersey.....	1,454	6,527
South.....	6,855	2,472	West North Central.....	3,326	4,667	Pennsylvania.....	21,261	24,411
West.....	2,616	1,729	South.....	18,366	14,222	East North Central.....	184,540	142,871
MECHANICS' HAND SERVICE TOOLS (34231)			Pacific.....	3,942	(2)	Ohio.....	19,582	11,120
United States, total....	252,390	188,460	HAND SAWS, SAW BLADES AND SAW ACCESSORIES (34250)			Indiana.....	10,753	6,296
New England.....	40,863	31,386	United States, total....	85,000	(NA)	Illinois.....	102,016	81,491
Massachusetts.....	23,253	17,292	New England.....	37,078	(NA)	Michigan.....	35,568	31,602
Connecticut.....	17,414	13,482	Middle Atlantic.....	11,405	(NA)	Wisconsin.....	16,621	12,362
Middle Atlantic.....	59,973	46,981	New York.....	8,086	(NA)	West North Central.....	20,755	14,523
New York.....	30,500	26,050	North Central.....	16,494	(NA)	Minnesota.....	8,854	5,637
New Jersey.....	15,555	10,109	Illinois.....	9,098	(NA)	South Atlantic.....	19,540	5,692
Pennsylvania.....	13,918	10,822	South.....	16,965	(NA)	Florida.....	14,547	1,808
East North Central.....	102,909	76,765	Pacific.....	3,058	(NA)	East South Central.....	23,558	17,676
Ohio.....	31,352	27,845	California.....	1,015	(NA)	West South Central.....	2,747	2,545
Illinois.....	32,148	29,102	TRANSPORTATION EQUIPMENT HARDWARE (34291)			Pacific.....	84,791	67,398
Wisconsin.....	20,176	4,458	United States, total....	778,514	472,157	California.....	84,454	(2)
West North Central.....	15,875	16,154	Northeast.....	175,684	112,250	OTHER HARDWARE (34295)		
Minnesota.....	6,435	8,654	Connecticut.....	14,834	13,815	United States, total....	237,425	215,220
Kansas.....	1,667	(2)	New York.....	40,232	9,032	New England.....	34,907	38,795
South.....	11,964	2,803	East North Central.....	556,188	327,321	Massachusetts.....	6,593	7,102
Mountain.....	2,410	(Z)	Ohio.....	133,888	85,175	Connecticut.....	26,127	30,488
Pacific.....	18,396	(2)	Illinois.....	32,164	22,460	Middle Atlantic.....	46,993	43,174
California.....	16,775	12,494	Michigan.....	351,353	199,292	New York.....	18,817	24,955
EDGE TOOLS (34232)			West North Central.....	1,756	3,426	New Jersey.....	10,705	6,712
United States, total....	106,258	90,614	South Atlantic.....	5,676	(Z)	Pennsylvania.....	17,471	11,507
New England.....	37,485	33,088	East South Central.....	3,498	(Z)	East North Central.....	98,620	88,081
Massachusetts.....	25,278	21,406	West South Central.....	1,083	(Z)	Ohio.....	24,435	19,202
Connecticut.....	9,500	8,887	West.....	34,629	23,054	Illinois.....	25,070	25,902
Middle Atlantic.....	15,026	15,271	California.....	31,746	22,394	Michigan.....	25,638	23,519
New York.....	5,853	7,594	FURNITURE HARDWARE (34292)			West North Central.....	5,621	5,033
New Jersey.....	4,192	2,325	United States, total....	95,334	77,409	Iowa.....	3,788	3,289
Pennsylvania.....	4,981	5,352	New England.....	20,705	20,973	South Atlantic.....	6,480	4,931
East North Central.....	30,608	19,158	Connecticut.....	14,485	14,786	East South Central.....	6,655	2,334
Ohio.....	14,554	8,302	Middle Atlantic.....	14,181	10,675	Tennessee.....	4,610	1,935
Illinois.....	14,689	8,166	New York.....	10,951	8,185	West South Central.....	8,168	4,788
Michigan.....	1,020	1,574	East North Central.....	41,220	32,068	West.....	29,981	28,084
West North Central.....	13,819	13,990	Illinois.....	23,044	18,411	Oregon.....	2,835	1,271
Missouri.....	12,189	13,417				California.....	25,567	25,841
South.....	5,141	5,914						
West.....	4,179	3,195						
California.....	2,676	1,758						

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 34211, New Hampshire, Rhode Island, Illinois, Wisconsin, Maryland, Virginia, West Virginia, and California; 34231, Indiana, Wisconsin, Missouri, Nebraska, West Virginia, North Carolina, South Carolina, Colorado, and Oregon; 34232, Vermont, Iowa, West Virginia, Colorado, and Washington; 34233, Massachusetts, Connecticut, Iowa, West Virginia, Kentucky, Mississippi, and California; 34250, Massachusetts, Connecticut, Pennsylvania, Ohio, Michigan, Virginia, Kentucky, Mississippi, and Oregon; 34291, Maine, Massachusetts, New Jersey, Pennsylvania, Indiana, Wisconsin, Iowa, North Carolina, Georgia, Florida, Kentucky, Alabama, Colorado, and Washington; 34292, Massachusetts, Pennsylvania, Indiana, Michigan, Virginia, Arkansas, and California; 34294, New Hampshire, Massachusetts, Missouri, Virginia, South Carolina, Tennessee, Mississippi, Oklahoma, and Texas; 34295, Rhode Island, Indiana, Wisconsin, Maryland, West Virginia, North Carolina, Georgia, Kentucky, Arkansas, and Texas.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3411.—METAL CANS			
	Materials, parts, containers, and supplies, total.....		(X)	1,212,470	(X)	1,131,055
	Mill shapes and forms (except castings):					
	Carbon steel:					
331017	Wire and wire products.....	Short tons.....	3,353	1,090	8,525	1,865
331018	Tin plate, terneplate and black plate.....	..do.....	4,611,431	938,805	4,700,337	889,531
331011	Bars and bar shapes.....	..do.....	7,904	1,671	82	35
331012	Sheet and strip.....	..do.....			16,939	4,049
331019	All other carbon steel mill shapes and forms.....	..do.....			-	-
331020	Alloy steel (except stainless).....	..do.....	340	177	(NA)	110
331031	Stainless steel mill shapes and forms.....	..do.....				
	Aluminum and aluminum base alloy:					
335202	Sheet, plate and foil.....	1,000 lbs.....	2115,190	35,412	2,020	1,293
335205	Extruded shapes, including extruded rod, pipe, tube, etc.....	..do.....				
335209	All other aluminum mill shapes and forms (wire, rod, etc.).....	..do.....				
333401	Aluminum and aluminum-base alloy refinery shapes.....	Short tons.....	(D)	(D)	(NA)	(NA)
285101	Paints, varnishes, lacquers, japans, and enamels.....	1,000 gal.....	15,657	39,422	(NA)	(NA)
260091	Paper and paperboard containers, including corrugated boxes.....		(X)	33,253	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	151,481	(X)	227,510
97600	Materials, parts, containers, and supplies, n.s.k.....		(X)	11,159	(X)	6,662
			INDUSTRY 3421.—CUTLERY			
	Materials, parts, containers, and supplies, total.....		(X)	64,462	(X)	44,352
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	4,300	773	2,569	496
331012	Sheet and strip.....	..do.....	14,216	5,450	11,871	5,346
331013	Plates.....	..do.....	(3)	(3)	1,626	434
331017	Wire and wire products.....	..do.....	341	109		
331019	All other carbon steel mill shapes and forms.....	..do.....	32,392	3543		
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	362	163	180	103
331029	All other alloy steel mill shapes and forms.....	..do.....			1,951	2,019
331031	Stainless steel.....	..do.....	6,732	6,405	4,189	3,853
	Copper and copper-base alloy mill shapes and forms:					
335102	Rod, bar and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	3,750	1,669	3,279	1,466
335123	Plate, sheet and strip (including military cups and discs).....	..do.....				
335127	Pipe and tube.....	..do.....				
	Aluminum and aluminum-base alloy mill shapes and forms:					
335202	Sheet, plate, and foil.....	..do.....	2,755	1,219	1,477	717
335205	Extruded shapes.....	..do.....			57	51
335209	All other aluminum mill shapes and forms.....	..do.....				
	Castings (rough and semifinished): <sup>4</sup>					
332011	Iron (gray and malleable).....	Short tons.....	748	438	627	353
332300	Steel.....	..do.....	149	213	420	665
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	26	17	137	146
336200	Copper and copper-base alloy.....	..do.....	-	-	109	67
339100	Iron and steel forgings <sup>4</sup> .....	Short tons.....	205	276	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	42,761	(X)	23,804
976000	Materials, parts, containers and supplies, n.s.k. <sup>5</sup> .....		(X)	4,169	(X)	4,832
			INDUSTRY 3423.—HAND AND EDGE TOOLS			
	Materials, parts, containers, and supplies, total.....		(X)	162,649	(X)	134,803
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	91,726	17,165	69,319	13,055
331012	Sheet and strip.....	..do.....	60,088	11,858	54,507	10,381
331013	Plates.....	..do.....	967	236	833	149
331017	Wire and wire products.....	..do.....	4,828	1,549	6,126	1,780
331019	All other carbon steel mill shapes and forms.....	..do.....	4,719	1,588	2,371	895
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	37,330	10,233	29,995	8,232
331029	All other alloy steel mill shapes and forms.....	..do.....	3,413	1,959	1,734	1,725

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3423.—HAND AND EDGE TOOLS—Continued			
	Mill shapes and forms (except castings)--Continued:					
331031	Stainless steel.....	Short tons.....	527	554	344	350
335728	Copper and copper-base alloy mill shapes and forms:					
335790	Bare wire.....	1,000 lbs.....	382	265	118	81
	Insulated wire and cable.....	1,000 lbs. (copper content)			177	187
335102	Rod, bar, and mechanical wire.....	1,000 lbs.....			875	494
335123	Plate, sheet and strip.....	..do.....	417	276	1,809	1,010
335127	Pipe and tube.....	..do.....	761	584		
	Aluminum and aluminum-base alloy mill shapes and forms:					
335202	Sheet, plate, and foil.....	..do.....	3,261	1,297	2,804	1,317
335205	Extruded shapes.....	..do.....	773	453	550	437
335209	All other aluminum mill shapes and forms.....	..do.....	464	239		
	Castings (rough and semifinished) <sup>4</sup> :					
332011	Iron (gray and malleable).....	Short tons.....	15,400	8,791	12,183	5,702
332300	Steel.....	..do.....	1,904	1,338	1,019	747
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	3,157	2,209	2,551	1,725
336200	Copper and copper-base alloy.....	..do.....	(D)	(D)	364	264
339100	Iron and steel forgings <sup>6</sup> .....	Short tons.....	8,149	7,277	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	67,978	(X)	71,778
976000	Materials, parts, containers, and supplies, n.s.k. <sup>5</sup> .....	.....	(X)	26,306	(X)	14,988
			INDUSTRY 3425.—HANDSAWS AND SAW BLADES			
	Materials, parts, containers, and supplies, total.....	.....	(X)	32,665	(X)	28,132
	Mill shapes and forms (except castings):					
	Carbon steel:					
331012	Sheet and strip.....	Short tons.....	8,003	5,190	5,388	3,343
331013	Plates.....	..do.....	777	244	917	212
331011	Bars and bar shapes.....	..do.....	3,621	1,428	1,224	452
331017	Wire and wire products.....	..do.....			1,079	487
331019	All other carbon steel mill shapes and forms.....	..do.....				
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	10,444	12,791	3,056	2,148
331029	All other alloy steel mill shapes and forms.....	..do.....			5,345	8,218
331031	Stainless steel.....	..do.....	19	29	24	58
	Aluminum and aluminum-base alloy mill shapes and forms:					
335205	Extruded shapes, (including extruded rod, bar, pipe, tube, etc.)	1,000 lbs.....	(D)	(D)	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	12,118	(X)	8,914
973000	Materials, parts, containers, and supplies, n.s.k. <sup>5</sup> .....	.....	(X)	1,865	(X)	4,300
			INDUSTRY 3429.—HARDWARE, N.E.C.			
	Materials, parts, containers, and supplies, total.....	.....	(X)	653,977	(X)	530,894
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	89,448	16,386	57,026	9,943
331012	Sheet and strip.....	..do.....	635,202	111,317	470,952	82,033
331013	Plates.....	..do.....	3,857	642	3,617	520
331017	Wire and wire products.....	..do.....	91,331	19,662	63,582	14,320
331019	All other carbon steel mill shapes and forms.....	..do.....	14,714	4,944	16,749	4,649
331020	Alloy steel (except stainless).....	..do.....	3,556	1,579	5,843	2,864
331031	Stainless steel.....	..do.....	37,860	37,264	26,035	26,410
	Copper and copper-base alloy:					
335728	Bare wire for electrical conduction.....	1,000 lbs.....	(D)	(D)	1,480	803
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	(D)	(D)	325	218
335102	Rod, bar, and mechanical wire.....	1,000 lbs.....	22,815	10,711	56,802	24,887
335123	Plate, sheet, and strip.....	..do.....	30,777	17,571		
335127	Pipe and tube.....	..do.....	2,026	1,636		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	..do.....	25,110	11,346	17,056	8,551
335205	Extruded shapes.....	..do.....	16,276	7,789	9,707	4,855
335209	All other aluminum mill shapes and forms.....	..do.....	8,361	4,459		
	Primary metals:					
333122	Copper and copper-base alloy refinery shapes.....	Short tons.....	7,411	4,820	7,512	3,879
333348	Zinc and zinc-base alloy refinery shapes.....	..do.....	119,664	33,764	61,802	17,144
333401	Aluminum and aluminum-base alloy refinery shapes.....	..do.....	4,355	2,402	(NA)	(NA)

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3429.—HARDWARE, N.E.C.—Continued			
999808	Scrap (exclude home scrap):					
	Aluminum and aluminum-base alloy.....	Short tons.....	(D)	(D)	(NA)	(NA)
999812	Copper and copper-base alloy.....	do.....	(D)	(D)	152	78
	Castings (rough and semifinished) <sup>7</sup> :					
332011	Iron (gray and malleable).....	do.....	58,850	20,449	38,859	13,893
332300	Steel.....	do.....	4,204	2,344	12,150	4,626
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	5,254	3,382	4,869	2,788
336200	Copper and copper-base alloy.....	do.....	(NA)	5,585	9,246	6,506
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	291,804	(X)	243,300
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....		(X)	44,121	(X)	58,627

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. Data are included in code 970099.  
 (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Data for Alaska and Hawaii are excluded.

<sup>2</sup>Data on the weight of aluminum consumed in the production of cans constructed wholly of metal are published in Current Industrial Reports Series M34D, "Metal Cans." The consumption total reported in the census also includes aluminum consumed in the production of secondary products.

<sup>3</sup>Material code 331013, carbon steel plates, is combined with material code 331019, all other carbon steel mill shapes and forms.

<sup>4</sup>Does not include castings or forgings produced and consumed in the same establishment.

<sup>5</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

<sup>6</sup>In 1963, 3,802 short tons of iron and steel forgings were produced and consumed in the same establishment. No comparable data are available for 1958.

<sup>7</sup>In 1963, there were, in addition, 2,748 short tons of iron castings and 2,216 thousand pounds of aluminum castings produced and consumed in the same establishment. Data for other types of castings produced and consumed in the same establishment in 1963 are not available. No data are available for 1958.



**TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962**

Item	Metal cans (SIC 3411)	Cutlery (SIC 3421)	Edge tools (SIC 3423)	Hand saws and saw blades (SIC 3425)	Hardware, n.e.c. (SIC 3429)
Total cost of purchased fuels and electric energy.....\$1,000..	15,044	2,295	7,860	1,334	16,036
Total cost of purchased fuels.....do....	7,267	1,069	3,942	479	6,702
Bituminous coal, lignite, and anthracite:					
Quantity.....1,000 short tons..	67	(S)	50	3	182
Cost.....\$1,000..	563	(S)	328	34	1,509
Coke and breeze:					
Quantity.....1,000 short tons..	-	(S)	(S)	-	4
Cost.....\$1,000..	-	(S)	(S)	-	132
Fuel oil (distillate and residual):					
Quantity.....1,000 barrels of 42 gallons..	262	173	329	31	501
Cost.....\$1,000..	844	541	1,290	117	1,739
Gas (natural, manufactured, still, blast furnace, and coke oven):					
Quantity.....million cu.ft..	8,986	187	2,909	291	4,492
Cost.....\$1,000..	5,432	177	1,995	273	2,669
Other fuels.....do....	428	(S)	328	55	653
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	668	70	233	52	682
Cost.....\$1,000..	7,777	1,226	3,918	855	9,334
Generated less sold.....million kw.-hrs..	(S)	22	6	-	35
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	364	48	204	27	424
Prime movers, total.....do....	86	6	18	2	33
Driving generators.....do....	6	5	4	-	16
Not driving generators.....do....	80	1	14	2	17
Electric motors, total.....do....	281	43	191	25	393
Driven by purchased energy.....do....	278	42	186	25	390
Driven by energy generated at establishment.....do....	3	2	6	-	3
Aggregate horsepower per 100 production workers.....	785	507	783	682	613

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3421-	CUTLERY										
	Entire industry.....	161	11,837	64,281	9,487	19,312	43,896	213,998	72,934	283,352	12,382
	Establishments with—										
	90% or more specialization...	140	8,387	43,406	6,853	14,204	30,183	100,144	37,991	137,533	4,355
34211	Cutlery, scissors, shears, trimmers, and snips (primary product class of estab.).....	96	7,322	35,227	6,147	12,318	25,904	62,713	34,858	95,447	1,753
	Establishments with—										
	90% or more specialization....	80	5,867	28,167	4,959	10,053	20,723	47,797	22,898	70,530	977
	75-89% specialization.....	5	119	580	98	176	424	1,114	637	1,720	(D)
3423-	HAND AND EDGE TOOLS										
	Entire industry.....	716	31,480	176,837	24,508	48,716	125,652	364,265	207,356	565,590	10,955
	Establishments with—										
	90% or more specialization...	631	21,741	120,164	17,134	34,138	87,123	249,197	135,518	378,412	7,473
	75-89% specialization.....	25	2,862	16,201	2,205	4,465	11,306	33,361	22,642	57,579	1,016
34231	Mechanics' hand service tools (primary product class of estab.).....	169	15,107	86,502	11,225	22,389	57,861	188,257	108,691	291,143	5,656
	Establishments with—										
	90% or more specialization....	114	8,219	45,793	6,105	12,207	30,789	109,751	61,853	167,320	3,366
	75-89% specialization.....	22	1,872	10,293	1,469	2,950	7,491	19,921	10,744	30,434	673
34232	Edge tools (primary product class of estab.).....	168	5,706	33,163	4,656	9,333	24,732	60,026	26,851	86,597	1,641
	Establishments with—										
	90% or more specialization....	137	3,410	20,030	2,827	5,764	15,434	33,609	13,459	46,622	935
	75-89% specialization.....	8	609	3,655	449	858	2,216	6,165	2,604	8,611	79
34233	Files, racks, and file accessories and other hand tools (primary product class of estab.).....	95	8,937	49,001	7,206	14,291	36,491	97,408	63,061	160,502	3,084
	Establishments with—										
	90% specialization.....	67	4,360	24,258	3,670	7,066	18,994	48,754	27,547	75,970	1,119
	75-89% specialization.....	11	1,683	9,303	1,249	2,586	6,387	18,649	15,765	35,722	498
3425-	HAND SAWS AND SAW BLADES										
	Entire industry.....	76	5,095	29,148	3,768	7,721	19,621	65,634	38,610	102,782	6,340
	Establishments with—										
	90% or more specialization...	56	2,281	13,600	1,642	3,448	8,254	27,818	17,395	44,976	828
	75-89% specialization.....	3	748	3,938	556	1,112	2,363	8,775	6,109	14,573	246
3429-	HARDWARE, N.E.C.										
	Entire industry.....	1,069	88,142	529,217	70,238	145,633	383,419	1,063,661	730,482	1,785,134	70,959
	Establishments with—										
	90% or more specialization...	899	67,284	406,329	53,925	112,241	296,190	810,751	550,598	1,353,350	55,778
	75-89% specialization.....	54	8,091	45,088	6,332	13,584	32,468	86,553	63,344	149,072	3,746
34291	Transportation equipment hardware (primary product class of estab.).....	135	34,839	246,812	28,982	62,713	194,408	522,353	349,326	866,809	41,283
	Establishments with—										
	90% or more specialization....	88	23,013	167,624	19,050	41,508	131,371	362,237	246,333	605,776	33,312
	75-89% specialization.....	19	3,397	20,498	2,914	6,066	16,686	36,993	29,697	66,333	655
34292	Furniture hardware (primary product class of estab.).....	91	7,564	40,871	5,739	12,235	28,386	67,212	47,309	114,922	4,461
	Establishments with—										
	90% or more specialization....	60	1,730	8,129	1,427	2,852	5,666	15,969	13,710	29,225	713
	75-89% specialization.....	13	1,067	5,482	672	1,863	4,085	8,083	5,111	13,138	95
34293	Vacuum and insulated bottles, jugs, and chests (primary product class of estab.).....	9	2,465	13,295	1,726	3,248	7,533	29,657	25,105	53,627	1,806
34294	Builders' hardware (primary product class of estab.).....	237	29,421	158,680	23,099	46,114	107,042	313,161	196,780	505,929	15,291
	Establishments with—										
	90% or more specialization....	173	21,747	114,454	17,369	34,570	79,606	221,065	135,166	351,349	11,278
	75-89% specialization.....	25	3,197	19,500	2,364	4,932	11,718	46,296	27,333	73,422	2,276
34295	Other hardware (primary product class of estab.).....	190	11,305	58,688	8,644	17,184	38,054	107,631	94,499	203,111	5,050
	Establishments with—										
	90% or more specialization....	127	6,054	34,147	4,493	9,041	19,937	60,273	54,844	116,170	2,152
	75-89% specialization.....	14	1,023	5,760	820	1,621	3,963	10,606	7,033	17,495	817

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.



TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3411.—METAL CANS							
Machine shop.....	128	29	53	46	2,826	70	587	2,169
Tool and die shop.....	12	7	4	1	107	15	(D)	(D)
Plate or structural fabrication.....	8	1	1	6	771	(D)	(D)	(D)
Stamping, blanking and forming of metals.....	131	20	35	76	11,673	44	346	11,283
Painting, lacquering and enameling on metals.....	77	17	25	35	2,319	41	227	2,051
	INDUSTRY 3421.—CUTLERY							
Ferrous foundry.....	1	-	-	1	(D)	-	-	(D)
Nonferrous foundry (except die casting).....	1	1	-	-	(D)	(D)	-	-
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	19	15	4	-	67	27	40	-
Electroplating and other plating.....	17	8	7	2	152	16	(D)	(D)
Heat treating of metals.....	50	42	5	3	201	59	47	95
Automatic screw machine department.....	6	4	1	1	41	(D)	(D)	(D)
Machine shop.....	46	23	19	4	413	50	157	206
Tool and die shop.....	25	12	11	2	157	23	(D)	(D)
Stamping, blanking and forming of metals.....	61	35	21	5	684	62	160	462
Painting, lacquering and enameling on metals.....	26	21	5	-	77	36	41	-
	INDUSTRY 3423.—HAND AND EDGE TOOLS							
Ferrous foundry.....	3	1	2	-	17	(D)	(D)	-
Nonferrous foundry(except die casting).....	9	7	2	-	29	(D)	(D)	-
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	99	38	38	23	1,285	96	367	822
Electroplating and other plating.....	59	32	26	1	295	54	(D)	(D)
Heat treating of metals.....	155	119	31	5	641	199	288	154
Automatic screw machine department.....	62	35	19	8	459	56	155	248
Machine shop.....	200	88	73	39	2,605	178	673	1,754
Tool and die shop.....	114	67	34	13	945	136	350	459
Stamping, blanking and forming of metals.....	162	83	60	19	1,893	148	529	1,216
Painting, lacquering and enameling on metals.....	134	110	23	1	391	160	(D)	(D)
	INDUSTRY 3425.—HAND SAWS AND SAW BLADES							
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	3	2	-	1	(D)	(D)	-	(D)
Electroplating and other plating.....	5	3	2	-	18	(D)	(D)	-
Heat treating of metals.....	24	14	9	1	157	28	(D)	(D)
Automatic screw machine department.....	3	3	-	-	6	6	-	-
Machine shop.....	25	10	8	7	391	20	92	279
Tool and die shop.....	11	6	5	-	60	10	50	-
Stamping, blanking and forming of metals.....	27	16	7	4	441	30	65	346
Painting, lacquering and enameling on metals.....	13	12	1	-	26	(D)	(D)	-
	INDUSTRY 3429.—HARDWARE, N.E.C.							
Ferrous foundry.....	8	2	2	4	202	(D)	(D)	180
Nonferrous foundry (except die casting).....	53	17	24	12	666	43	212	411
Nonferrous die casting.....	52	18	14	20	2,045	38	128	1,879
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	24	14	6	4	203	22	53	128
Electroplating and other plating.....	149	67	41	41	3,829	158	384	3,287
Galvanizing and other hot dip coating.....	13	11	-	2	76	(D)	-	(D)
Heat treating of metals.....	52	44	6	2	223	74	(D)	(D)
Automatic screw machine department.....	80	44	29	7	573	75	285	213
Machine shop.....	263	84	108	71	5,912	143	1,059	4,710
Tool and die shop.....	225	126	72	27	3,622	255	687	2,680
Foundry pattern shop.....	37	34	2	1	83	45	(D)	(D)
Plate or structural fabrication.....	35	21	14	-	142	31	111	-
Stamping, blanking and forming of metals.....	349	124	133	92	19,136	200	1,344	17,592
Painting, lacquering and enameling on metals.....	243	172	51	20	1,847	275	441	1,131

See footnotes at end of table.

TABLE 9. Establishments, and Production Workers for Selected Metalworking Operations: 1963—Continued

Footnotes for Table 9-34A

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below.

Item	3411	3421	3423	3425	3429
Total number of establishments in the industry.....	270	161	716	76	1,069
Number of establishments which reported one or more of the specified operations.....	184	79	303	39	513
Percent of industry production workers in these establishments.....	85-90	85-90	80-85	80-85	85-90
Number of establishments which reported "none" of the operations apply.....	49	10	35	5	53
Percent of industry production workers in these establishments.....	10-15	0-5	0-5	0-5	0-5
Percent of industry production workers in establishments which completed metalworking operations inquiry.....	over 95	90-95	80-85	85-90	90-95

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>These size groups are based on the number of production workers in the specified operation. They are not based on total employment of the establishment.





## HEATING APPARATUS, EXCEPT ELECTRIC, AND PLUMBING FIXTURES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3431—Enameled Iron and Metal Sanitary Ware
- 3432—Plumbing Fixture Fittings and Trim (Brass Goods)
- 3433—Heating Equipment, Except Electric

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3431—ENAMELED IRON AND METAL SANITARY WARE

This industry comprises establishments primarily engaged in manufacturing enameled iron, cast iron, or pressed metal sanitary ware. Establishments primarily engaged in manufacturing vitreous and semivitreous pottery sanitary ware are classified in industry 3261; and those manufacturing porcelain enameled kitchen, household, and hospital ware in industry 3461. For a detailed list of products of industry 3431, refer to table 6A, product codes 3431002 to 3431098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Metal Plumbing Fixtures Industry in 1963 totaled \$234 million. This amount included shipments of metal plumbing fixtures (primary products) valued at \$184 million, shipments of other products (secondary products) valued at \$34 million, and miscellaneous receipts (mainly resales) at \$16 million.

This industry's shipments of metal plumbing fixtures in 1963 represented 84 percent of its total product shipments. The industry specialization ratio in 1958 was also 84 percent. Secondary products shipped by this industry in 1963 consisted mainly of plumbing fixture fittings and trim (brass goods).

Shipments of metal plumbing fixtures by this industry in 1963 represented 91 percent of all shipments of these products (\$204 million) by all industries. In 1958 the coverage ratio was 92 percent. Another industry shipping metal plumbing fixtures included industry 3461, Metal Stampings, \$9.3 million.



The production index for the primary products of the industry increased to 136 in 1963 from the 1958 level of 104. The unit value index for 1963 was 72 compared to 83 in 1958. Both indexes were computed on a basis of 1954 = 100.

Industry 3431 includes establishments which fall into two significantly different categories, namely those producing cast iron plumbing fixtures and those producing metal fixtures of pressed metal. Accordingly, the manufacturing plants included in this industry involve different manufacturing processes depending upon the line of products produced. Those fixture plants producing cast iron fixtures include significant foundry operations while the pressed metal fixture plants are more closely allied to metal fabricating plants producing their product by forming processes (stamping, drawing, etc.).

The operations of the largest establishments in this industry cover the entire production process including the casting of the fixture, through the machining, finishing, and assembly operations. In general these processes are carried on at a single manufacturing plant. However, in a few instances the foundry operations were performed at separate locations and, accordingly, those separate foundries were classified in the foundry industries (SIC industries 3321, 3322, 3323, 3361, 3362 and 3369). In the latter case the plants classified in this industry would be limited to machining and finishing operations on castings received from their associated plants.

Certain of the companies operating plants classified in this industry also have establishments producing allied products classified in other industries. For example, the larger fixture manufacturers also have plants engaged in manufacturing fixture fittings and such allied products as vitreous china fixtures, kitchen cabinets, warm air furnaces, boilers and other consumer durable items in the plumbing and heating line.

As is shown in table 7, certain of the more important materials consumed by the industry are pig iron, and iron and steel scrap metal consumed in the foundry operations and steel mill shapes and forms. In addition, data are also shown for the quantity of iron castings produced and consumed within the plants classified in this industry.

Data on shipments of plumbing fixtures were collected by the Bureau of the Census on a quarterly basis on Form M34E. The detailed statistics shown in table 6A were taken from the quarterly survey.

#### 3432--PLUMBING FIXTURE FITTINGS AND TRIM (BRASS GOODS)

This industry comprises establishments primarily engaged in manufacturing plumbing fixture fittings and trim (brass goods). Establishments primarily engaged in the manufacture of steam or water line valves are classified in industry 3494. For a detailed list of products of industry 3432, refer to table 6A, product codes 3432001 to 3432098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Plumbing Fittings, Brass Goods, Industry in 1963 totaled \$334 million. This amount included shipments of plumbing fixture fittings and trim, brass goods (primary products) valued at \$274 million, shipments of other products (secondary products) valued at \$31 million, and miscellaneous receipts (mainly resales) at \$29 million.

This industry's shipments of plumbing fixture fittings and trim, brass goods, in 1963 represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 included metal valves for piping systems (except plumbing and heating valves) (\$3.2 million),

and plumbing and heating valves and specialties (except plumbers brass goods) (\$3.2 million).

Shipments of plumbing fixture fittings and trim, brass goods, by this industry in 1963 represented 83 percent of all shipments of these products (\$330 million) by all industries. In 1958 the coverage ratio was also 83 percent. Another industry shipping plumbing fixture fittings and trim, brass goods included industry 3494, Valves and Pipe Fittings, \$10.8 million.

The production index for the primary products of the industry increased to 167 in 1963 from the 1958 level of 123. The unit value index for 1963 was 93 compared to 99 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3433—HEATING EQUIPMENT, EXCEPT ELECTRIC

This industry comprises establishments primarily engaged in manufacturing heating equipment for all purposes other than power, including all gas, oil, and stoker coal fired equipment for the automatic utilization of gaseous, liquid, and solid fuels. Establishments primarily engaged in manufacturing electric stoves and ranges are classified in industry 3631; boiler shops primarily engaged in the production of industrial, power, and marine boilers in industry 3443; and industrial process furnaces and ovens in industry 3567. For a detailed list of products of industry 3433, refer to table 6A, product codes 3433110 to 3433698.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Heating Equipment, Except Electric, Industry in 1963 totaled \$1,020 million. This amount included shipments of heating equipment, except electric (primary products) valued at \$721 million, shipments of other products (secondary products) valued at \$226 million, and miscellaneous receipts of \$73 million.

This industry's shipments of heating equipment, except electric, in 1963 represented 76 percent of its total product shipments. The industry specialization ratio in 1958 was 81 percent. Secondary products shipped by this industry in 1963 included steel power boilers, parts and attachments (over 15 p.s.i. steam working pressure) (\$18.6 million), and heat transfer equipment (\$77.6 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent to this specialization is indicated in table 8. Approximately 22 percent of the total industry shipments are represented by plants specializing in product class 34332, Warm air furnaces (except floor and wall), except parts; and 30 percent in product class 34336, Other heating equipment (except electric) and parts for nonelectric heating equipment.

Shipments of heating equipment, except electric, by this industry in 1963 represented 81 percent of all shipments of these products (\$893 million) by all industries. In 1958 the coverage ratio was 80 percent. Another industry shipping heating equipment, except electric was industry 3585, Refrigeration Machinery, \$69.2 million.

The production index for the primary products of the industry increased to 116 in 1963 from the 1958 level of 103. The unit value index for 1963 was 105 compared to 110 in 1958. Both indexes were computed on a basis of 1954 = 100.

Inasmuch as the primary products of industry 3433 represent a wide and heterogeneous group of heating equipment products, the establishments in this industry are involved in



a variety of manufacturing processes. Many heating equipment plants are engaged in metal fabricating activities, namely, stamping and forming. In addition, a significant number of the establishments in the industry are engaged in foundry and plate fabricating activities.

Some of the companies operating plants classified in industry 3433 have establishments engaged in the production of allied products such as metal tanks, electric and nonelectric ranges, electric and nonelectric water heaters and other consumer durable items principally in the heating and cooking line.

The establishments of this industry vary greatly in the degree to which they manufacture the components used in the production of heating and cooking equipment. Some manufacturers produce practically all of the component parts and incorporate only such purchased parts as the motor, electrical controls, and blowers. Other manufacturers produce only a small part of the complete unit purchasing most of the components from other manufacturers and limiting their manufacturing activities to assembly operations.

Data are shown in table 6A for "oil burners sold separately." These statistics exclude the quantity and value of oil burners which were both produced and incorporated into other types of heating equipment in the same plant. In these instances the value of the boiler- or furnace-burner unit includes the value of the oil burner.

Data on shipments of domestic heating stoves, mechanical stokers, oil burners, and furnaces were collected during 1963 by the Bureau of the Census on Annual Form MA-34N, Heating and Cooking Equipment (Except Electric). The product data shown for 1963 in table 6A are from that source.

Data for unit ventilators, unit heaters, and parts for unit heaters and ventilators, and heat transfer coils were collected during 1963 by the Bureau of the Census on a quarterly basis on Form M35H, Fans and Blowers. The product data shown in table 6A were taken from the quarterly survey.

# PLUMBING AND HEATING EXCEPT ELECTRIC: SIC 343

Value Added by Manufacture by State: 1963

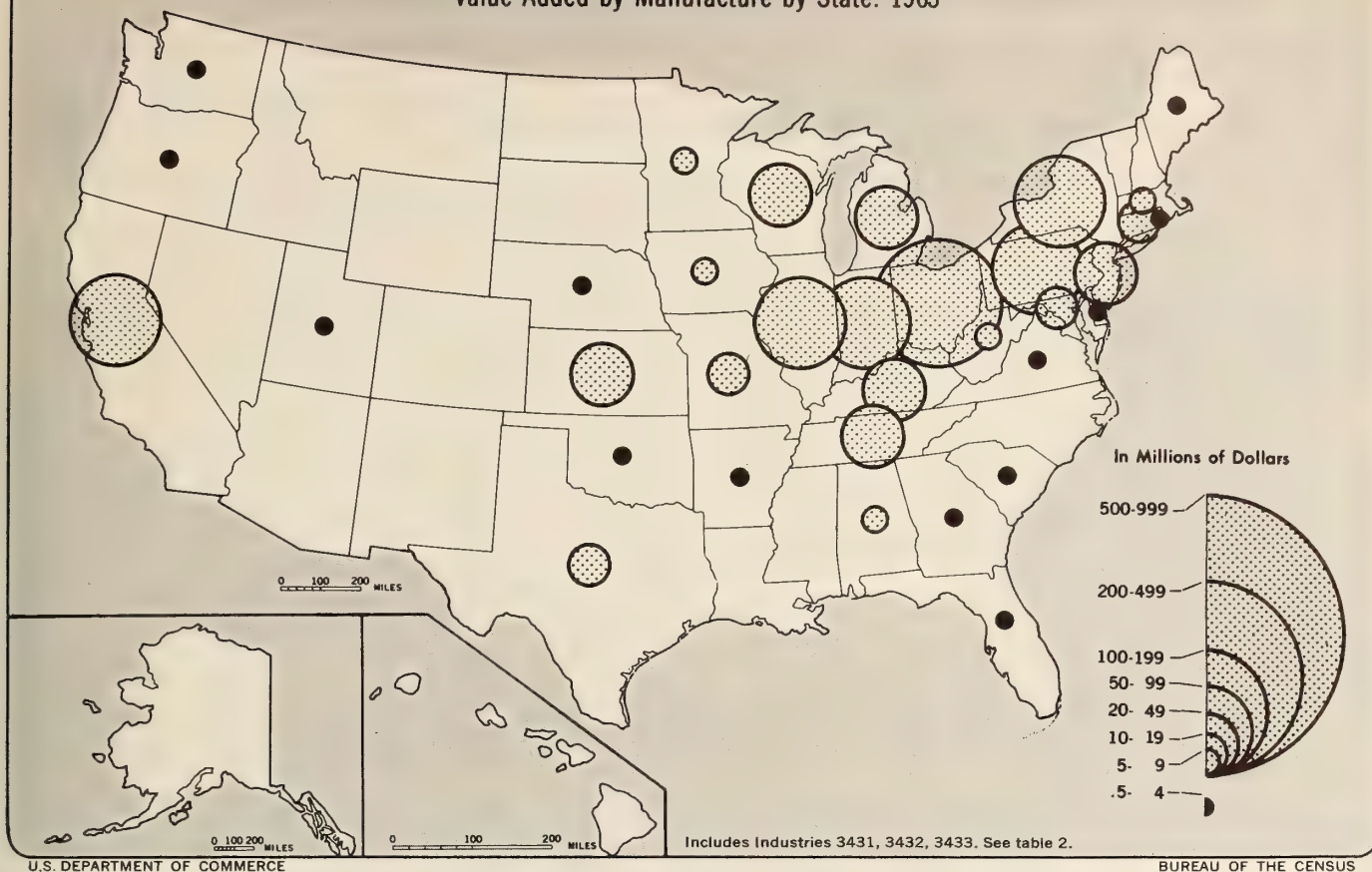




TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
	INDUSTRY 3431.—METAL PLUMBING FIXTURES													
1963.....	75	81	45	11,011	68,162	8,833	17,501	50,373	139,859	96,196	234,896	5,863	84	91
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,498	57,557	7,588	15,678	42,417	111,764	95,075	209,541	(5,432)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,647	48,682	7,004	13,950	37,157	87,485	78,780	178,453	(4,996)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	(9,829)	(54,674)	(7,933)	(16,139)	(41,564)	(110,742)	(91,128)	(196,613)	(5,027)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	(11,784)	(68,704)	(9,281)	(19,842)	(51,727)	(133,632)	(107,801)	(234,931)	(7,691)	(NA)	(NA)
1958 <sup>2</sup> .....	56	63	41	12,432	67,848	10,058	19,179	50,754	118,555	95,207	214,872	8,928	84	92
	INDUSTRY 3432.—PLUMBING FITTINGS, BRASS GOODS													
1963.....	247	250	102	15,129	79,336	12,314	23,988	58,259	154,752	181,271	333,832	6,542	90	83
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	14,044	73,114	11,204	21,362	52,933	136,923	167,940	306,050	4,872	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,087	67,566	10,440	20,353	48,428	128,881	145,246	271,906	4,792	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,272	76,335	12,364	23,712	55,851	140,079	149,152	289,235	3,546	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,850	77,183	13,152	25,621	58,188	158,077	155,795	310,854	4,349	(NA)	(NA)
1958 <sup>2</sup> .....	250	254	84	14,663	66,937	12,140	22,993	50,425	120,560	131,530	250,326	3,564	91	83
	PLUMBING FIXTURES AND FITTINGS <sup>3</sup>													
1963.....	(NA)	331	147	26,140	147,498	21,147	41,489	108,632	294,611	277,467	568,728	12,405	(NA)	(NA)
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,542	130,671	18,792	37,040	95,350	248,687	263,015	515,591	10,304	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,734	116,248	17,444	34,303	85,585	216,366	224,026	450,359	9,788	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	25,101	131,009	20,297	39,851	97,415	250,821	240,280	485,848	8,573	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	27,634	145,887	22,433	45,463	109,915	291,709	263,596	545,785	12,040	(NA)	(NA)
1958 <sup>1</sup> .....	(NA)	317	125	27,095	134,785	22,198	42,172	101,179	239,115	226,737	465,198	12,492	(NA)	(NA)
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	27,691	128,726	22,684	41,889	97,325	222,328	204,331	426,659	15,888	87	87
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	30,362	134,926	25,285	47,877	104,374	267,048	212,241	479,319	16,928	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	33,729	149,821	28,752	56,578	117,941	288,201	155,059	443,260	11,836	(NA)	(NA)
1954 <sup>1</sup> .....	307	321	129	30,612	132,070	25,675	50,706	102,346	239,465	222,848	468,277	12,286	87	89
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	35,362	146,083	29,959	59,275	114,018	253,275	219,949	473,224	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	33,913	131,971	28,346	56,035	101,378	218,816	191,339	410,155	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	40,227	154,598	33,944	69,163	120,542	263,592	222,139	485,731	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	40,846	142,535	34,775	71,593	112,491	257,110	206,438	463,548	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	30,225	100,851	25,395	49,834	77,190	155,775	138,701	293,846	(NA)	(NA)	(NA)
1947 <sup>1</sup> .....	263	277	134	34,748	98,316	30,698	61,083	81,849	159,081	139,464	298,545	(NA)	90	92
1939 <sup>4</sup> .....	(NA)	247	(NA)	(NA)	(NA)	22,889	(NA)	28,686	66,743	45,648	112,391	(NA)	(NA)	(NA)
	INDUSTRY 3433.—HEATING EQUIPMENT, EXCEPT ELECTRIC													
1963.....	611	648	280	42,020	243,857	30,232	60,035	154,435	495,652	525,517	1,019,787	17,815	76	81
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	43,873	244,985	31,054	61,494	149,846	522,469	531,537	1,046,284	12,800	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	45,308	247,730	32,466	63,397	155,353	505,727	544,672	1,052,919	14,453	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	45,726	243,887	33,191	64,278	152,798	511,946	517,154	1,019,355	13,114	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	46,699	243,227	34,211	66,648	154,958	487,040	542,914	1,020,980	13,351	(NA)	(NA)
1958 <sup>2</sup> .....	642	672	303	44,680	222,681	32,433	63,178	142,329	432,799	470,630	912,878	13,415	81	80

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification. Accordingly, the data for 1958-1963 are not comparable with those for earlier years.

<sup>3</sup>The two industries shown above were a single industry in 1957 and earlier years. They are shown combined so that historical data may be presented.

<sup>4</sup>No comparable figures are available for earlier years.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3431.—METAL PLUMBING FIXTURES													
Total.....	81	45	11,011	68,162	8,833	17,501	50,373	139,859	96,196	234,896	5,863	12,432	118,555
Northeast.....	26	11	1,925	11,574	1,541	2,834	8,607	20,994	16,993	37,635	825	1,941	18,455
Pennsylvania.....	10	6	1,254	7,528	969	1,711	5,269	13,685	10,826	24,539	528	1,410	12,834
North Central.....	24	18	5,233	31,961	4,144	8,320	23,046	65,922	46,862	113,425	2,342	5,930	57,799
Ohio.....	7	6	1,798	10,390	1,451	2,579	7,610	26,275	19,730	47,016	584	(2)	(2)
Indiana.....	3	1	216	1,194	157	343	748	1,948	2,759	4,683	203	(2)	(2)
Illinois.....	7	6	723	4,740	509	1,013	3,002	10,398	6,011	16,573	347	677	7,624
South.....	16	8	2,836	18,207	2,295	4,668	13,740	41,523	23,427	63,311	1,664	} 4,561	42,301
West.....	15	8	1,017	6,420	853	1,679	4,980	11,420	8,914	20,525	1,032		
INDUSTRY 3432.—PLUMBING FITTINGS, BRASS GOODS													
Total.....	250	102	15,129	79,336	12,314	23,988	58,259	154,752	181,271	333,832	6,542	14,663	120,560
Northeast.....	76	28	2,421	11,427	1,962	3,866	8,028	23,164	27,550	51,019	716	2,309	18,887
Connecticut.....	11	6	455	2,045	384	767	1,593	3,950	6,211	10,198	49	563	5,258
Pennsylvania.....	15	5	543	2,308	469	911	1,825	3,663	4,907	8,475	282	586	2,868
North Central.....	90	44	7,164	40,047	5,718	11,066	28,887	76,495	87,291	161,538	2,880	6,563	54,108
Ohio.....	28	15	3,006	16,577	2,430	4,360	12,214	30,794	31,256	60,966	1,640	(2)	(2)
Indiana.....	5	4	728	3,507	639	1,416	2,873	11,650	13,559	25,004	221	(2)	(2)
Illinois.....	21	9	969	6,259	762	1,615	4,239	8,797	15,491	24,264	284	1,170	8,867
South.....	30	12	3,321	15,564	2,771	5,365	12,257	31,264	37,536	69,038	1,004	} 5,791	47,565
West.....	54	18	2,223	12,298	1,863	3,691	9,087	23,829	28,894	52,237	1,942		
INDUSTRY 3433.—HEATING EQUIPMENT, EXCEPT ELECTRIC													
Total.....	648	280	42,020	243,857	30,232	60,035	154,435	495,652	525,517	1,019,787	17,815	44,680	432,799
New England.....	47	16	1,644	9,344	1,199	2,503	5,969	16,431	17,802	34,071	669	1,344	11,438
Massachusetts.....	24	6	780	4,584	585	1,238	2,965	7,851	6,672	14,406	280	851	7,256
Connecticut.....	13	8	672	3,895	465	932	2,272	6,565	9,384	15,934	324	415	3,631
Middle Atlantic....	191	81	11,979	72,717	8,814	17,459	47,786	156,828	152,178	308,647	4,394	12,678	126,853
New York.....	62	22	3,624	22,223	2,676	5,358	14,798	44,806	46,370	92,495	1,070	4,206	39,909
New Jersey.....	53	21	2,630	15,406	1,867	3,677	9,497	31,641	34,984	66,964	1,149	2,812	23,960
Pennsylvania.....	76	38	5,725	35,088	4,271	8,424	23,491	80,381	70,824	149,188	2,175	5,660	62,984
East North Central..	182	94	17,360	105,320	11,604	23,025	62,435	207,690	231,622	437,902	7,382	18,567	188,494
Ohio.....	55	30	6,617	43,601	4,519	9,259	26,665	88,427	98,557	184,433	3,173	6,023	66,143
Indiana.....	26	17	3,113	18,828	2,016	3,827	9,893	37,770	48,730	85,817	2,137	2,459	22,402
Illinois.....	50	24	3,904	22,909	2,820	5,498	13,919	48,670	47,365	95,004	1,265	6,067	64,515
Michigan.....	35	12	1,665	8,091	922	1,862	4,915	14,671	20,206	37,218	418	1,706	13,165
Wisconsin.....	16	11	2,061	11,891	1,327	2,579	7,046	18,152	16,764	35,430	389	2,312	22,269
West North Central..	53	22	3,067	16,789	2,500	5,101	12,560	38,348	41,466	78,728	1,199	3,192	40,726
Missouri.....	24	9	1,070	5,777	752	1,465	3,433	10,351	11,016	21,484	263	(2)	(2)
South.....	72	32	5,153	23,512	4,009	7,852	15,060	45,385	48,778	94,831	3,524	5,348	34,262
Tennessee.....	9	8	1,686	7,804	1,264	2,253	4,761	13,877	17,987	33,094	348	1,972	13,256
Alabama.....	5	4	910	3,714	791	1,595	2,751	6,879	6,213	13,140	277	735	3,988
Texas.....	19	3	444	2,335	282	609	1,234	6,518	5,752	12,032	291	567	4,992
Mountain.....	10	1	113	322	91	167	271	810	1,285	2,138	19	} 3,551	31,026
Pacific.....	93	34	2,704	15,853	2,015	3,925	10,351	30,160	32,386	63,470	628		
California.....	71	28	2,440	14,357	1,820	3,561	9,331	27,477	30,313	58,766	554	2,860	26,565

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3431, Metal Plumbing Fixtures: New England—Massachusetts, 5 (20-99); Middle Atlantic—New York, 7 (20-99); New Jersey, 4 (557); East North Central—Michigan, 3 (500-999); Wisconsin, 3 (1,904); West North Central—Missouri, 1 (20-99); South Atlantic—Maryland, 3 (804); North Carolina, 1 (1-19); South Carolina, 1 (20-99); Georgia, 2 (20-99); Florida, 2 (1-19); East South Central—Kentucky, 2 (1,000-2,499); Tennessee, 2 (500-999); West South Central—Texas, 3 (226); Mountain—Colorado, 1 (1-19); Pacific—California, 14 (1,000-2,499).

SIC 3432, Plumbing Fittings, Brass Goods: New England—Massachusetts, 8 (100-249); Rhode Island, 2 (1-19); Middle Atlantic—New York, 35 (726); New Jersey, 5 (495); East North Central—Michigan, 16 (1,000-2,499); Wisconsin, 7 (482); West North Central—Minnesota, 2 (100-249); Iowa, 3 (174); Missouri, 5 (100-249); Kansas, 3 (20-99); South Atlantic—Delaware, 2 (250-499); Maryland, 2 (20-99); West Virginia, 2 (1,000-2,499); North Carolina, 1 (20-99); South Carolina, 2 (20-99); Georgia, 1 (100-249); Florida, 7 (20-45); East South Central—Kentucky, 2 (500-999); Alabama, 3 (20-99); West South Central—Arkansas, 1 (1-19); Texas, 7 (516); Mountain—Montana, 1 (1-19); Colorado, 2 (1-19); Pacific—Washington, 2 (1-19); Oregon, 1 (1-19); California, 47 (1,000-2,499); Hawaii, 1 (1-19).

SIC 3433, Heating Equipment, Except Electrical: New England—Maine, 2 (20-99); Vermont, 1 (1-19); Rhode Island, 7 (100-249); West North Central—Minnesota, 14 (250-499); Iowa, 5 (445); North Dakota, 1 (1-19); South Dakota, 2 (1-19); Nebraska, 2 (100-249); Kansas, 5 (1,174); South Atlantic—Maryland, 4 (100-249); Virginia, 6 (312); West Virginia, 1 (100-249); North Carolina, 4 (20-99); South Carolina, 1 (20-99); Georgia, 3 (441); Florida, 6 (20-99); East South Central—Kentucky, 6 (409); West South Central—Arkansas, 2 (250-499); Louisiana, 3 (1-19); Oklahoma, 3 (134); Mountain—Montana, 2 (1-19); Colorado, 2 (1-19); Arizona, 2 (1-19); Utah, 4 (20-99); Pacific—Washington, 12 (100-249); Oregon, 10 (20-99).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.



TABLE 3. Detailed Statistics: 1963

Item	Metal plumbing fixtures (SIC 3431)	Plumbing fittings, brass goods (SIC 3432)	Heating equipment, except electric (SIC 3433)
Primary product specialization ratio <sup>1</sup> .....	.84	.90	.76
Coverage ratio <sup>2</sup> .....	.91	.83	.81
Establishments, total.....number..	81	250	648
With 1 to 19 employees.....do...	36	148	368
With 20 to 99 employees.....do...	24	62	167
With 100 employees or more.....do...	21	40	113
Proprietors and working partners.....do...	27	80	187
All employees (average for the year).....do...	11,011	15,129	42,020
Payroll (all employees), total for year.....\$1,000..	68,162	79,336	243,857
Production workers:			
Average for the year.....number..	8,833	12,314	30,232
March.....do...	8,629	12,154	28,987
May.....do...	8,864	12,356	29,114
August.....do...	9,050	12,368	31,232
November.....do...	8,789	12,378	31,595
Man-hours.....1,000..	17,501	23,988	60,035
January-March.....do...	4,230	5,972	14,090
April-June.....do...	4,495	6,029	14,688
July-September.....do...	4,397	5,942	15,523
October-December.....do...	4,379	6,045	15,734
Wages.....\$1,000..	50,373	58,259	154,435
Cost of materials, etc., total.....do...	96,196	181,271	525,517
Materials, parts, containers, and supplies consumed.....do...	77,354	156,923	470,096
Cost of resales.....do...	12,559	15,303	44,330
Fuels consumed.....do...	3,587	1,129	3,921
Electric energy:			
Purchased:			
Quantity.....million kw.-hrs..	154	130	259
Cost.....\$1,000..	1,907	1,924	4,151
Generated less sold.....million kw.-hrs..	(D)	-	(D)
Contract work.....\$1,000..	789	6,007	3,019
Value of shipments (including resales), total.....do...	234,896	333,832	1,019,787
Value of resales.....do...	15,007	20,068	55,449
Value added by manufacture, adjusted.....do...	139,859	154,752	495,652
Manufacturers' inventories:			
Beginning of year, total.....do...	36,247	61,484	201,635
Finished products.....do...	19,570	26,253	89,248
Work-in-process.....do...	5,798	18,942	36,741
Materials, supplies, fuel, etc.....do...	10,879	16,289	75,646
End of year, total.....do...	37,380	64,736	204,222
Finished products.....do...	19,685	28,174	85,317
Work-in-process.....do...	6,842	19,212	42,054
Materials, supplies, fuel, etc.....do...	10,853	17,350	76,851
Expenditures for plant and equipment, total.....do...	5,943	7,074	19,281
New, total.....do...	5,863	6,542	17,815
New structures and additions to plant.....do...	531	1,700	5,409
New machinery and equipment.....do...	5,332	4,842	12,406
Used plant and equipment.....do...	80	532	1,466
Selected operating ratios:			
Payroll/Total employment.....	6,190	5,244	5,803
Production workers/Total employment.....	.80	.81	.72
Man-hours/Production workers.....	1,981	1,948	1,986
Production worker wages/Man-hours.....	2.88	2.43	2.57
Cost of materials and payrolls/Total value of shipments.....	.70	.78	.75
Cost of materials/Total value of shipments.....	.41	.54	.52
Adjusted value added/Total employment.....	12,702	10,229	11,796
Salaries and wages/Adjusted value added.....	.49	.51	.49

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3431.—METAL PLUMBING FIXTURES											
Establishments.....number..	81	18	10	8	13	11	8	7	4	2	-
All employees:											
Total.....do....	11,011	25	73	108	424	835	1,442	2,723	5,381	(D)	-
Payroll.....\$1,000..	68,162	162	444	520	1,966	5,264	7,875	17,923	34,008	(D)	-
Value added, adjusted.....do....	139,859	308	919	1,087	3,623	16,068	16,769	32,649	68,436	(D)	-
Value of shipments.....do....	234,896	716	2,720	2,539	7,885	26,123	30,335	55,869	108,709	(D)	-
Capital expenditures, new...do....	5,863	24	104	187	84	509	521	1,782	2,652	(D)	-
INDUSTRY 3432.—PLUMBING FITTINGS, BRASS GOODS											
Establishments.....number..	250	78	35	35	32	30	27	7	5	1	-
All employees:											
Total.....do....	15,129	131	234	483	992	2,060	4,151	2,241	4,837	(D)	-
Payroll.....\$1,000..	79,336	631	1,060	2,450	5,014	9,972	21,761	11,593	26,855	(D)	-
Value added, adjusted.....do....	154,752	1,267	2,143	5,569	11,282	18,437	45,744	21,169	49,141	(D)	-
Value of shipments.....do....	333,832	2,830	4,978	12,129	21,220	41,426	105,294	39,321	106,634	(D)	-
Capital expenditures, new...do....	6,542	71	76	145	512	695	1,231	312	3,500	(D)	-
INDUSTRY 3433.—HEATING EQUIPMENT, EXCEPT ELECTRIC											
Establishments.....number..	648	186	79	103	102	64	65	38	10	1	-
All employees:											
Total.....do....	42,020	335	539	1,441	3,300	4,582	10,778	12,995	8,050	(D)	-
Payroll.....\$1,000..	243,857	1,470	2,523	7,638	17,976	25,638	61,101	75,702	51,809	(D)	-
Value added, adjusted.....do....	495,652	3,423	4,676	14,899	32,456	49,798	129,829	152,217	108,354	(D)	-
Value of shipments.....do....	1,019,787	7,248	9,861	33,473	72,215	109,298	258,208	330,631	198,853	(D)	-
Capital expenditures, new...do....	17,815	1,927	148	377	1,176	1,158	4,313	5,172	3,544	(D)	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

<sup>1</sup>Includes capital expenditures for plants under construction but not in operation which constitute \$1-\$2 million of the total for the industry.

TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B+C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3431	Metal plumbing fixtures.....1963..	234,896	184,248	34,301	16,347	84	203,517	184,248	19,269	91
	.....1958..	214,872	164,787	30,493	19,592	84	180,006	164,787	15,219	92
3432	Plumbing fittings, brass goods...1963..	333,832	274,134	30,722	28,976	90	329,575	274,134	55,441	83
	.....1958..	250,326	215,210	21,475	13,641	91	259,485	215,210	44,275	83
3433	Heating equipment, except electric.....1963..	1,019,787	721,423	225,810	72,554	76	893,230	721,423	171,807	81
	.....1958..	912,878	677,918	168,599	66,361	81	836,974	677,918	159,056	80

Note: See Introduction for an explanation of terms used.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Plumbing fixtures (SIC 3431)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Heating equipment, except electric (SIC 3433)	Other industries
<b>PLUMBING FIXTURES INDUSTRY</b>					<b>HEATING EQUIPMENT, EXCEPT ELECTRIC, INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	234,896	(X)		Total shipments and receipts of the industry.....	(X)	1,019,787	(X)
34310	Metal plumbing fixtures.....	203,517	184,248	19,269		Primary products.....	893,230	721,423	171,807
	Secondary products.....	(X)	34,301	(X)		Oil burners, residential and industrial (sold separately) except parts.....	41,978	37,917	4,061
32610	Vitreous and semivitreous plumbing fixtures.....	(X)	(over 2)	(X)	34331	Warm air furnaces (except floor and wall), except parts.....	204,478	149,836	54,642
34320	Plumbing fixture fittings and trim (brass goods).....	(X)	(10-20)	(X)	34332	Cast iron heating boilers, radiators, and convectors, except parts.....	138,852	127,857	10,995
35663	Other mechanical power transmission equipment.....	(X)	(over 2)	(X)	34333	Domestic heating stoves (except electric), except parts.....	79,122	69,099	10,023
	Miscellaneous receipts.....	(X)	16,347	(X)	34334	Steel heating boilers (15 p.s.i. and under) except parts.....	70,269	64,317	5,952
	Resales.....	(X)	15,007	(X)	34336	Other heating equipment (except electric) and parts for non-electric heating equipment.....	317,330	234,669	82,661
	Other.....	(X)	1,340	(X)	34330	Heating equipment, n.s.k.....	41,201	37,728	3,473
	Listing of other industries with over \$2 million shipments of metal plumbing fixtures:					Secondary products.....	(X)	225,810	(X)
34310	3461 Metal stampings.....	(X)	(X)	9,304	33214	All other gray iron castings.....	(X)	3,203	(X)
	3639 Household appliances, n.e.c.....	(X)	(X)	(2-5)	34433	Steel power boilers, parts, and attachments (over 15 p.s.i. steam working pressure).....	(X)	18,625	(X)
					34443	Other sheet metal work.....	(X)	11,440	(X)
					34941	Metal valves for piping systems (except plumbing and heating valves).....	(X)	3,726	(X)
					34943	Plumbing and heating valves and specialties, except plumbers' brass goods.....	(X)	3,970	(X)
					35228	All other farm machinery and equipment.....	(X)	2,697	(X)
					35641	Industrial fans and blowers.....	(X)	6,838	(X)
					35851	Heat transfer equipment.....	(X)	77,568	(X)
					36312	Household ovens and ranges, equipment and parts, except electric..	(X)	10,004	(X)
					36392	Household water heaters, except electric.....	(X)	6,014	(X)
						Other secondary products.....	(X)	64,311	(X)
					19990	Ordinance and accessories, n.e.c.	(X)	(over 2)	(X)
					34293	Vacuum and insulated bottles, jugs, and chests.....	(X)	(2-5)	(X)
					36426	Other electric and nonelectric lighting equipment (including hand portable equipment) and parts and accessories.....	(X)	(over 2)	(X)
					37176	Parts and accessories for passenger cars, trucks and busses, shipped to other than motor vehicle manufacturers.....	(X)	(2-5)	(X)
						Miscellaneous receipts.....	(X)	72,554	(X)
						Contract and commission work.....	(X)	7,798	(X)
						Resales.....	(X)	55,449	(X)
						Installation work by manufacturing plant employees.....	(X)	1,230	(X)
						Scrap and salable refuse and miscellaneous repair work.....	(X)	5,153	(X)
						Other.....	(X)	2,924	(X)
<b>PLUMBING FITTINGS, BRASS GOODS, INDUSTRY</b>									
	Total shipments and receipts of the industry.....	(X)	333,832	(X)					
34320	Plumbing fixture fittings and trim (brass goods).....	329,575	274,134	55,441					
	Secondary products.....	(X)	30,722	(X)					
34295	Other hardware.....	(X)	3,079	(X)					
34941	Metal valves for piping systems (except plumbing and heating equipment).....	(X)	3,220	(X)					
34943	Plumbing and heating valves and specialties (except plumbers' brass goods).....	(X)	3,187	(X)					
	Other secondary products.....	(X)	21,256	(X)					
34510	Screw machine products.....	(X)	(over 2)	(X)					
34521	Bolts, nuts, and other standard industrial fasteners.....	(X)	(over 2)	(X)					
36393	Other household appliances and parts.....	(X)	(over 2)	(X)					
	Miscellaneous receipts.....	(X)	28,976	(X)					
	Contract and commission work....	(X)	1,420	(X)					
	Resales.....	(X)	20,068	(X)					
	Other.....	(X)	7,488	(X)					
	Listing of other industries with over \$2 million shipments of plumbing fixture fittings and trim:								
34320	3261 Vitreous plumbing fixtures.....	(X)	(X)	(2-5)					
	3352 Aluminum rolling and draw drawing.....	(X)	(X)	(2-5)					
	3429 Hardware, n.e.c.....	(X)	(X)	2,499					
	3431 Metal plumbing fixtures....	(X)	(X)	(10-50)					
	3461 Metal stampings.....	(X)	(X)	4,654					
	3494 Valves and pipe fittings....	(X)	(X)	10,814					
	3631 Household cooking equipment	(X)	(X)	(2-5)					

See footnotes at end of table.

TABLE 5B. **Industry-Product Analysis—Shipments by Product Class and Industry:**  
**1963—Continued**

Prod. class code	Class of products and miscellaneous receipts	All industries	Heating equipment, except electric (SIC 3433)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Heating equipment, except electric (SIC 3433)	Other industries
	HEATING EQUIPMENT, EXCEPT ELECTRIC INDUSTRY—Continued					HEATING EQUIPMENT, EXCEPT ELECTRIC INDUSTRY—Continued			
	Listing of other industries with over \$2 million shipments of each primary product class:					Listing of other industries with over \$2 million shipments of each primary product class—Continued			
34331	3621 Motors and generators.....	(X)	(X)	(over 2)	34335	3443 Boiler shop products.....	(X)	(X)	3,831
34332	3443 Boiler shop products.....	(X)	(X)	(2-5)					
	3585 Refrigeration machinery....	(X)	(X)	32,608	34336	3443 Boiler shop products.....	(X)	(X)	3,786
	3621 Motors and generators.....	(X)	(X)	(over 2)		3461 Metal stampings.....	(X)	(X)	3,270
	3631 Household cooking equipment	(X)	(X)	(over 2)		3531 Construction machinery.....	(X)	(X)	(2-5)
	3639 Household appliances, n.e.c.	(X)	(X)	(5-10)		3561 Pumps and compressors.....	(X)	(X)	(2-5)
34333	3585 Refrigeration machinery....	(X)	(X)	(5-10)		3564 Blowers and fans.....	(X)	(X)	8,692
34334	3585 Refrigeration machinery....	(X)	(X)	(over 2)		3585 Refrigeration machinery....	(X)	(X)	26,620
	3621 Household cooking equipment	(X)	(X)	4,529		3639 Household appliances, n.e.c.	(X)	(X)	13,248
						3731 Ship building and repairing	(X)	(X)	(over 2)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3431- --	METAL PLUMBING FIXTURES, TOTAL <sup>1</sup> .....	.....	(X)	203,517	(X)	180,006
	Enameled iron and metal plumbing fixtures:					
34310 11	As reported in the census of manufactures <sup>2</sup> .....	.....	(X)	195,472	(X)	168,259
	As reported on quarterly Form M34E.....	.....	(X)	202,272	(X)	180,153
34310 02	Drinking fountains (cast iron and other metals, concrete and composition).....	1,000 units...	42	(NA)	55	(NA)
	Lavatories:					
34310 04	Cast iron.....	...do.....	1,882	(NA)	1,301	(NA)
34310 06	Steel.....	...do.....	637	(NA)	271	(NA)
34310 07	Urinals (cast iron, other metals and glazed earthenware).....	...do.....	12	(NA)	(NA)	(NA)
	Kitchen sinks:					
34310 08	Cast iron.....	...do.....	744	(NA)	818	(NA)
	Steel:					
34310 10	Porcelain enameled.....	...do.....	1,800	(NA)	979	(NA)
34310 12	Stainless.....	...do.....	924	(NA)	332	(NA)
34310 14	Other metals, vitreous china, and glazed earthenware.....	...do.....	3	(NA)	2	(NA)
34310 16	Wash sinks (cast iron, steel, aluminum, concrete, and composition).....	...do.....	19	(NA)	24	(NA)
	Service sinks:					
34310 17	Cast iron.....	...do.....	100	(NA)	84	(NA)
34310 19	Other metals, vitreous china, and glazed earthenware.....	...do.....	22	(NA)	20	(NA)
	Sink and laundry tray combinations:					
34310 21	Cast iron.....	...do.....	43	(NA)	57	(NA)
34310 23	Steel.....	...do.....	9	(NA)	25	(NA)
34310 24	Laundry trays (vitreous china, cast iron, steel, and glazed earthenware).....	...do.....	53	(NA)	77	(NA)
	Bathtubs:					
34310 25	Cast iron.....	...do.....	1,588	(NA)	1,464	(NA)
34310 27	Steel.....	...do.....	1,017	(NA)	697	(NA)
34310 28	Shower receptors, sold separately (steel, other metals, concrete and composition).....	...do.....	15	(NA)	12	(NA)
	Showerstalls, including receptors:					
34310 29	Steel.....	...do.....	176	(NA)	179	(NA)
34310 31	Aluminum, Monel, and other metal, concrete, and composition.....	...do.....			2	(NA)
34310 98	Other metal plumbing fixtures.....	.....	(X)	8,045	(X)	11,747
32610 11	VITREOUS AND SEMIVITREOUS (EARTHENWARE) PLUMBING FIXTURES					
	Reported in the census of manufactures.....	.....	(NA)	138,174	(NA)	119,226
	Reported on quarterly Form M34E <sup>3</sup> .....	.....	(NA)	414,557	(NA)	4124,522
	Drinking fountains.....	Units.....	50,978	(NA)	68,978	(NA)
	Lavatories.....	...do.....	5,007,332	(NA)	2,179,706	(NA)
	Water closet bowls:					
	Siphon jets.....	...do.....	1,022,291	(NA)	484,436	(NA)
	Washdown.....	...do.....	1,662,971	(NA)	1,813,522	(NA)
	Reverse trap.....	...do.....	2,734,725	(NA)	1,938,405	(NA)
	Flush tanks.....	...do.....	4,600,563	(NA)	3,639,123	(NA)
	Urinals.....	...do.....	191,926	(NA)	157,186	(NA)
3432- --	PLUMBING FIXTURE FITTINGS AND TRIM (BRASS GOODS), TOTAL.....	.....	(X)	329,575	(X)	259,485
	Bath and shower fittings:					
34320 01	Single control bath and shower fittings.....	1,000 units...	632	7,477	5,125	34,251
	Other than single control fittings:					
34320 03	Bathtub fillers.....	...do.....	1,416	4,988		
34320 05	Bathtub and shower combinations.....	...do.....	2,022	16,400		
34320 07	Shower fittings (with shower heads).....	...do.....	953	6,419		
34320 18	Bath drains and overflows.....	...do.....	3,152	12,077	2,764	10,858
34320 19	Other bath and shower fittings, including single bath faucets, shower heads and pop-up drains sold separately, etc.....	...do.....	3,746	9,451	( <sup>5</sup> )	( <sup>5</sup> )

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3432- --	PLUMBING FIXTURE FITTINGS AND TRIM(BRASS GOODS)—Continued					
	Laboratory fittings:					
	Combination 4" center-set fittings (with or without pop-up drains):					
34320 20	Single control type.....	1,000 units...	792	8,432	} 3,113	18,247
34320 22	Other type.....	...do.....	2,629	14,983		
34320 23	Other combination fittings (with or without pop-up drains).....	...do.....	1,824	12,725	1,316	11,386
34320 27	Single lavatory faucets (compression).....	...do.....	1,484	2,861	2,837	4,647
34320 29	Other lavatory fittings, including pop-up drains sold separately	...do.....	2,630	4,880	( <sup>5</sup> )	( <sup>5</sup> )
	Sink fittings:					
	Deck-type combination sink faucets:					
34320 30	Single control type.....	...do.....	1,296	15,507	} 3,386	25,957
34320 32	Other type.....	...do.....	3,170	19,484		
34320 33	Other combination sink faucets.....	...do.....	1,336	7,900	1,179	7,274
34320 35	Single sink faucets.....	...do.....	2,327	2,340	2,747	3,603
34320 39	Other sink fittings, including sink strainers sold separately...	...do.....	8,330	9,648	( <sup>5</sup> )	( <sup>3</sup> )
	Miscellaneous items:					
34320 47	Compression stops, including those with drains.....	...do.....	14,029	9,957	14,056	8,360
34320 48	Sediment, lawn, hose bibb and sill faucets.....	...do.....	13,659	10,297	( <sup>5</sup> )	( <sup>5</sup> )
34320 44	Double laundry-tray faucets.....	...do.....	604	1,991	632	2,253
34320 45	P-traps.....	...do.....	7,866	9,956	5,673	7,606
34320 46	S-traps.....	...do.....	2,673	4,407	1,539	2,636
34320 51	Lawn hose nozzles and lawn sprinklers.....	...do.....	} (X)	26,556	} (X)	<sup>5</sup> 90,771
34320 53	Water closet tank flushing controls.....	...do.....		20,007		
34320 98	Other miscellaneous items.....	...do.....		70,075		
34320 00	Plumbing fixture fittings and trim, n.s.k.....	...do.....	(X)	20,757	(X)	31,636
3433- --	HEATING EQUIPMENT, EXCEPT ELECTRIC, TOTAL.....	...do.....	(X)	893,230	(X)	836,974
34331 --	Oil burners, residential, commercial and industrial (sold separately), except parts.....	...do.....	(X)	41,978	(X)	46,601
34331 10	Reported in the census of manufactures.....	...do.....	(X)	36,808	(X)	39,835
	Reported on Annual Form MA-34N.....	Units.....	<sup>6</sup> 423,566	34,667	<sup>6</sup> 414,658	37,227
	Residential (sold separately):					
34331 13	High-pressure atomizing.....	...do.....	} 369,703	18,930	} 365,323	20,747
34331 11	Low-pressure atomizing.....	...do.....				
34331 15	Pot natural draft vaporizing.....	...do.....	} 10,778	720	} 2,387	93
34331 17	Pot mechanical draft vaporizing.....	...do.....				
34331 19	Rotary (atomizing and vaporizing).....	...do.....	1,483	194	1,885	220
	Commercial and industrial (sold separately): <sup>7</sup>					
34331 25	Low-pressure atomizing.....	...do.....	20,439	4,960	12,059	2,951
34331 27	High-pressure atomizing.....	...do.....	17,066	5,334	13,619	4,300
34331 29	Rotary atomizing.....	...do.....	4,097	4,529	6,565	7,827
	Furnace-burner units:					
	Residential:					
34331 51	High-pressure atomizing.....	...do.....	73,975	(X)	131,014	(X)
34331 59	All other.....	...do.....	2,687	(X)	13,862	(X)
34331 65	Commercial and industrial.....	...do.....	(D)	(X)	(D)	(X)
	Boiler-burner units:					
	Residential:					
34331 31	High-pressure atomizing.....	Units.....	49,746	(X)	48,568	(X)
34331 39	All other.....	...do.....	10,065	(X)	14,121	(X)
34331 45	Commercial and industrial.....	...do.....	3,188	(X)	2,665	(X)
34331 71	Oil burners, range type (sleeve type and pot type for use in water heaters, stoves, ranges, etc.).....	...do.....	(NA)	2,431	(NA)	2,136
34331 00	Oil burners, n.s.k.....	...do.....	(X)	2,757	(X)	4,630

See footnotes at end of table.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3433- --	HEATING EQUIPMENT, EXCEPT ELECTRIC—Continued					
34332 --	Warm air furnaces (except floor and wall), except parts:					
	Reported in the census of manufactures.....	Units.....	(X)	204,478	(X)	232,530
	Reported on Annual Form MA-34N.....		1,384,459	197,510	1,234,685	224,244
	Forced air type (cast iron and steel):					
	Solid fuel (coal, coke, and wood):					
34332 11, 21	150,000 BTU bonnet output and under.....	...do.....	11,380	2,856	13,758	3,862
34332 12, 22	Over 150,000 BTU bonnet output.....	...do.....	867	417		
	Oil:					
34332 13, 23	150,000 BTU bonnet output and under.....	...do.....	240,633	47,565	328,959	78,239
34332 14, 24	Over 150,000 BTU bonnet output.....	...do.....	18,362	8,275		
	Gas:					
34332 15, 25	150,000 BTU bonnet output and under.....	...do.....	1,067,896	123,242	832,520	133,161
34332 16, 26	Over 150,000 BTU bonnet output.....	...do.....	25,437	12,212		
	Gravity air-flow type (cast iron and steel):					
34332 31	Solid fuel.....	...do.....	9,517	1,857	26,467	4,994
34332 35	Oil.....	...do.....	204	43	2,455	635
34332 37	Gas.....	...do.....	10,163	1,041	30,526	3,353
34333 --	Cast iron heating boilers, radiators, and convectors, except parts		(X)	138,852	(X)	121,491
	Cast iron boilers:					
34333 20	Reported on Annual Form MA-34N.....	1,000 lbs.....	188,497	73,741	215,763	63,560
	Reported in the census of manufacturers.....	...do.....	188,497	73,741	196,455	58,624
34333 11	Oil.....	...do.....	63,687	22,725	93,112	24,019
34333 13	Gas.....	...do.....	100,495	42,820	84,306	29,098
34333 15	Solid fuel.....	...do.....	24,315	8,196	19,037	5,507
	Radiators and convectors:					
	Cast iron:					
34333 30	Reported in the census of manufacturers.....		(X)	12,551	(NA)	18,156
34333 50	Reported on Annual Form MA-34N.....	1,000 sq. ft. of radiation..	15,925	12,469	22,350	16,754
34333 81	Steel, residential and industrial.....	...do.....	19,700	7,820	17,734	8,601
	Aluminum:					
34333 72	Residential.....	...do.....	63,498	22,674	(NA)	31,569
34333 74	Industrial and special types.....	...do.....	(NA)	17,127		
34333 79	Other nonferrous metal.....	...do.....	(X)	4,939	(X)	4,541
34333 00	Heating boilers, radiators, and convectors, n.s.k.....					
34334 --	Domestic heating stoves (except electric), except parts:					
	Reported in the census of manufactures.....	Units.....	(X)	79,122	(X)	69,774
	Reported on Annual Form MA-34N.....		2,306,899	76,068	2,604,360	73,782
	Gas:					
34334 11	Vented circulators.....	...do.....	410,219	28,116	436,535	25,793
34334 13	Unvented circulators.....	...do.....	667,448	8,661	711,499	10,280
34334 15	Radiants.....	...do.....	184,468	2,425	235,899	2,771
34334 17	All other (including laundry stoves).....	...do.....	82,483	1,556	101,035	797
34334 27	Wood (sheet-metal airtight type).....	...do.....	279,497	1,437	342,140	2,160
	Coal and wood (other than sheet-metal airtight types):					
34334 31	Circulators (standard and magazine types).....	...do.....	78,969	4,844	80,077	4,543
34334 33	Magazine radiants.....	...do.....	60,994	1,956	62,346	2,236
34334 35	Oaks and hot blasts.....	...do.....	21,473	435	23,872	501
34334 37	Laundry stoves (without cored fire pots).....	...do.....	34,306	410	39,905	459
34334 39	All other (including kitchen heaters, caboose, schoolroom, woodbox, etc.).....	...do.....	73,996	1,903	104,318	2,159

See footnotes at end of table.

TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3433- --	HEATING EQUIPMENT, EXCEPT ELECTRIC—Continued					
	Kerosene, gasoline, and fuel oil:					
34334 41	Flue-connected circulators and radiant circulators with vaporizing pot-type burners.....	Units.....	220,738	22,261	193,701	14,412
34334 43	Flue-connected radiant heaters (without casing) and trailer heaters, equipped with vaporizing pot-type burners.....	do.....				
34334 45	Flue-connected heater equipped with sleeve burner.....	do.....				
34334 47	Unvented portable kerosene heaters.....	do.....	192,308	2,064	213,518	2,506
34335 --	Steel heating boilers (except electric), except parts.....		(X)	70,269	(X)	62,826
	Steel heating boilers (15p.s.i. steam working pressure and under, and all hot water boilers):					
34335 12	294 sq. ft. of heating surface or less.....	Units.....	114,275	36,910	77,476	28,384
	Over 294 sq. ft. of heating surface:					
34335 21	Horizontal fire box.....	do.....	1,621	7,143	9,063	14,711
34335 31	Scotch type.....	do.....	2,856	16,144		
34335 43	Other.....	do.....	(NA)	7,853		
34335 00	Steel heating boilers, n.s.k.....		(X)	2,214	(X)	1,768
34336 --	Other heating equipment, except electric, including parts.....		(X)	317,330	(X)	268,037
	Gas burners (for furnaces, boilers, water heaters, etc.):					
34336 12	Residential, commercial and industrial, sold separately (except gas conversion):					
	Quantity reported.....	Units.....	69,903	11,194	(X)	9,055
	Quantity not reported.....		(X)	3,706		
34336 14	Gas conversion burners, residential, commercial, and industrial.....	Units.....	105,913	10,197	135,365	12,628
34336 18	Parts and attachments for gas burners (sold separately).....		(X)	9,106	(X)	4,405
	Floor and wall furnaces:					
34336 19	Reported in the census of manufactures.....		(X)	36,418	(X)	28,963
	Reported on Annual Form MA-34N.....	Units.....	525,994	34,242	494,505	32,306
34336 21	Oil floor furnaces.....	do.....	10,544	1,522	15,828	1,739
34336 23	Gas floor furnaces.....	do.....	81,030	5,400	98,541	7,074
34336 25	Oil wall furnaces.....	do.....	13,422	1,320	24,681	2,599
34336 27	Gas wall furnaces.....	do.....	420,998	26,000	355,455	20,894
	Unit heaters:					
	Gas-fired:					
34336 33	Reported in the census of manufactures.....	do.....	(X)	20,969	(X)	847,912
	Reported on Annual Form MA-34N.....	Units.....	139,566	19,955	(NA)	20,570
34336 32	Centrifugal fan type.....	do.....	7,671	1,585	(NA)	4,153
34336 37	Propeller fan type.....	do.....	131,895	18,370	(NA)	16,417
	Steam or hot water heating elements:					
34336 34	Reported in the census of manufactures.....		(X)	26,088	(X)	(8)
	Reported on quarterly Form M35H.....		(X)	26,009	(X)	23,137
34336 31	Centrifugal fan type.....		(X)	13,747	(X)	11,746
34336 36	Propeller fan type.....		(X)	12,262	(X)	11,391
34336 35	Heavy-duty forced warm air type (over 400,000 BTU/hr.).....	Units.....	(NA)	2,677	(NA)	(NA)
	Duct furnaces:					
34336 39	Reported in the census of manufactures.....		(X)	6,044	(X)	(NA)
	Reported on Annual Form MA-34N.....	Units.....	32,794	5,871	(NA)	(NA)
	Heat transfer coils:					
34336 40	Reported in the census of manufactures.....		(X)	9,736	(X)	8,075
	Reported on quarterly Form M35H.....		(X)	9,250	(X)	8,437
34336 41	Copper or aluminum.....		(X)	7,857	(X)	8,160
34336 42	All other.....		(X)	1,393	(X)	277
	Range boilers, expansion tanks and hot water storage tanks:					
34336 52	Reported in the census of manufactures.....		(X)	9,015	(X)	9,462
	Reported on Annual Form MA-34N.....	Units.....	275,861	8,838	322,722	9,430
34336 51	Range boilers.....	do.....	33,130	804	(NA)	9,430
34336 53	Expansion tanks (including basement tanks).....	do.....	207,912	2,622		
34336 55	Hot water storage tanks.....	do.....	34,819	5,412		

See footnotes at end of table.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3433- --	HEATING EQUIPMENT, EXCEPT ELECTRIC—Continued					
34336 --	Other heating equipment, except electric, including parts—Continued					
34336 54	Mechanical stokers: Reported in the census of manufactures..... Reported on Annual Form MA-34N.....	Units.....	(X) 8,210	9,293 9,547	(X) 16,005	9,328 (NA)
34336 56	Class 1 (capacity under 61 pounds of coal per hour): Bituminous.....	...do.....	2,317	483	4,797	(NA)
34336 57	Anthracite: Conversion stokers <sup>9</sup> .....	...do.....	118	42	626	(NA)
34336 62	Integral units <sup>10</sup> .....	...do.....	4,121	2,470	7,357	(NA)
34336 63	Class 2 (capacity 61 to 100 pounds of coal per hour): Bituminous.....	...do.....	409	159	766	(NA)
34336 64	Anthracite.....	...do.....	63	49	198	(NA)
34336 65	Class 3 (capacity 100 to 300 pounds of coal per hour).....	...do.....	669	452	1,346	(NA)
34336 66	Class 4 (capacity 301 to 1,200 pounds of coal per hour).....	...do.....	309	387	679	(NA)
34336 67	Class 5 (capacity 1,201 pounds of coal per hour and over): Installed under fire-tube boilers.....	...do.....	29	201	66	(NA)
34336 68	Installed under water-tube boilers.....	...do.....	175	5,304	170	(NA)
34336 59	Parts for unit heaters and unit ventilators: Reported in the census of manufactures..... Reported on quarterly Form M35H.....	.....	(X) (X)	2,252 2,048	(X) (X)	( <sup>11</sup> ) (NA)
34336 60	Unit ventilators: Reported in the census of manufactures..... Reported on quarterly Form M35H.....	.....	(X) (X)	27,261 25,984	(X) (X)	29,903 28,879
34336 61	Tanks for water heaters (sold separately).....	Units.....	250,381	5,385	779,429	15,413
34336 73	Parts and attachments for heating equipment (sold separately): For warm air furnaces.....	.....	(X)	17,585	(X)	11,915
34336 74	For cast iron and steel heating boilers.....	.....	(X)	15,512	(X)	11,037
34336 83	For mechanical stokers.....	.....	(X)	3,045	(X)	5,154
34336 85	For oil burners.....	.....	(X)	14,565	(X)	9,403
34336 98	Other heating equipment, except electric (including incinerators, solar heaters, and circulating fireplace heaters) and other parts for heating equipment, except electric (sold separately).....	.....	(X)	60,367	(X)	1134,991
34336 00	Other heating equipment, n.s.k.....	.....	(X)	16,915	(X)	20,390
34330 00	Heating equipment, n.s.k.....	.....	(X)	41,201	(X)	35,715

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k Not specified by kind.

<sup>1</sup>The quantity data for plumbing fixtures were obtained from Census Quarterly Survey M34E. In this survey it is necessary to combine certain metal fixtures with fixtures made of other materials such as vitreous china, concrete, etc. Accordingly the quantity data do not relate exactly to the value figures shown for enameled iron and metal plumbing fixtures.

<sup>2</sup>Differs from value of shipments of metal plumbing fixtures reported in the Census Quarterly Survey due to different methods of reporting values in the two surveys.

<sup>3</sup>The quantity data for vitreous china plumbing fixtures were obtained from the Census Quarterly Survey M34E. No separate quantity data for vitreous and semivitreous sinks, laundry trays, and other plumbing fixtures are available since these items were combined, in the quarterly survey, with similar items made of other materials.

<sup>4</sup>Represents vitreous china only. In addition, shipments of \$2,398 thousand and \$2,236 thousand were reported for 1963 and 1958, respectively, for plumbing fixtures made of glazed earthenware, concrete, and composition.

<sup>5</sup>For 1958, product codes 34320, 19, 29, 39, and 48 are included with product code 34320 98.

<sup>6</sup>Excludes furnace-burner and boiler-burner units, product codes 3433151, 59, 65, 31, 39, and 45. The total number of oil burners including such units is 563,227 in 1963 and 624,888 in 1958.

<sup>7</sup>Commercial and industrial burners are those with consumption rates of 6 gallon per hour or more.

<sup>8</sup>In 1958, the value of steam or hot water heating elements were included with the value for gas-fired unit heaters.

<sup>9</sup>Conversion stoker—a conversion stoker is a mechanical stoker which may be installed in any of the common types of furnaces or boilers.

<sup>10</sup>Integral unit—an integral unit consists of a boiler or furnace, an automatic coal-feeding mechanism, accessories, and usually a metal enclosure, the whole assembly having been designed as a complete, compact and coordinated heating unit.

<sup>11</sup>Parts for unit heaters and unit ventilators are included with other heating equipment, except electric, and parts for other heating equipment, except electric, code 3433698 for 1958.

**TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
343--	Plumbing and heating, except electric.....1963..	129	96
	1958..	107	103
3431-	Metal plumbing fixtures.....1963..	136	72
	1958..	104	83
3432-	Plumbing fixture fittings and trim (brass goods)...1963..	167	93
	1958..	123	99
3433-	Heating equipment, except electric <sup>1</sup> .....1963..	116	105
	1958..	103	110
34331	Oil burners, residential, commercial and industrial (sold separately), except parts.....1963..	89	86
	1958..	91	93
34332	Warm air furnaces (except floor and wall), except parts.....1963..	113	81
	1958..	105	100
34333	Cast iron heating boilers, radiators, and convectors, except parts... ..1963..	98	135
	1958..	106	115
34334	Domestic heating stoves (except electric), except parts.....1963..	84	136
	1958..	88	120
34335	Steel heating boilers (except electric), except parts.... ..1963..	103	129
	1958..	83	142

<sup>1</sup>Adjusted to include product class 34336 (other heating equipment, except electric, including parts) and heating equipment, n.s.k.

**TABLE 6C. Product Classes—Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
34310	Metal plumbing fixtures.....	203,517	193,121	181,053	184,465	204,403	180,006	207,236	126,912
34320	Plumbing fixture fittings and trim (brass goods).....	329,575	290,809	275,204	284,690	315,945	259,485	212,404	159,687
3433-	Heating equipment, except electric.....	893,230	838,016	811,716	818,983	876,856	836,974	772,519	(NA)
34331	Oil burners, residential and industrial (sold separately), except parts.....	41,978	(S)	(S)	51,293	55,345	46,601	54,805	108,643
34332	Warm air furnaces (except floor and wall), except parts .....	204,478	<sup>2</sup> 189,347	<sup>2</sup> 189,874	<sup>2</sup> 207,131	<sup>2</sup> 243,034	232,530	222,500	148,597
34333	Cast iron heating boilers, radiators, and convectors, except parts.....	138,852	116,854	110,662	115,095	127,367	121,491	104,210	87,730
34334	Domestic heating stoves (except electric), except parts.....	79,122	<sup>2</sup> 64,902	<sup>2</sup> 63,639	<sup>2</sup> 66,599	<sup>2</sup> 79,461	69,774	70,080	146,321
34335	Steel heating boilers (15 p.s.i. and under), except parts.....	70,269	74,686	73,089	61,092	67,321	62,826	53,160	43,534
34336	Other heating equipment (except electric) and parts for nonelectric heating equipment.....	317,330	279,059	262,248	267,651	264,484	268,037	267,764	(NA)
34330	Heating equipment, except electric, n.s.k..	41,201	(S)	(S)	(50,122)	(39,844)	35,715	-	-

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Source: Current Industrial Reports Series M34N "Heating and Cooking Equipment."



TABLE 6D. **Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>			1963 <sup>1</sup>			1963 <sup>1</sup>	1958
OIL BURNERS, RESIDENTIAL AND INDUSTRIAL (SOLD SEPARATELY) EXCEPT PARTS (34331)			CAST IRON HEATING BOILERS, RADIATORS, AND CONVECTORS, EXCEPT PARTS (34333)—			STEEL HEATING BOILERS (15 p.s.i. AND UNDER) EXCEPT PARTS (34335)—		
United States, total....	41,978		United States, total....	138,852		Continued		
New England.....	4,624		New England.....	15,042		East North Central.....	14,510	17,337
Connecticut.....	3,378		Massachusetts.....	8,481		All other divisions.....	9,844	(2)
Middle Atlantic.....	11,732		Middle Atlantic.....	93,923		California.....	6,832	4,295
New York.....	6,360		New York.....	40,124		OTHER HEATING EQUIPMENT (EXCEPT ELECTRIC) AND PARTS FOR NONELECTRIC HEATING EQUIPMENT (34336)		
New Jersey.....	3,107		New Jersey.....	15,364		United States, total....	317,330	268,037
Pennsylvania.....	2,265		Pennsylvania.....	38,435		New England.....	11,532	5,352
North Central.....	20,949		North Central.....	27,442		Massachusetts.....	5,506	3,240
Ohio.....	7,672		Indiana.....	18,293		Rhode Island.....	2,480	(2)
Illinois.....	7,420		South and West.....	2,445		Connecticut.....	3,546	(2)
South and West.....	4,673		DOMESTIC HEATING STOVES (EXCEPT ELECTRIC), EXCEPT PARTS (34334)			Middle Atlantic.....	67,990	65,502
California.....	3,868		United States, total....	79,122	69,774	New York.....	17,510	16,357
WARM AIR FURNACES (EXCEPT FLOOR AND WALL) EXCEPT PARTS (34332)			East North Central.....	31,210	31,499	New Jersey.....	12,312	9,280
United States, total....	204,478	232,530	Ohio.....	4,899	4,162	Pennsylvania.....	38,168	39,865
Northeast.....	31,775	(2)	Illinois.....	16,021	17,562	East North Central.....	155,421	130,366
New York.....	11,963	16,261	West North Central.....	16,833	7,086	Ohio.....	53,468	27,059
East North Central.....	113,285	121,583	South Atlantic.....	5,778	5,869	Indiana.....	19,567	10,386
Ohio.....	69,435	65,556	Georgia.....	2,688	(2)	Illinois.....	44,232	49,993
Indiana.....	16,630	17,842	East South Central.....	17,465	16,922	Michigan.....	10,471	12,282
Illinois.....	6,177	15,040	Tennessee.....	7,411	7,699	Wisconsin.....	27,683	30,646
Michigan.....	12,159	13,011	Alabama.....	7,009	5,315	West North Central.....	16,576	17,516
Wisconsin.....	8,884	10,134	All other divisions.....	7,836	(2)	Minnesota.....	4,599	2,783
West North Central.....	19,513	37,272	STEEL HEATING BOILERS (15 p.s.i. AND UNDER) EXCEPT PARTS (34335)			Missouri.....	2,577	3,990
South.....	15,673	14,257	United States, total....	70,269	62,826	Kansas.....	5,780	6,434
West.....	24,232	(2)	Middle Atlantic.....	45,915	39,304	South Atlantic.....	5,527	8,290
California.....	22,942	21,428	New York.....	4,371	6,632	East South Central.....	16,315	11,692
			New Jersey.....	8,843	3,636	Tennessee.....	11,757	8,912
			Pennsylvania.....	32,701	29,036	West South Central.....	13,199	6,308
						Texas.....	5,646	3,275
						Mountain.....	2,533	(2)
						Utah.....	2,046	(2)
						Pacific.....	28,237	(2)
						California.....	26,315	22,192

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million reported.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 34331, Massachusetts, Indiana, and Wisconsin; 34332, New Jersey, Pennsylvania, Minnesota, Iowa, Missouri, Kansas, Tennessee, Oklahoma, and Texas; 34333, Connecticut, Ohio, and Illinois; 34334, Connecticut, Indiana, Michigan, Wisconsin, Missouri, Kansas, Virginia, West Virginia, Kentucky, and Texas; 34335, Ohio, Indiana, Illinois, Michigan, and Kentucky; 34336, Iowa, Nebraska, Maryland, Georgia, Kentucky, Alabama, Arkansas, Oklahoma, and Washington.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3431.—METAL PLUMBING FIXTURES			
	Materials, parts, containers, and supplies, total.....		(X)	77,354	(X)	73,354
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	897	178	405	76
331012	Sheet and strip.....	do.....	55,738	8,681	69,166	11,028
331013	Plates.....	do.....	2,150	426	899	134
331019	All other carbon steel mill shapes and forms.....	do.....			143	48
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	do.....	1,117	148	3,299	3,954
331029	All other alloy steel mill shapes and forms.....	do.....	-	-		
331031	Stainless steel mill shapes and forms.....	do.....	4,774	6,458		
	Copper and copper base alloy:					
335790	Insulated wire and cable.....	1,000 lbs. copper content.	(D)	(D)	(NA)	(NA)
335102	Rod, bar, and mechanical wire.....	1,000 lbs.....	2,866	1,390	3,545	1,583
335123	Plate, sheet, and strip.....	do.....				
335127	Pipe and tube.....	do.....				
	Aluminum and aluminum base alloy:					
335202	Sheet, plate, and foil.....	do.....	(D)	(D)	208	149
335205	Extruded shapes, rod, pipe, etc.....	do.....	(D)	(D)		
335209	All other aluminum mill shapes and forms (wire, rolled rod, etc.).....	do.....	(D)	(D)		
	Primary metals:					
331051	Pig iron.....	Short tons.....	75,799	4,765	175,339	11,502
333401	Aluminum and aluminum-base alloy refinery shapes, (ingot, slugs, etc.).....	do.....	(D)	(D)	(NA)	(NA)
333122	Copper and copper-base alloy refinery shapes.....	do.....	(D)	(D)	(NA)	(NA)
	Scrap (excluding home scrap):					
999811	Iron and steel.....	do.....	217,439	7,653	112,430	4,649
	Castings (rough and semi-finished): <sup>1</sup>					
332011	Iron (gray and malleable).....	do.....	5,123	1,655	(D)	(D)
332300	Steel.....	do.....	(D)	(D)	(NA)	(NA)
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	(D)	(D)	(NA)	(NA)
336200	Copper and copper-base alloy.....	do.....	(D)	(D)	126	91
339100	Iron and steel forgings.....	Short tons.....	(D)	(D)	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	42,428	(X)	36,971
976000	Materials, n.s.k. <sup>2</sup> .....		(X)	3,572	(X)	3,103
			INDUSTRY 3432.—PLUMBING FITTINGS, BRASS GOODS			
	Materials, parts, containers, and supplies, total.....		(X)	156,923	(X)	120,065
	Mill shapes and forms (except castings):					
	Carbon steel:					
331012	Sheet and strip.....	Short tons.....	4,285	844	2,471	471
331013	Plates.....	do.....	1,105	190		
331001	All other carbon steel mill shapes and forms.....	do.....	8,240	2,157	277	73
331019						
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	do.....	346	149	-	-
331029	All other alloy steel mill shapes and forms.....	do.....			49	46
331031	Stainless steel mill shapes and forms.....	do.....	2,019	1,890	783	679
	Copper and copper base alloy:					
335790	Insulated wire and cable.....	1,000 lbs. copper content.	(D)	(D)	(NA)	(NA)
335102	Rod, bar, and mechanical wire.....	1,000 lbs.....	47,312	21,066	55,765	22,785
335123	Plate, sheet, and strip.....	do.....	10,218	4,446		
335127	Pipe and tube.....	do.....	32,954	15,833		
	Aluminum and aluminum base alloy:					
335202	Sheet, plate, and foil.....	do.....	(3)	(3)	434	203
335205	Extruded shapes, rod, bar, etc.....	do.....	675	405		
335209	All other aluminum mill shapes and forms (wire, rolled, bar, etc.).....	do.....	3391	3148		

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3432.—PLUMBING FITTINGS, BRASS GOODS—Continued			
331051	Primary metals:					
333401	Pig iron.....	Short tons.....	(D)	(D)	(NA)	(NA)
333122	Aluminum and aluminum-base alloy refinery shapes.....	..do.....	(D)	(D)	(NA)	(NA)
	Copper and copper-base alloy refinery shapes.....	..do.....	30,480	13,671	18,391	8,230
999811	Scrap (excluding home scrap):					
999808	Iron and steel.....	..do.....	-	-	10,297	486
999812	Aluminum and aluminum-base alloy.....	..do.....	(D)	(D)	(NA)	(NA)
	Copper and copper-base alloy.....	..do.....	6,838	3,378	14,702	6,257
332011	Castings (rough and semi-finished): <sup>4</sup>					
332300	Iron (gray and malleable).....	..do.....	3,993	1,074	1,888	475
336100	Steel.....	..do.....	(D)	(D)	(NA)	(NA)
336200	Aluminum and aluminum-base alloy.....	1,000 lbs.....	(D)	(D)	121	117
	Copper and copper-base alloy.....	..do.....	19,390	10,116	19,906	10,656
339100	Iron and steel forgings.....	Short tons.....	(D)	(D)	(NA)	(NA)
970099	All other materials, and components, parts, containers, and supplies consumed.....	.....	(X)	69,219	(X)	57,900
976000	Materials, components, parts, containers, and supplies consumed, n.s.k. <sup>2</sup> .....	.....	(X)	12,337	(X)	11,641
			INDUSTRY 3433.—NONELECTRIC HEATING EQUIPMENT			
	Materials, parts, containers, and supplies, total.....	.....	(X)	470,096	(X)	412,955
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	11,301	2,031	13,048	2,408
331012	Sheet and strip.....	..do.....	371,613	59,292	424,993	63,890
331013	Plates.....	..do.....	49,279	6,954	51,122	7,474
331015	Structural shapes.....	..do.....	2,967	594	4,136	825
331017	Wire and wire products.....	..do.....	1,726	559	1,519	420
331019	All other alloy steel mill shapes and forms.....	..do.....	15,103	3,844	9,972	2,693
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	663	227	440	390
331029	All other alloy steel mill shapes and forms.....	..do.....	7,663	2,670	3,701	1,719
331031	Stainless steel.....	..do.....	2,926	3,390	2,119	2,845
	Copper and copper-base alloy:					
335728	Bare wire for electrical conduction.....	1,000 lbs.....	35	31	708	420
335790	Insulated wire and cable.....	1,000 lbs.....				
		copper content.	372	283	1,077	730
335102	Rod, bar, and mechanical wire.....	1,000 lbs.....	2,537	983	13,222	7,970
335123	Plate, sheet, and strip.....	..do.....	1,788	1,116		
335127	Pipe and tube.....	..do.....	13,408	8,574		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	..do.....	16,787	6,798	12,523	6,048
335205	Extruded shapes, rod, bar, pipe, etc.....	..do.....	708	439	4,720	2,317
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, etc.).....	..do.....	757	186		
	Primary metals:					
331051	Pig iron.....	Short tons.....	61,210	3,783	86,393	5,293
999811	Iron and steel scrap (excluding home scrap).....	..do.....	101,648	3,678	89,140	3,686
	Casting (rough and semi-finished): <sup>4</sup>					
332011	Iron (gray and malleable).....	..do.....	31,180	10,705	43,630	13,680
332300	Steel.....	..do.....	1,208	668	7,634	2,499
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	3,857	2,892	1,374	1,040
336200	Copper and copper-base alloy.....	..do.....	1,651	1,226	1,232	757
	Electric motors and generators: <sup>5</sup>					
362110	Timing motors, synchronous and subsynchronous.....	Number.....	718,705	8,087	429,920	5,030
362115	Other fractional horsepower electric motors.....	..do.....	1,566,743	17,865	1,806,316	20,191
362120	Integral horsepower motor and generators.....	..do.....	24,346	1,728	15,293	1,284
	Bearings:					
356218	Ball.....	.....	(X)	538	(X)	258
356228	Roller.....	.....				
970099	All other materials and components, parts, containers, and supplies.....	.....	(X)	263,606	(X)	229,596
976000	Materials, components, parts, containers, and supplies consumed, n.s.k. <sup>2</sup> .....	.....	(X)	57,349	(X)	29,492

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.  
applicable. n.s.k. Not specified by kind.

(NA) Not available. (X) Not

Footnotes continued on next page

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Footnotes for Table 7A--Continued

<sup>1</sup>Data are not available for castings produced and consumed in the same establishment except for iron castings which totaled 187,541 short tons in 1963 and 211,467 short tons in 1958.

<sup>2</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

<sup>3</sup>For 1963, data for aluminum and aluminum-base alloy, sheet, plate, and foil, are included with "All other aluminum mill shapes and forms."

<sup>4</sup>No data are available for castings produced and consumed in the same establishment.

<sup>5</sup>No data are available for 1963 on the quantities of electric motors and generators produced and consumed in the same establishment. In 1958, there were 119,909 units of code 362115, other fractional horsepower electric motors produced and consumed in the same establishment.

TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

Item	Metal plumbing fixtures (SIC 3431)	Plumbing fittings, brass goods (SIC 3432)	Heating equipment, except electric (SIC 3433)
Total cost of purchased fuels and electric energy.....\$1,000..	7,128	3,202	8,609
Total cost of purchased fuels.....do....	4,981	1,318	4,418
Bituminous coal, lignite, and anthracite:			
Quantity.....1,000 short tons..	35	(S)	47
Cost.....\$1,000..	400	(S)	434
Coke and breeze:			
Quantity.....1,000 short tons..	43	-	22
Cost.....\$1,000..	1,615	-	615
Fuel oil (distillate and residual):			
Quantity.....1,000 barrels of 42 gallons..	57	56	299
Cost.....\$1,000..	231	196	1,188
Gas (natural, manufactured, still, blast furnace, and coke oven):			
Quantity.....million cu.ft..	4,594	1,240	2,906
Cost.....\$1,000..	2,560	768	1,920
Other fuels.....do....	175	100	261
Electric energy:			
Purchased:			
Quantity.....million kw.-hrs..	167	126	258
Cost.....\$1,000..	2,147	1,884	4,191
Generated less sold.....million kw.-hrs..	(S)	-	-
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	132	70	213
Prime movers, total.....do....	21	9	30
Driving generators.....do....	12	(Z)	3
Not driving generators.....do....	9	9	27
Electric motors, total.....do....	125	61	183
Driven by purchased energy.....do....	110	61	183
Driven by energy generated at establishment.....do....	14	-	-
Aggregate horsepower per 100 production workers.....	1,740	625	686

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3431-	METAL PLUMBING FIXTURES										
	Entire industry.....	81	11,011	68,162	8,833	17,501	50,373	139,859	96,196	234,896	5,863
	Establishments with—										
	90% or more specialization.	61	6,834	43,116	5,500	10,509	32,567	86,286	55,837	140,805	3,384
3433-	HEATING EQUIPMENT, EXCEPT ELECTRIC										
	Entire industry.....	648	42,020	243,857	30,232	60,035	154,435	495,652	525,517	1,019,787	17,815
	Establishments with—										
	90% or more specialization..	507	18,375	100,350	13,312	26,017	63,322	204,727	205,123	412,407	6,886
	75-89% specialization.....	49	7,499	44,674	5,377	10,791	29,270	88,437	86,104	177,052	2,993
34331	Oil burners, residential and industrial (sold separately), except parts (primary product class of estab.).....	48	1,779	11,211	1,093	2,164	5,414	20,926	33,546	54,418	637
	Establishments with—										
	90% or more specialization....	30	407	2,144	272	528	1,227	4,310	11,018	15,357	106
	75-89% specialization.....	6	153	742	111	178	371	1,089	3,118	4,172	(D)
34332	Warm air furnaces (except floor and wall), except parts (primary product class of estab.).....	54	8,596	49,136	5,936	11,542	32,208	93,623	142,655	239,561	2,722
	Establishments with—										
	90% or more specialization....	16	967	5,241	762	1,466	3,831	12,149	15,837	27,171	224
	75-89% specialization.....	12	1,162	4,700	556	1,036	2,528	6,662	9,174	16,440	204
34333	Cast iron heating stoves (except electric), except parts (primary product class of estab.).....	50	5,882	36,269	4,575	9,208	25,829	75,878	65,648	142,930	3,284
	Establishments with—										
	90% or more specialization....	35	2,955	17,831	2,260	4,551	12,429	39,276	36,500	75,866	2,376
	75-89% specialization.....	5	721	4,162	625	1,166	3,058	6,320	5,988	12,393	253
34334	Domestic heating stoves (except electric), except parts (primary product class of estab.).....	26	5,759	30,669	4,539	9,050	20,397	62,224	63,046	121,071	2,724
34335	Steel heating boilers (15 p.s.i. and under), except parts (primary product class of estab.).....	39	3,347	19,670	2,335	4,669	11,676	45,923	53,669	98,184	1,220
	Establishments with—										
	90% or more specialization....	16	671	3,766	503	1,040	2,265	8,431	10,135	18,581	229
	75-89% specialization.....	8	890	5,243	654	1,283	3,483	11,441	12,424	23,364	200
34336	Other heating equipment (except electric) and parts for non-electric heating equipment (primary product class of estab.)	178	14,380	85,615	10,059	19,996	50,637	167,344	143,218	308,098	4,529
	Establishments with—										
	90% or more specialization....	109	5,397	29,927	4,042	7,964	18,612	55,815	48,016	103,508	1,637
	75-89% specialization.....	12	1,483	8,493	1,043	2,161	5,693	16,550	12,317	28,496	994

Standard Notes: - Represents zero.  
applicable.

(D) Withheld to avoid disclosing figures for individual companies.

(NA) Not available.

(X) Not

TABLE 9. Establishments, Production Workers, and Man-Hours for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation				
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>			
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more	
			INDUSTRY 3431.—METAL PLUMBING FIXTURES						
Ferrous foundry.....	12	-	-	12	1,690	-	-	1,690	
Nonferrous foundry (except die casting).....	1	-	-	1	(D)	-	-	(D)	
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	1	1	-	-	(D)	(D)	-	-	
Electroplating and other plating.....	3	-	1	2	(D)	-	(D)	(D)	
Galvanizing and other hot dip coating.....	1	1	-	-	(D)	(D)	-	-	
Heat treating of metals.....	2	2	-	-	(D)	(D)	-	-	
Automatic screw machine department.....	2	1	1	-	(D)	(D)	(D)	-	
Machine shop.....	13	2	6	5	316	(D)	(D)	273	
Tool and die shop.....	8	6	2	-	29	(D)	(D)	-	
Foundry pattern shop.....	7	1	5	1	95	(D)	(D)	(D)	
Plate or structural fabrication.....	5	-	2	3	219	-	(D)	(D)	
Stamping, blanking and forming of metals.....	18	1	9	8	560	(D)	(D)	463	
Painting, lacquering and enameling on metals.....	21	6	6	9	1,068	8	63	997	
			INDUSTRY 3432.—PLUMBING FITTINGS, BRASS GOODS						
Ferrous foundry.....	3	1	1	1	(D)	(D)	(D)	(D)	
Nonferrous foundry (except die casting).....	36	7	8	21	1,223	9	111	1,103	
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	3	1	2	-	15	(D)	(D)	-	
Electroplating and other plating.....	45	14	19	12	799	26	210	563	
Galvanizing and other hot dip coating.....	2	2	-	-	(D)	(D)	-	-	
Heat treating of metals.....	12	10	2	-	33	(D)	(D)	-	
Automatic screw machine department.....	27	12	9	6	331	23	93	215	
Machine shop.....	76	22	30	24	1,206	32	307	867	
Tool and die shop.....	47	27	17	3	276	50	149	77	
Foundry pattern shop.....	13	7	6	-	72	12	60	-	
Plate or structural fabrication.....	4	3	-	1	(D)	(D)	-	(D)	
Stamping, blanking and forming of metals.....	31	14	9	8	426	31	81	314	
Painting, lacquering and enameling on metals.....	13	13	-	-	20	20	-	-	
			Number of establishments			Employed in the specified operation			Number of man-hours worked in the specified operation (\$1,000)
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>			
		1-4	5-19	20 or more		1-4	5-19	20 or more	
			INDUSTRY 3433.—HEATING EQUIPMENT, EXCEPT ELECTRIC						
All operations, total.....	(X)	(X)	(X)	(X)	23,301	(X)	(X)	(X)	49,355
Ferrous foundry.....	24	3	4	17	1,754	4	51	1,699	3,243
Nonferrous foundry (except die casting).....	4	3	1	-	11	(D)	(D)	-	24
Electroplating and other plating.....	10	5	5	-	37	5	32	-	82
Galvanizing and other hot dip coating.....	4	1	2	1	46	(D)	(D)	(D)	34
Heat treating of metals.....	8	4	4	-	52	7	45	-	59
Automatic screw machine department.....	18	7	6	5	250	14	59	177	517
Machine shop.....	142	63	59	20	1,493	117	596	780	3,395
Tool and die shop.....	66	37	27	2	383	67	(D)	(D)	765
Foundry pattern shop.....	27	21	5	1	116	39	(D)	(D)	232
Plate or structural fabrication.....	71	34	24	13	886	66	233	587	1,704
Stamping, blanking and forming of metals.....	183	56	53	74	4,501	113	560	3,828	9,513
Painting, lacquering and enameling on metals.....	209	145	50	14	1,208	265	504	439	2,505
Assembly of product.....	242	66	88	88	7,674	142	933	6,599	16,486
Shipping department, including packing and crating...	232	145	68	19	1,394	268	668	458	2,954
All other operations such as maintenance, warehousing, etc.....	171	86	40	45	3,496	144	424	2,928	7,869

Footnotes on next page.



TABLE 9. Establishments, Production Workers, and Man-Hours for Selected Metalworking Operations: 1963—Continued

Footnotes for Table 9-34B

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below.

Item	INDUSTRY		
	3431	3432	3433
Total number of establishments in the industry.....	81	250	648
Number of establishments which reported one or more of the specified operations.....	34	115	305
Percent of industry production workers in these establishments.....	(85-90)	(80-85)	(75-80)
Number of establishments which reported "none" of the operations apply....	5	12	(X)
Percent of industry production workers in these establishments.....	(0-5)	(0-5)	(X)
Percent of industry production workers in establishments which completed metalworking operations inquiry.....	(85-90)	(85-90)	(75-80)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.

## FABRICATED STRUCTURAL METAL PRODUCTS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3441—Fabricated Structural Steel
- 3442—Metal Doors, Sash, Frames, Molding, and Trim
- 3443—Fabricated Plate Work (Boiler Shops)
- 3444—Sheet Metal Work
- 3446—Architectural and Ornamental Metal Work
- 3449—Miscellaneous Metal Work

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3441—FABRICATED STRUCTURAL STEEL

This industry comprises establishments primarily engaged in manufacturing fabricated iron and steel or other metal for structural purposes, for bridges, buildings, and sections for ships, boats, and barges. Establishments primarily engaged in manufacturing metal doors, sash, frames, molding, and trim are classified in industry 3442; and fabrication work done by construction contractors at the site of construction is classified in construction industries. For a detailed list of products of industry 3441, refer to table 6A, product codes 3441121 to 3441398.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Fabricated Structural Steel Industry in 1963 totaled \$1,916 million. This amount included shipments of fabricated structural steel (primary products) valued at \$1,432 million, shipments of other products (secondary products) valued at \$237 million, and miscellaneous receipts (mainly receipts for resales) at \$247 million.

This industry's shipments of fabricated structural steel in 1963 represented 86 percent of its total product shipments. The industry specialization ratio in 1958 was 87 percent. Secondary products shipped by this industry in 1963 included miscellaneous metal building materials (\$57 million) and ornamental and structural metal work (\$31 million).



While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 69 percent of the total industry shipments are represented by plants specializing in fabricated structural metal for buildings.

Shipments of fabricated structural steel by this industry in 1963 represented 89 percent of all shipments of these products (\$1,604 million) by all industries. In 1958 the coverage ratio was 91 percent. Other industries shipping fabricated structural steel included industry 3443, Boiler Shops, \$32 million; and industry 3444, Sheet Metal Work, \$12 million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product class of industry 3441, other fabricated structural metal, 77 percent.

The production index for the primary products of the industry increased to 119 in 1963 from the 1958 level of 114. The unit value index for 1963 was 120 compared to 126 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3442—METAL DOORS, SASH, FRAMES, MOLDING, AND TRIM

This industry comprises establishments primarily engaged in manufacturing ferrous and nonferrous metal and metal covered doors and sash, window and door frames and screens, molding, and trim. For a detailed list of products of industry 3442, refer to table 6A, product codes 3442113 to 3442551.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Metal Doors, Sash and Trim Industry in 1963 totaled \$1,254 million. This amount included shipments of metal doors, sash and trim (primary products), valued at \$1,046 million, shipments of other products (secondary products) valued at \$136 million, and miscellaneous receipts (mainly receipts for resales) at \$72 million.

This industry's shipments of metal doors, sash, frames, and molding and trim in 1963 represented 88 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 included miscellaneous metal building materials (\$32 million) and sheet metal, roofing, drainage and siding equipment (\$16 million).

Shipments of metal doors, sash and trim by this industry in 1963 represented 94 percent of all shipments of these products (\$1,107 million) by all industries. In 1958 the coverage ratio was 93 percent. Other industries shipping metal doors, sash and trim included industry 3441, Fabricated Structural Metal, \$11 million; and industry 3449, Miscellaneous Metal Work, \$7 million.

The production index for the primary products of the industry increased to 158 in 1963 from the 1958 level of 146. The unit value index for 1963 was 94 compared to 99 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3443—FABRICATED PLATE WORK (BOILER SHOPS)

This industry comprises establishments primarily engaged in manufacturing power and marine boilers, pressure and nonpressure tanks, processing and storage vessels, heat exchangers, weldments and similar products, by the process of cutting, forming and joining metal plates, shapes, bars, sheet, pipe mill products and tubing to custom or standard design for factory or field assembly. Establishments primarily engaged in

manufacturing nonelectric heating apparatus other than power boilers are classified in industry 3433, and household cooking apparatus in industry 3631. For a detailed list of products of industry 3443, refer to table 6A, product codes 3443111 to 3443959.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Boiler Shops Industry in 1963 totaled \$1,623 million. This amount included shipments of boiler shop products (primary products), valued at \$1,311 million, shipments of other products (secondary products) valued at \$168 million, and miscellaneous receipts (largely receipts for resales) at \$144 million.

This industry's shipments of boiler shop products in 1963 represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was also 89 percent. Secondary products shipped by this industry in 1963 included fabricated structural metal for buildings (\$21 million), and general industrial machinery and equipment, n.e.c. (\$12 million).

Shipments of boiler shop products by this industry in 1963 represented 83 percent of all shipments of these products (\$1,581 million) by all industries. In 1958 the coverage ratio was also 83 percent. Other industries shipping fabricated plate works (boiler shops) included industry 3441, Fabricated Structural Metal, \$45 million; and industry 3433, Nonelectric Heating Equipment, \$22 million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3443, e.g., heat exchangers and steam condensers, 67 percent; fabricated steel plate, 73 percent; steel power boilers, parts and attachments, 93 percent; gas cylinders, 65 percent; metal tanks and vessels, custom fabricated and field erected, 97 percent.

#### 3444—SHEET METAL WORK

This industry comprises establishments primarily engaged in manufacturing sheet metal work for buildings (not including fabrication work done by construction contractors at the place of construction) and manufacturing sheet metal stovepipes, light tanks, etc. For a detailed list of products of industry 3444, refer to table 6A, product codes 344111 to 3444398.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Sheet Metal Work Industry in 1963 totaled \$1,304 million. This amount included shipments of sheet metal work (primary products) valued at \$1,031 million, shipments of other products (secondary products) valued at \$139 million, and miscellaneous receipts (mainly receipts for resales) at \$134 million.

This industry's shipments of sheet metal work in 1963 represented 88 percent of its total product shipments. The industry specialization ratio in 1958 was also 88 percent. Secondary products shipped by this industry in 1963 included fabricated structural metal for buildings (\$11 million) and metal tanks complete at factory (standard line, non-pressure) (\$9 million).

Shipments of sheet metal work by this industry in 1963 represented 78 percent of all shipments of these products (\$1,325 million) by all industries. In 1958 the coverage ratio was 82 percent. Other industries shipping sheet metal work included industry 3312, Blast Furnaces and Steel Mills, \$42 million; and industry 3442, Metal Doors, Sash and Trim, \$32 million. These shipment totals do not take into account the volume of



sheet metal work performed by nonmanufacturing establishments, for example, the production of heating and ventilating ducts by plumbing and heating contractors, the production of skylights by roofing contractors, etc.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3444, e.g., sheet metal roofing, siding, and drainage equipment, 62 percent.

#### 3446—ARCHITECTURAL AND ORNAMENTAL METAL WORK

This industry comprises establishments primarily engaged in manufacturing architectural and ornamental metal work of ferrous and nonferrous metals, such as stairs and staircases, open steel flooring (grating), fire escapes, grills, railings, and fences and gates except wire. Establishments primarily engaged in manufacturing prefabricated and portable metal buildings and parts, and miscellaneous metal work are classified in industry 3449. For a detailed list of products of industry 3446, refer to table 6A, product codes 3446011 to 3446041.

Both the code number and content for this industry for 1963 were changed from the classification system used in 1958. The composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is that architectural and ornamental works which were formally included as part of industry 3449 now comprise this new industry.

Value of shipments and other receipts of the Structural Metal Work Industry in 1963 totaled \$269 million. This amount included shipments of architectural and ornamental metal work (primary products) valued at \$219 million, shipments of other products (secondary products) valued at \$36 million, and miscellaneous receipts (mainly receipts for resales) at \$14 million.

This industry's shipments of architectural and ornamental metal work in 1963 represented 86 percent of its total product shipments. Secondary products shipped by this industry in 1963 included fabricated steel plate (\$4 million) and other fabricated structural metal (\$2 million).

Shipments of architectural and ornamental metal work by this industry in 1963 represented 71 percent of all shipments of these products (\$306 million) by all industries. Other industries shipping architectural and ornamental metal work consisted mainly of industry 3441, Fabricated Structural Metal, \$31 million; and industry 3449, Miscellaneous Metal Work, N.E.C., \$17 million.

#### 3449—MISCELLANEOUS METAL WORK

This industry comprises establishments primarily engaged in manufacturing miscellaneous ferrous and nonferrous metal work, such as prefabricated and portable metal buildings and parts, metal plaster bases, fabricated bar joists and concrete reinforcing bars, and prefabricated exterior metal panels. For a detailed list of products of industry 3449, refer to table 6A, product codes 3449211 to 3449379.

The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been significantly changed from the classification system used in 1958. The change in the composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, results from the separation of architectural and ornamental work as a separate industry. Such establishments were previously part of this industry.

Value of shipments and other receipts of the Miscellaneous Metal Work Industry in 1963 totaled \$704 million. This amount included shipments of miscellaneous metal work (primary products) valued at \$542 million, shipments of other products (secondary products) valued at \$68 million, and miscellaneous receipts (mainly receipts for resales) at \$92 million.

This industry's shipments of miscellaneous metal work in 1963 represented 89 percent of its total product shipments. Secondary products shipped by this industry in 1963 included ornamental and structural metal work (\$17 million) and fabricated structural metal for buildings (\$10 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 63 percent of the total industry shipments are represented by plants specializing in product class 34493, miscellaneous metal building materials and curtain wall.

Shipments of miscellaneous metal work by this industry in 1963 represented 68 percent of all shipments of these products (\$793 million) by all industries. Other industries shipping miscellaneous metal work included industry 3312, blast furnaces and steel mills, \$90 million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3449, prefabricated and portable metal buildings, 81 percent; 34493, miscellaneous metal building materials, 59 percent.

## STRUCTURAL METAL PRODUCTS: SIC 344

Value Added by Manufacture by State: 1963

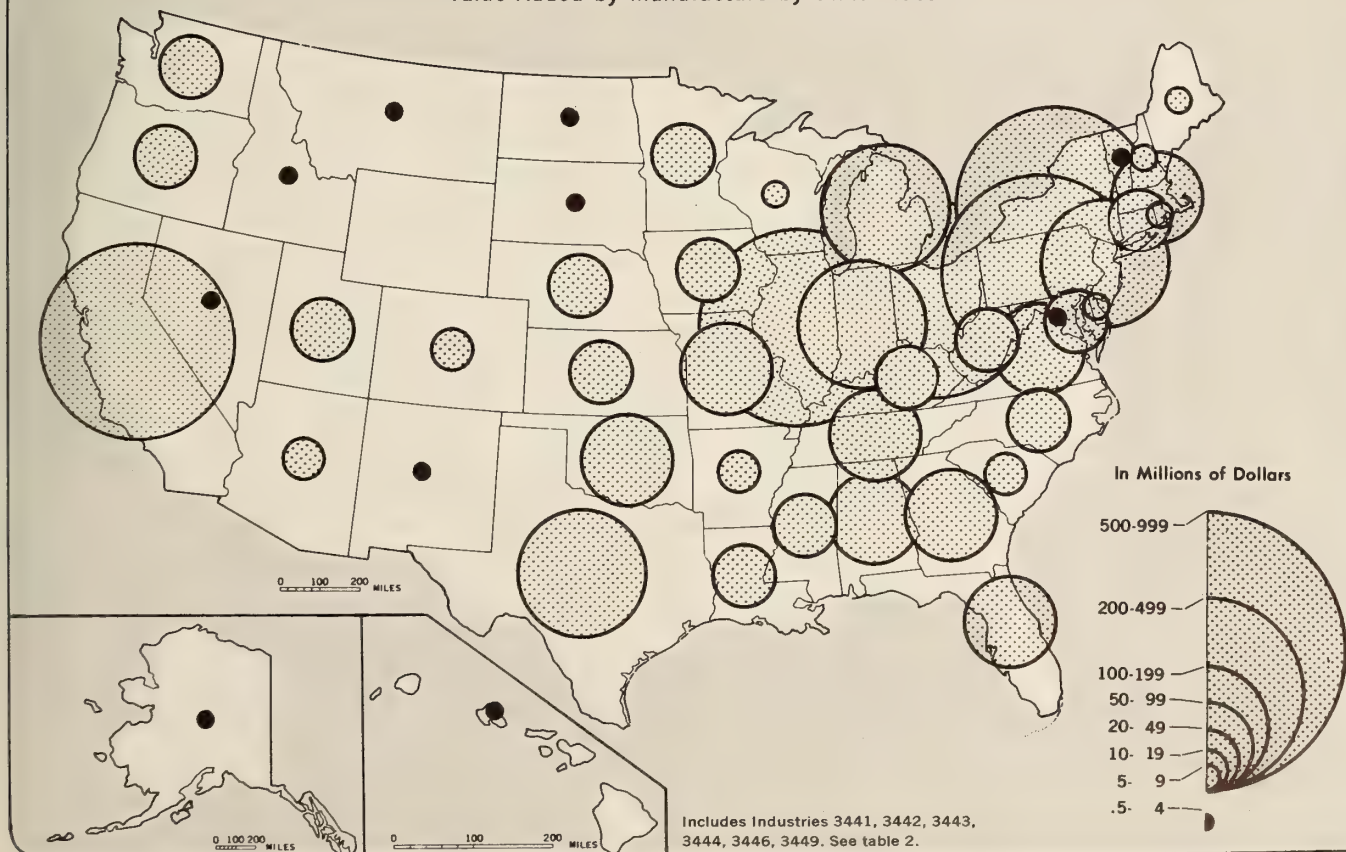




TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new  (\$1,000)	Spec- ial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3441.—FABRICATED STRUCTURAL STEEL														
1963.....	1,636	1,718	817	85,423	527,220	63,674	127,899	350,337	814,805	1,140,975	1,916,048	28,162	86	89
1962 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	79,218	483,571	59,036	121,532	315,797	697,812	1,065,537	1,795,082	19,227	(NA)	(NA)
1961 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	84,323	494,908	62,387	126,422	321,587	776,124	1,038,035	1,814,112	25,215	(NA)	(NA)
1960 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	87,853	509,984	63,919	133,412	326,389	819,955	1,070,225	1,834,465	27,225	(NA)	(NA)
1959 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	82,719	462,506	59,853	119,918	290,618	702,028	970,348	1,710,458	28,409	(NA)	(NA)
1958 <sup>3 4</sup> .....	1,793	1,861	780	91,252	502,697	68,009	135,764	332,691	821,626	1,017,689	1,901,106	37,698	87	91
INDUSTRY 3442.—METAL DOORS, SASH, AND TRIM														
1963.....	1,712	1,817	628	62,799	324,796	46,645	95,727	206,127	570,370	681,385	1,253,814	21,305	88	94
1962 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	59,333	307,093	43,354	96,138	189,116	541,312	636,512	1,172,929	23,673	(NA)	(NA)
1961 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	57,840	284,744	42,304	91,216	174,638	489,824	607,318	1,100,729	17,587	(NA)	(NA)
1960 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	61,632	299,903	44,789	94,402	183,851	506,010	612,622	1,126,762	19,298	(NA)	(NA)
1959 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	59,791	287,027	44,050	89,350	176,593	500,144	635,384	1,139,222	(20,018)	(NA)	(NA)
1958(new SIC) <sup>3</sup>	1,468	1,546	560	57,897	273,219	42,433	83,849	171,756	469,050	570,782	1,037,371	18,055	91	93
1958 (old SIC)	(NA)	1,440	516	54,353	257,100	39,747	78,672	161,929	437,857	533,296	969,425	17,096	92	93
1954.....	1,086	1,106	386	43,284	184,174	33,028	66,490	125,317	342,845	303,545	638,501	22,097	87	89
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	37,160	162,841	28,345	58,846	113,850	271,831	249,085	520,916	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	30,540	129,372	23,845	48,830	89,688	227,498	179,091	406,589	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	30,455	125,514	23,961	48,968	85,133	251,072	192,329	443,401	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	25,036	95,747	19,829	42,348	65,850	181,937	149,931	331,868	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,233	70,171	14,720	31,515	49,385	131,457	96,826	231,043	(NA)	(NA)	(NA)
1947 <sup>5</sup> .....	(NA)	364	(NA)	23,336	72,176	19,100	36,630	53,630	129,366	103,402	232,768	6,668	84	87
1939 <sup>6</sup> .....	(NA)	188	(NA)	(NA)	(NA)	7,387	(NA)	10,054	27,425	17,663	45,088	(NA)	(NA)	(NA)
1937 <sup>4</sup> .....	(NA)	154	(NA)	10,273	15,762	8,408	(NA)	11,879	29,862	20,053	49,915	(NA)	(NA)	(NA)
1935.....	(NA)	134	(NA)	5,985	7,769	4,533	(NA)	5,093	12,456	10,284	22,740	(NA)	(NA)	(NA)
1933.....	(NA)	125	(NA)	4,544	4,642	3,572	(NA)	3,123	7,424	5,953	13,377	(NA)	(NA)	(NA)
1931.....	(NA)	139	(NA)	(NA)	(NA)	6,816	(NA)	8,898	21,036	14,572	35,608	(NA)	(NA)	(NA)
1929.....	(NA)	148	(NA)	11,916	24,265	9,557	(NA)	17,065	41,982	30,178	72,160	(NA)	(NA)	(NA)
1927.....	(NA)	117	(NA)	10,080	21,618	8,050	(NA)	15,564	39,678	25,602	65,280	(NA)	(NA)	(NA)
1925.....	(NA)	92	(NA)	8,357	17,350	6,791	(NA)	12,899	28,450	21,628	50,078	(NA)	(NA)	(NA)
1923.....	(NA)	37	(NA)	2,972	5,786	2,429	(NA)	4,333	9,763	5,604	15,367	(NA)	(NA)	(NA)
1921.....	(NA)	45	(NA)	2,252	4,140	1,782	(NA)	2,881	8,178	4,289	12,467	(NA)	(NA)	(NA)
1919.....	(NA)	57	(NA)	2,638	3,988	2,077	(NA)	2,730	6,299	4,578	10,877	(NA)	(NA)	(NA)
1914.....	(NA)	43	(NA)	2,373	2,085	1,985	(NA)	1,538	3,188	1,996	5,184	(NA)	(NA)	(NA)
1909.....	(NA)	29	(NA)	1,798	1,098	1,601	(NA)	874	1,723	1,283	3,006	(NA)	(NA)	(NA)
1904.....	(NA)	24	(NA)	792	525	699	(NA)	407	875	602	1,477	(NA)	(NA)	(NA)
1899.....	(NA)	13	(NA)	137	105	117	(NA)	86	204	116	320	(NA)	(NA)	(NA)
INDUSTRY 3443.—BOILER SHOP PRODUCTS														
1963.....	1,301	1,383	601	75,018	465,372	54,629	111,409	310,471	770,064	860,612	1,622,988	32,910	89	83
1962 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	72,931	449,765	51,403	104,082	286,085	672,736	800,968	1,499,597	31,485	(NA)	(NA)
1961 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	76,593	456,205	53,880	107,273	289,800	669,175	808,505	1,477,433	21,195	(NA)	(NA)
1960 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	79,857	468,749	56,417	113,232	299,894	677,595	843,510	1,521,691	29,406	(NA)	(NA)
1959 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	83,219	473,164	58,211	116,335	298,644	716,826	836,491	1,590,975	40,254	(NA)	(NA)
1958(new SIC) <sup>4</sup>	1,180	1,252	557	90,551	497,146	64,658	127,164	323,238	754,972	878,425	1,670,007	45,043	89	83
1958 (old SIC)	(NA)	1,189	516	81,501	444,715	58,921	115,735	292,055	682,298	789,439	1,500,875	40,740	88	85
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	86,777	453,257	65,927	133,442	314,119	678,470	784,080	1,420,999	39,920	85	85
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	76,112	382,673	58,002	116,737	262,082	659,992	614,313	1,219,750	37,047	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	69,758	326,567	52,872	105,646	223,076	476,488	511,080	983,639	24,799	(NA)	(NA)
1954.....	934	977	481	74,373	342,069	57,217	115,994	239,967	568,146	555,102	1,133,670	23,651	82	81
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	72,668	324,486	57,429	118,158	235,502	542,801	576,422	1,119,223	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	69,996	303,834	54,025	114,473	214,036	510,735	509,143	1,019,878	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	64,808	269,249	49,888	107,642	190,247	449,885	466,153	916,038	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	63,407	226,567	49,086	101,591	159,953	363,368	381,474	744,842	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	61,112	223,472	46,627	97,426	147,034	359,807	255,370	615,177	(NA)	(NA)	(NA)
1947.....	783	812	437	68,232	207,118	54,185	114,795	151,698	351,139	335,548	686,687	21,908	80	80
1939.....	(NA)	478	(NA)	(NA)	(NA)	20,517	(NA)	27,552	77,891	75,380	153,271	(NA)	(NA)	(NA)
1937.....	(NA)	453	(NA)	29,911	45,910	24,485	(NA)	33,842	82,301	82,979	165,280	(NA)	(NA)	(NA)
1935.....	(NA)	413	(NA)	16,779	21,930	13,290	(NA)	14,770	36,572	36,598	73,170	(NA)	(NA)	(NA)
1933 <sup>7</sup> .....	(NA)	292	(NA)	12,138	12,772	9,805	(NA)	9,094	22,385	23,481	45,866	(NA)	(NA)	(NA)
INDUSTRY 3444.—SHEET METAL WORK														
1963.....	3,139	3,250	755	61,651	373,284	48,041	97,079	264,665	632,384	669,778	1,303,670	26,180	88	78
1962 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	64,401	382,732	49,159	103,726	263,083	615,155	669,121	1,280,477	31,736	(NA)	(NA)
1961 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	62,606	354,782	47,481	99,472	239,980	581,118	629,034	1,203,788	24,088	(NA)	(NA)
1960 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	61,197	342,828	46,243	97,572	231,648	569,439	615,445	1,179,765	25,675	(NA)	(NA)
1959 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	61,613	334,282	47,128	97,161	228,622	584,115	616,823	1,195,033	22,496	(NA)	(NA)
1958 <sup>3 8</sup> .....	3,075	3,158	698	58,800	307,905	44,395	86,142	210,892	516,136	567,632	1,077,811	22,339	88	82
1957.....	(NA)	(NA)	(NA)	51,954	263,685	39,341	76,645	174,467	484,230	429,315	900,579	16,802	85	80
1956.....	(NA)	(NA)	(NA)	53,877	262,019	41,221	81,719	177,158	475,850	430,071	886,885	21,493	(NA)	(NA)
1955.....	(NA)	(NA)	(NA)	52,111	243,379	40,298	79,745	166,905	443,341	412,743	825,968	24,600	(NA)	(NA)
1954.....	2,363	2,421	550	50,190	227,272	38,597	77,639	155,971	393,606	416,157	812,238	18,770	81	80

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
	INDUSTRY 3444.—SHEET METAL WORK—Continued													
1953.....	(NA)	(NA)	(NA)	43,119	196,667	33,424	(NA)	138,347	347,607	305,737	653,344	(NA)	(NA)	(NA)
1952.....	(NA)	(NA)	(NA)	58,526	242,703	47,945	(NA)	180,754	413,828	324,060	737,888	(NA)	(NA)	(NA)
1951.....	(NA)	(NA)	(NA)	55,163	213,382	44,949	(NA)	158,552	379,997	335,346	715,343	(NA)	(NA)	(NA)
1950.....	(NA)	(NA)	(NA)	50,248	176,663	40,536	(NA)	128,042	300,731	314,503	615,234	(NA)	(NA)	(NA)
1947.....	1,665	1,706	(NA)	42,375	131,739	34,897	(NA)	99,460	224,960	195,565	420,525	(NA)	83	82
1939.....	(NA)	1,262	(NA)	24,740	36,727	18,749	(NA)	23,079	66,360	70,981	137,341	(NA)	(NA)	(NA)
1937.....	(NA)	1,392	(NA)	27,606	40,116	22,973	(NA)	29,263	73,161	85,935	159,096	(NA)	(NA)	(NA)
1935.....	(NA)	1,400	(NA)	21,844	28,702	17,369	(NA)	19,551	51,210	58,123	109,333	(NA)	(NA)	(NA)
1933.....	(NA)	1,229	(NA)	16,095	16,938	13,050	(NA)	12,658	33,344	35,463	68,807	(NA)	(NA)	(NA)
1931.....	(NA)	1,762	(NA)	(NA)	(NA)	19,365	(NA)	25,158	60,101	56,342	116,443	(NA)	(NA)	(NA)
1929 <sup>9</sup> .....	(NA)	2,161	(NA)	35,547	61,668	28,593	(NA)	43,255	109,837	112,648	222,485	(NA)	(NA)	(NA)
1927.....	(NA)	1,981	(NA)	30,442	53,253	24,527	(NA)	38,668	92,743	98,386	191,129	(NA)	(NA)	(NA)
1925.....	(NA)	2,107	(NA)	30,655	50,968	24,996	(NA)	37,825	90,963	84,080	175,043	(NA)	(NA)	(NA)
1923.....	(NA)	2,524	(NA)	34,730	55,945	28,852	(NA)	42,446	95,401	93,507	188,908	(NA)	(NA)	(NA)
1921.....	(NA)	3,105	(NA)	50,625	48,213	25,172	(NA)	36,562	72,880	75,896	148,776	(NA)	(NA)	(NA)
1919.....	(NA)	4,796	(NA)	33,503	44,876	27,640	(NA)	33,867	79,415	80,899	160,314	(NA)	(NA)	(NA)
1914.....	(NA)	4,527	(NA)	33,715	26,568	28,714	(NA)	20,518	44,717	50,174	94,891	(NA)	(NA)	(NA)
1909.....	(NA)	3,671	(NA)	(NA)	(NA)	28,448	(NA)	19,368	42,455	46,933	89,388	(NA)	(NA)	(NA)
1904 <sup>10</sup> .....	(NA)	1,989	(NA)	(NA)	(NA)	22,556	(NA)	13,766	28,934	27,148	56,082	(NA)	(NA)	(NA)
	INDUSTRY 3446.—ARCHITECTURAL METAL WORK													
1963.....	1,326	1,334	173	15,587	86,956	12,474	24,195	60,613	148,763	119,313	269,256	6,102	86	71
1958 <sup>2</sup> 11.....	(NA)	1,343	(NA)	20,964	111,006	16,039	31,605	74,234	180,942	145,141	322,440	6,537	(NA)	(NA)
1954 <sup>11</sup> .....	(NA)	1,113	(NA)	21,009	89,235	16,115	32,165	60,687	149,946	112,837	262,784	(NA)	(NA)	(NA)
	INDUSTRY 3449.—MISCELLANEOUS METAL WORK, N.E.C.													
1963.....	12,649	12,697	12,246	24,992	145,042	16,963	34,510	88,843	283,427	420,857	704,166	11,475	89	68
1958 <sup>2</sup> 11.....	(NA)	248	(NA)	21,158	113,798	14,817	30,385	68,373	220,134	371,413	594,711	9,366	(NA)	(NA)
1954 <sup>11</sup> .....	(NA)	272	(NA)	15,286	67,451	10,906	22,341	41,255	124,606	171,234	295,841	(NA)	(NA)	(NA)
	INDUSTRIES 3446 AND 3449.—ARCHITECTURAL METAL WORK AND MISCELLANEOUS METAL WORK, N.E.C. <sup>13</sup>													
1963.....	(NA)	(NA)	(NA)	40,579	231,998	29,437	58,705	149,456	432,190	540,170	973,422	17,577	(NA)	(NA)
1962 <sup>1</sup> 2.....	(NA)	(NA)	(NA)	44,535	256,035	31,910	63,542	162,344	450,848	572,771	1,034,461	22,441	(NA)	(NA)
1961 <sup>1</sup> 2.....	(NA)	(NA)	(NA)	43,470	241,192	31,299	61,629	153,944	435,445	523,341	997,315	15,936	(NA)	(NA)
1960 <sup>1</sup> 2.....	(NA)	(NA)	(NA)	40,397	221,461	29,247	57,948	143,475	401,977	516,002	921,978	19,711	(NA)	(NA)
1959 <sup>1</sup> 2.....	(NA)	(NA)	(NA)	42,808	228,290	30,933	61,995	145,651	429,795	528,401	953,153	(S)	(NA)	(NA)
1958 <sup>3</sup> .....	1,532	1,591	397	42,122	224,804	30,856	61,990	142,607	401,076	516,554	917,151	15,903	87	74

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Includes data for Alaska and Hawaii.

<sup>3</sup>A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so that the industry is not comparable. The 1957 and earlier figures are on the old SIC definition of the industry.

<sup>4</sup>Excludes data for Alaska and Hawaii. Number of "All Employees" in these two States was between 100 and 249.

<sup>5</sup>The figures for 1947 have been revised for comparability with the figures for 1951-1958 by including data for establishments primarily engaged in the manufacture of "Metal storm doors and sash." Value added by manufacture for 1947 on a basis comparable with 1939, 1949 and 1950, which have not been revised, was \$117.6 million.

<sup>6</sup>The figures for 1939 are not entirely comparable with those for earlier years. Value added by manufacture for 1939 on a basis comparable with earlier years was \$29.2 million.

<sup>7</sup>"Boiler shop products" was formerly a part of the discontinued industry "Foundry and machine-shop products, n.e.c." Separate figures for earlier years are, therefore, not available.

<sup>8</sup>Data for Alaska and Hawaii are not included.

<sup>9</sup>Figures for 1929 and earlier years do not include data for sheetmetal dairymen's supplies, classified for these years in the discontinued industry "Dairymen's supplies, etc."

<sup>10</sup>"Sheetmetal work" was formerly a part of the discontinued industry "Tinsmithing, coppersmithing, and sheet iron working." Separate figures for 1899 are, therefore, not available.

<sup>11</sup>Industry 3446 was not a separate industry in the 1958 Census of Manufactures but was part of SIC 3449, Miscellaneous Metal Work, N.E.C. However, data were published in 1958 for plants classified in SIC 3449 specializing in the production of ornamental and structural metal work. This is the source of the separate data for industries 3446 and 3449. In like manner, data were published in 1954 for plants classified in SIC 3441 (1945 edition) specializing in those products now classified in industries 3446 and 3449.

<sup>12</sup>For 1963, a sizeable number of small establishments (under 20 employees) may have been misclassified in industry 3449, Miscellaneous Metal Work, because of insufficient product information. Although this has a significant effect on the number of establishments for this industry it has a very small effect on any of the other statistics, i.e., number of employees, salaries and wages, value added, etc. It is estimated that the effect on these principal statistics is less than 3 percent.

<sup>13</sup>Prior to 1963 "Architectural Metal Work" and "Miscellaneous Metal Work" constituted a single industry. Combined data for these two industries were obtained for 1958-1962.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3441.—FABRICATED STRUCTURAL STEEL													
Total.....	1,718	817	85,423	527,220	63,674	127,899	350,337	814,805	1,140,975	1,916,048	28,162	91,252	821,626
New England.....	93	40	2,828	17,651	2,072	4,239	11,160	29,277	38,214	65,421	906	2,982	28,593
Maine.....	6	5	324	2,083	211	514	1,196	4,588	5,388	9,857	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Massachusetts....	47	19	1,369	8,205	1,040	2,140	5,584	11,772	16,298	27,596	306	1,292	11,812
Rhode Island.....	8	4	198	1,093	138	260	668	1,926	1,625	3,423	38	( <sup>2</sup> )	( <sup>2</sup> )
Connecticut.....	27	9	686	4,744	498	943	2,685	8,429	11,240	18,308	275	861	8,808
Middle Atlantic....	397	186	21,933	142,039	16,784	32,172	97,622	197,107	252,840	430,615	8,205	27,312	260,973
New York.....	191	80	5,666	40,519	4,272	8,666	27,075	66,256	67,149	129,807	1,262	7,522	77,809
New Jersey.....	75	32	2,902	19,467	2,254	4,331	12,829	33,041	31,885	62,713	700	3,309	39,860
Pennsylvania.....	131	74	13,365	82,053	10,258	19,175	57,718	97,810	153,806	238,095	6,243	16,481	143,304
East North Central.	382	174	18,724	120,579	13,588	27,464	78,262	202,048	257,399	445,474	6,048	20,886	189,899
Ohio.....	102	48	4,611	28,777	3,380	6,854	18,806	45,348	62,261	107,073	1,911	4,737	43,771
Indiana.....	48	28	4,722	29,036	3,529	6,820	19,413	42,379	69,794	103,794	793	4,551	29,575
Illinois.....	113	50	4,206	26,876	3,156	6,310	18,456	46,343	47,832	92,239	1,798	5,492	59,248
Michigan.....	81	34	3,545	24,216	2,540	5,344	15,829	48,854	52,573	98,402	1,063	3,895	36,972
Wisconsin.....	38	14	1,640	11,674	983	2,136	5,758	19,124	24,939	43,966	483	2,211	20,333
West North Central.	121	62	5,676	34,621	4,129	8,511	21,912	61,784	92,411	154,135	1,620	6,287	61,909
Minnesota.....	23	11	890	5,773	643	1,321	3,812	8,786	13,305	22,108	97	1,532	14,887
Iowa.....	25	12	1,012	5,774	783	1,528	3,853	10,698	17,130	29,511	244	912	8,742
Missouri.....	41	18	1,642	10,348	1,181	2,586	6,532	22,874	23,881	44,736	411	1,624	19,976
Nebraska.....	10	7	648	3,631	445	867	2,097	4,831	16,469	21,807	440	( <sup>2</sup> )	( <sup>2</sup> )
Kansas.....	18	11	1,143	7,153	853	1,744	4,573	11,513	15,364	26,566	346	1,223	10,427
South Atlantic.....	180	103	8,989	48,793	6,542	13,859	30,795	78,330	126,297	205,064	3,175	8,116	62,622
Maryland.....	27	19	1,017	6,037	725	1,491	3,734	9,345	14,538	24,190	323	1,081	9,055
Virginia.....	32	19	2,543	14,569	1,834	3,761	8,987	24,029	36,899	60,501	494	2,645	17,679
North Carolina....	24	13	1,361	7,829	954	2,145	4,570	11,665	23,765	35,862	1,005	1,057	7,847
South Carolina....	14	8	929	4,574	678	1,709	2,854	7,652	16,788	24,494	438	840	9,380
Georgia.....	26	13	929	4,555	737	1,506	3,472	6,859	7,733	14,728	303	615	3,739
Florida.....	45	22	1,571	7,772	1,135	2,280	4,846	12,244	18,954	30,670	516	1,471	11,037
East South Central.	92	51	5,545	29,385	4,189	8,421	18,990	46,685	69,269	114,603	1,686	4,731	35,615
Kentucky.....	10	5	219	1,157	162	328	776	1,815	2,185	3,797	85	171	1,972
Tennessee.....	35	23	1,865	8,776	1,381	2,622	5,238	15,716	25,686	42,182	673	1,417	9,206
Alabama.....	34	16	2,916	16,645	2,250	4,614	11,424	23,692	32,718	54,618	730	2,872	22,989
Mississippi.....	13	7	545	2,807	396	857	1,552	5,462	8,680	14,006	198	271	1,448
West South Central.	149	80	10,682	58,404	8,072	17,273	38,431	76,844	154,347	231,739	2,324	8,623	66,519
Arkansas.....	8	4	568	2,863	418	790	1,859	6,069	12,408	18,462	393	454	3,894
Louisiana.....	23	12	840	4,645	645	1,403	3,184	11,540	12,117	23,746	277	1,027	8,690
Oklahoma.....	18	13	2,238	13,257	1,594	3,296	7,532	13,997	36,448	50,954	434	2,348	20,298
Texas.....	100	51	7,036	37,639	5,415	11,784	25,856	45,238	93,374	138,577	1,220	4,794	33,637
Mountain.....	63	30	2,653	15,959	1,867	3,733	10,981	24,688	35,192	55,806	658	2,811	22,368
Montana.....	6	3	106	633	77	139	433	815	1,412	2,248	26	( <sup>2</sup> )	( <sup>2</sup> )
Idaho.....	6	2	176	889	120	227	581	1,912	2,100	3,940	83	( <sup>2</sup> )	( <sup>2</sup> )
Colorado.....	18	8	644	4,069	476	963	2,730	5,009	7,991	12,775	162	( <sup>2</sup> )	( <sup>2</sup> )
Arizona.....	14	6	992	5,973	663	1,284	4,151	10,550	9,177	16,766	168	793	6,336
Utah.....	12	6	525	3,269	377	793	2,299	5,244	9,853	14,223	129	563	4,192
Pacific.....	241	91	8,393	59,789	6,431	12,227	42,184	98,042	115,006	213,191	3,540	19,504	193,128
Washington.....	31	11	1,431	9,928	1,159	2,243	7,563	17,374	14,433	30,989	605	1,502	13,476
Oregon.....	26	7	907	6,421	752	1,381	4,582	13,062	17,279	28,903	251	881	9,023
California.....	179	70	5,841	41,919	4,419	8,397	29,381	64,537	81,228	148,153	2,645	7,121	70,629
INDUSTRY 3442.—METAL DOORS, SASH, AND TRIM													
Total.....	1,817	628	62,799	324,796	46,645	95,727	206,127	570,370	681,385	1,253,814	21,305	57,897	469,050
New England.....	128	40	2,922	14,283	2,115	4,364	8,519	26,539	28,572	55,283	799	2,529	20,956
Maine.....	9	1	108	385	84	168	302	687	782	1,417	17	( <sup>2</sup> )	( <sup>2</sup> )
New Hampshire....	10	6	396	1,755	309	650	1,118	3,898	3,793	7,699	244	238	1,870
Massachusetts....	62	17	1,205	6,043	919	1,868	3,928	10,738	13,584	24,589	231	1,263	10,026
Rhode Island.....	16	3	296	1,084	201	424	630	2,597	2,619	5,193	47	295	2,445
Connecticut.....	31	13	917	5,016	602	1,254	2,541	8,619	7,794	16,385	260	674	6,287
Middle Atlantic....	388	138	14,480	76,470	10,599	22,229	49,038	131,454	139,024	269,845	3,514	14,749	113,905
New York.....	192	67	6,790	36,706	4,776	9,982	22,305	59,107	55,572	114,852	1,740	7,382	60,830
New Jersey.....	89	31	2,844	14,188	2,087	4,498	8,949	25,425	34,034	60,154	620	1,831	14,011
Pennsylvania.....	107	40	4,846	25,576	3,736	7,749	17,784	46,922	49,418	94,839	1,154	5,536	39,064

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3442.—METAL DOORS, SASH, AND TRIM—Continued													
East North Central..	396	147	17,261	94,465	12,985	26,304	61,704	162,507	205,735	369,124	7,099	18,322	154,981
Ohio.....	95	41	5,955	33,217	4,547	9,070	22,135	56,334	65,801	122,129	2,303	5,782	47,396
Indiana.....	39	14	1,973	10,739	1,465	2,873	6,793	18,713	19,897	37,983	728	1,704	12,911
Illinois.....	111	42	4,558	24,538	3,416	6,957	15,949	43,595	50,313	93,841	1,599	4,407	42,594
Michigan.....	126	44	4,095	22,414	3,084	6,333	14,707	37,585	63,007	101,918	2,338	5,669	47,695
Wisconsin.....	25	6	680	3,557	473	1,071	2,120	6,280	6,717	13,253	131	760	4,385
West North Central..	150	56	4,423	22,942	3,145	6,480	14,336	39,794	41,634	81,602	1,264	3,282	27,843
Minnesota.....	32	9	713	3,952	554	1,130	2,699	6,358	6,393	12,613	173	456	3,425
Iowa.....	18	7	379	1,606	291	635	1,025	2,821	2,967	6,095	96	( <sup>2</sup> )	( <sup>2</sup> )
Missouri.....	53	26	2,560	14,140	1,777	3,670	8,701	22,886	25,046	47,954	823	2,097	17,014
Nebraska.....	13	3	180	764	124	254	465	1,079	1,462	2,507	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Kansas.....	29	11	571	2,421	386	769	1,408	6,517	5,624	12,155	131	283	2,685
South Atlantic.....	238	84	8,914	39,334	6,805	13,807	24,422	75,853	96,982	172,424	3,281	7,413	50,411
Maryland.....	15	6	297	1,532	197	374	685	4,370	4,214	7,245	81	255	2,182
Virginia.....	26	9	671	3,158	489	1,086	1,893	6,121	5,769	11,825	181	558	3,632
North Carolina....	29	7	562	2,220	420	857	1,433	3,461	6,540	10,014	193	( <sup>2</sup> )	( <sup>2</sup> )
South Carolina....	13	4	273	1,096	214	442	750	2,288	2,537	4,745	265	177	832
Georgia.....	33	10	2,201	10,739	1,680	3,762	6,960	21,596	27,346	49,609	1,272	1,312	10,382
Florida.....	104	46	4,774	20,053	3,701	7,075	12,335	37,019	48,816	86,223	1,255	4,925	32,402
East South Central..	80	30	2,586	11,196	2,021	4,198	7,593	20,785	27,757	48,740	1,430	2,385	19,835
Kentucky.....	25	10	1,131	5,050	836	1,714	3,284	8,601	9,924	18,676	287	737	8,625
Tennessee.....	27	10	732	2,868	607	1,254	1,873	5,684	7,914	13,325	597	( <sup>2</sup> )	( <sup>2</sup> )
Alabama.....	19	4	373	1,907	299	643	1,474	4,393	5,364	9,888	467	923	7,644
Mississippi.....	9	6	350	1,371	279	587	962	2,107	4,555	6,851	79	( <sup>2</sup> )	( <sup>2</sup> )
West South Central..	126	42	3,897	16,503	2,979	6,128	10,031	32,247	42,869	75,246	1,668	3,156	23,183
Arkansas.....	14	2	285	1,155	229	512	856	2,382	3,547	5,817	141	107	818
Louisiana.....	13	7	584	2,663	426	813	1,577	4,877	6,924	12,128	114	451	4,015
Oklahoma.....	21	7	914	4,759	680	1,523	2,979	9,922	6,966	17,072	455	631	6,266
Texas.....	78	26	2,114	7,926	1,644	3,280	4,619	15,066	25,432	40,229	958	1,967	12,084
Mountain.....	42	8	570	3,203	397	803	1,718	5,577	5,409	11,048	120	581	5,382
Colorado.....	22	4	288	1,846	178	355	725	3,053	3,257	6,329	54	( <sup>2</sup> )	( <sup>2</sup> )
Pacific.....	269	83	7,746	46,400	5,599	11,414	28,766	75,614	93,403	170,502	2,130	5,480	52,554
Washington.....	36	8	976	6,562	720	1,347	4,319	10,405	9,742	20,284	267	875	9,242
California.....	215	69	6,353	37,677	4,540	9,388	22,794	61,357	80,727	143,420	1,769	4,283	40,811
INDUSTRY 3443.—BOILER SHOP PRODUCTS													
Total.....	1,383	601	75,018	465,372	54,629	111,409	310,471	770,064	860,612	1,622,988	32,910	90,551	754,972
New England.....	91	31	2,401	15,545	1,753	3,756	9,911	28,020	23,409	51,369	1,403	2,699	22,962
Massachusetts.....	51	24	1,843	12,221	1,331	2,863	7,616	22,101	18,743	40,940	1,057	1,608	12,663
Connecticut.....	25	6	437	2,774	327	700	1,875	5,008	3,881	8,714	265	848	8,619
Middle Atlantic.....	296	116	16,893	107,750	11,959	24,035	71,033	165,325	188,481	349,042	5,178	24,750	220,431
New York.....	89	26	3,831	25,596	2,638	5,502	16,413	43,698	36,698	78,920	1,304	6,530	59,449
New Jersey.....	74	24	2,297	14,520	1,704	3,532	10,098	23,205	20,477	38,785	646	2,859	24,770
Pennsylvania.....	133	66	10,765	67,634	7,617	15,001	44,522	98,422	131,306	231,337	3,228	15,361	136,212
East North Central..	354	156	20,757	133,196	14,157	29,046	82,885	208,145	213,540	417,809	7,740	21,972	190,660
Ohio.....	93	41	8,640	56,901	5,183	10,711	30,797	91,040	85,041	169,899	3,502	10,544	92,029
Indiana.....	39	16	2,434	15,398	1,698	3,370	9,991	21,722	33,340	54,404	961	3,233	34,650
Illinois.....	84	42	3,557	22,057	2,818	5,798	15,921	36,107	38,411	74,568	1,677	3,474	27,895
Michigan.....	83	28	1,734	11,519	1,320	2,756	7,829	18,755	20,599	40,344	415	1,526	12,542
Wisconsin.....	55	29	4,392	27,321	3,138	6,411	18,347	40,521	36,149	78,594	1,185	3,195	23,544
West North Central..	87	34	4,172	25,346	3,180	6,471	17,439	40,954	51,519	92,138	2,171	4,704	36,446
Minnesota.....	14	7	620	3,729	481	956	2,625	4,899	8,230	13,377	154	610	5,479
Iowa.....	18	6	893	5,051	649	1,368	3,292	9,701	11,320	19,319	425	307	2,442
Missouri.....	26	11	2,049	12,916	1,575	3,114	9,062	20,283	21,780	43,182	914	3,039	22,716
Nebraska.....	8	4	275	1,797	211	459	1,065	3,395	6,540	9,998	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Kansas.....	16	6	288	1,606	222	482	1,178	2,402	2,966	5,310	103	609	4,450
South Atlantic.....	123	55	5,642	30,146	4,631	9,292	22,296	63,492	64,954	134,295	3,486	5,081	32,704
Delaware.....	6	4	313	2,163	258	564	1,736	6,931	6,999	13,457	113	492	5,018
Maryland.....	20	7	571	3,247	443	903	2,209	4,798	6,092	10,594	100	517	3,616
Virginia.....	12	8	1,170	6,218	863	1,563	3,706	14,833	13,033	35,021	1,477	1,446	6,774
North Carolina....	23	10	1,201	6,022	1,078	2,249	5,018	8,946	13,304	22,383	159	996	6,609
South Carolina....	9	2	151	779	123	223	592	2,006	1,136	3,060	263	( <sup>2</sup> )	( <sup>2</sup> )
Georgia.....	19	12	1,517	7,727	1,307	2,646	6,199	18,832	16,229	34,601	1,065	1,199	7,270
Florida.....	29	10	595	3,163	458	934	2,200	5,827	7,295	13,002	229	302	2,555

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3443.—BOILER SHOP PRODUCTS—Continued													
East South Central..	55	32	7,465	44,507	5,645	11,578	31,983	72,798	73,194	145,240	3,703	8,750	64,916
Kentucky.....	15	8	545	2,986	398	802	1,990	4,503	5,511	10,096	214	746	6,035
Alabama.....	18	12	1,722	9,914	1,277	2,711	7,666	21,375	24,623	46,108	557	1,215	10,819
West South Central..	151	85	9,356	52,321	7,284	15,592	36,870	105,807	126,399	228,971	4,007	9,127	70,112
Arkansas.....	9	4	208	851	174	366	642	1,043	2,437	3,497	113	126	895
Louisiana.....	14	9	1,763	10,690	1,314	2,866	7,215	18,252	21,542	38,918	759	1,541	9,511
Oklahoma.....	24	15	1,958	11,153	1,541	3,326	7,963	30,718	34,397	64,673	423	2,092	20,707
Texas.....	104	57	5,427	29,627	4,255	9,034	21,050	55,794	68,023	121,883	2,712	5,368	38,999
Mountain.....	36	20	1,948	12,392	1,462	2,946	9,090	18,881	28,094	47,115	550	2,348	16,334
Colorado.....	12	6	655	4,474	446	865	2,944	4,231	8,796	12,872	178	701	4,882
Utah.....	11	9	1,002	6,146	799	1,656	4,983	10,990	14,026	25,500	272	1,166	7,418
Pacific.....	190	72	6,384	44,169	4,558	8,693	28,964	66,642	91,022	157,009	4,672	11,120	100,407
Oregon.....	14	6	467	3,164	374	745	2,256	5,636	6,542	12,040	375	454	3,066
California.....	150	60	5,617	38,939	3,947	7,493	25,132	57,549	81,575	138,639	4,184	10,090	92,530
INDUSTRY 3444.—SHEET METAL WORK													
Total.....	3,250	755	61,651	373,284	48,041	97,079	264,665	632,384	669,778	1,303,670	26,180	58,800	516,136
New England.....	271	60	4,052	24,777	3,201	6,526	17,835	37,181	28,034	65,098	1,365	3,600	28,378
New Hampshire.....	12	2	177	778	131	250	499	1,122	502	1,614	21	( <sup>2</sup> )	( <sup>2</sup> )
Massachusetts.....	165	41	2,848	17,662	2,249	4,604	12,456	25,778	19,483	45,196	1,019	2,539	20,655
Rhode Island.....	24	3	178	1,134	146	305	888	1,903	997	2,907	52	121	1,019
Connecticut.....	60	13	772	4,779	613	1,246	3,676	7,602	6,163	13,751	263	703	4,971
Middle Atlantic.....	655	185	14,552	90,120	11,390	23,136	65,978	149,363	124,067	273,601	4,739	13,672	114,569
New York.....	291	79	6,344	40,426	5,190	10,486	31,022	64,303	44,256	108,780	1,466	5,490	45,144
New Jersey.....	184	49	3,232	21,293	2,567	5,282	15,692	33,733	27,460	61,883	1,038	2,773	22,358
Pennsylvania.....	180	57	4,976	28,401	3,633	7,368	19,264	51,327	52,351	102,938	2,235	5,409	47,067
East North Central..	680	195	17,489	108,514	13,407	27,291	73,999	186,619	224,968	410,868	9,059	15,530	149,472
Ohio.....	206	63	5,539	34,321	4,157	8,434	23,076	64,657	75,883	141,034	2,395	5,658	57,574
Indiana.....	73	28	1,667	9,478	1,291	2,566	6,600	16,628	19,278	35,382	636	1,150	10,290
Illinois.....	196	52	3,708	22,543	2,893	5,973	16,092	36,853	38,645	75,608	1,315	3,269	27,453
Michigan.....	133	32	3,505	21,952	2,828	5,719	15,736	39,483	37,737	77,084	2,564	2,827	28,989
Wisconsin.....	72	20	3,070	20,220	2,238	4,599	12,495	28,998	53,425	81,760	2,149	2,626	25,166
West North Central..	204	58	5,723	34,028	4,451	8,917	23,688	61,053	68,220	129,958	2,519	7,806	64,728
Minnesota.....	49	17	878	5,088	689	1,419	3,601	7,579	9,426	16,713	843	1,081	9,220
Iowa.....	32	8	1,087	6,796	873	1,820	5,041	10,677	9,829	20,992	220	857	8,806
Missouri.....	65	16	2,327	14,947	1,796	3,584	10,673	26,135	28,885	55,761	662	4,178	29,593
Nebraska.....	21	9	784	4,020	613	1,066	2,195	9,598	10,996	20,563	316	993	11,479
Kansas.....	27	6	367	1,997	294	596	1,470	4,964	4,231	8,801	427	465	3,179
South Atlantic.....	369	73	5,900	30,285	4,680	9,410	21,799	53,098	72,465	124,896	3,560	5,498	41,070
Maryland.....	46	14	1,026	6,000	791	1,742	4,206	9,413	11,512	20,393	365	915	8,127
Virginia.....	32	14	738	3,522	582	1,219	2,522	6,090	5,736	12,195	163	532	3,823
West Virginia.....	15	4	646	3,660	521	969	2,727	8,597	13,236	21,808	253	454	3,062
North Carolina.....	61	9	874	3,883	715	1,430	2,805	6,528	16,472	22,406	1,939	669	5,135
Georgia.....	61	14	928	4,519	740	1,444	3,294	7,809	10,563	18,278	268	1,024	7,450
Florida.....	120	15	1,356	6,822	1,037	2,086	4,665	12,247	13,517	25,979	495	1,586	11,577
East South Central..	168	25	1,639	7,807	1,288	2,628	5,601	15,190	17,975	32,934	456	1,543	11,963
Kentucky.....	24	6	321	1,992	235	478	1,423	3,321	4,039	7,338	62	574	3,846
Tennessee.....	57	11	670	3,153	531	1,113	2,202	6,322	8,136	14,321	172	423	4,038
Alabama.....	46	7	446	1,837	361	706	1,404	3,981	4,423	8,331	142	376	2,775
Mississippi.....	41	1	202	825	161	331	572	1,566	1,377	2,944	80	170	1,304
West South Central..	303	37	3,249	16,515	2,500	5,000	11,871	25,127	29,178	55,023	985	2,974	20,640
Arkansas.....	22	4	170	535	108	242	376	838	1,008	1,859	42	173	660
Louisiana.....	59	6	553	3,021	436	858	2,419	4,840	4,866	9,498	151	356	2,564
Oklahoma.....	50	6	488	2,272	379	740	1,647	3,984	4,901	9,028	125	371	3,017
Texas.....	172	21	2,038	10,687	1,577	3,160	7,429	15,465	18,403	34,638	667	2,074	14,399
Mountain.....	93	12	996	6,045	824	1,689	4,799	11,547	11,695	23,371	384	1,126	10,206
Colorado.....	24	2	289	1,902	239	483	1,537	2,965	2,441	5,355	71	285	2,569
Arizona.....	29	3	238	1,293	198	406	1,002	2,277	2,933	5,176	66	173	1,358
Utah.....	17	4	202	1,355	170	364	1,104	2,710	2,462	5,334	76	236	2,166
Pacific.....	507	110	8,051	55,193	6,300	12,482	39,095	93,206	93,176	187,921	3,113	7,051	75,110
Washington.....	49	13	842	6,164	675	1,298	4,765	9,351	10,135	20,017	242	777	7,580
Oregon.....	41	8	683	4,406	550	1,059	3,196	6,889	9,758	16,898	(D)	860	7,945
California.....	411	88	6,471	44,222	5,025	10,012	30,789	76,408	72,800	150,030	2,613	5,414	59,585

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3446.—ARCHITECTURAL METAL WORK													
Total.....	1,334	173	15,587	86,956	12,474	24,195	60,613	148,763	119,313	269,256	6,102	( <sup>3</sup> )	( <sup>3</sup> )
New England.....	68	7	810	5,013	618	1,152	3,279	8,942	5,174	14,030	479	( <sup>3</sup> )	( <sup>3</sup> )
Massachusetts....	30	4	209	1,165	172	334	855	1,968	1,443	3,429	56	( <sup>3</sup> )	( <sup>3</sup> )
Connecticut.....	27	3	584	3,782	429	784	2,358	6,820	3,657	10,371	(D)	( <sup>3</sup> )	( <sup>3</sup> )
Middle Atlantic....	400	50	4,611	26,324	3,747	7,256	19,165	44,935	36,322	80,868	1,596	( <sup>3</sup> )	( <sup>3</sup> )
New York.....	173	29	2,016	11,156	1,593	3,130	7,784	20,805	13,809	34,287	889	( <sup>3</sup> )	( <sup>3</sup> )
New Jersey.....	93	5	544	3,178	434	853	2,210	5,916	3,637	9,540	102	( <sup>3</sup> )	( <sup>3</sup> )
Pennsylvania.....	134	16	2,051	11,990	1,720	3,273	9,171	18,214	18,876	37,041	605	( <sup>3</sup> )	( <sup>3</sup> )
East North Central.	243	41	3,208	18,477	2,488	4,885	12,274	34,025	24,873	59,373	1,101	( <sup>3</sup> )	( <sup>3</sup> )
Ohio.....	75	16	1,238	6,898	978	1,890	4,669	13,318	8,068	21,105	351	( <sup>3</sup> )	( <sup>3</sup> )
Indiana.....	25	3	252	1,493	183	364	1,021	3,168	3,509	6,642	33	( <sup>3</sup> )	( <sup>3</sup> )
Illinois.....	76	11	927	4,929	737	1,474	3,548	8,195	6,451	15,731	383	( <sup>3</sup> )	( <sup>3</sup> )
Michigan.....	45	8	505	3,375	400	775	2,064	6,102	4,737	10,614	272	( <sup>3</sup> )	( <sup>3</sup> )
Wisconsin.....	22	3	286	1,782	190	382	972	3,242	2,108	5,281	62	( <sup>3</sup> )	( <sup>3</sup> )
West North Central.	77	10	727	3,898	592	1,141	2,811	6,743	5,062	11,757	249	( <sup>3</sup> )	( <sup>3</sup> )
Minnesota.....	20	5	263	1,475	216	418	1,062	2,216	1,575	3,743	84	( <sup>3</sup> )	( <sup>3</sup> )
Missouri.....	26	2	283	1,529	227	433	1,059	2,787	1,600	4,318	112	( <sup>3</sup> )	( <sup>3</sup> )
South Atlantic....	179	18	1,761	8,629	1,404	2,757	5,938	14,555	13,722	28,643	542	( <sup>3</sup> )	( <sup>3</sup> )
Maryland.....	32	2	413	2,289	296	578	1,376	4,408	4,090	8,502	185	( <sup>3</sup> )	( <sup>3</sup> )
Virginia.....	22	5	539	2,463	446	886	1,767	3,364	3,148	6,629	103	( <sup>3</sup> )	( <sup>3</sup> )
South Carolina....	11	2	101	345	80	155	247	849	888	1,745	33	( <sup>3</sup> )	( <sup>3</sup> )
Georgia.....	22	2	129	579	104	205	404	1,356	1,324	2,680	65	( <sup>3</sup> )	( <sup>3</sup> )
Florida.....	50	4	342	1,720	283	553	1,260	2,588	2,737	5,532	88	( <sup>3</sup> )	( <sup>3</sup> )
East South Central..	71	8	734	3,386	619	1,164	2,535	4,855	6,889	11,967	298	( <sup>3</sup> )	( <sup>3</sup> )
Kentucky.....	15	4	292	1,540	241	448	1,154	2,178	1,846	4,017	150	( <sup>3</sup> )	( <sup>3</sup> )
Alabama.....	21	2	231	789	205	371	621	810	2,624	3,637	68	( <sup>3</sup> )	( <sup>3</sup> )
West South Central.	106	8	935	4,652	723	1,399	2,951	8,637	6,637	14,784	610	( <sup>3</sup> )	( <sup>3</sup> )
Oklahoma.....	11	2	115	641	93	180	449	1,372	669	1,929	89	( <sup>3</sup> )	( <sup>3</sup> )
Texas.....	66	6	720	3,584	546	1,057	2,183	6,114	4,966	10,703	447	( <sup>3</sup> )	( <sup>3</sup> )
Mountain.....	41	8	938	4,648	820	1,612	3,649	7,571	5,798	13,312	207	( <sup>3</sup> )	( <sup>3</sup> )
Colorado.....	11	1	100	564	82	158	399	768	597	1,375	9	( <sup>3</sup> )	( <sup>3</sup> )
Utah.....	10	4	271	1,575	223	433	1,165	3,097	2,496	5,693	52	( <sup>3</sup> )	( <sup>3</sup> )
Pacific.....	149	23	1,863	11,929	1,463	2,829	8,011	18,500	14,836	34,522	1,020	( <sup>3</sup> )	( <sup>3</sup> )
California.....	117	21	1,740	11,150	1,359	2,622	7,468	17,089	13,780	31,999	963	( <sup>3</sup> )	( <sup>3</sup> )
INDUSTRY 3449.—MISCELLANEOUS METAL WORK, N.E.C.													
Total.....	697	246	24,992	145,042	16,963	34,510	88,843	283,427	420,857	704,166	11,475	( <sup>3</sup> )	( <sup>3</sup> )
New England.....	21	10	424	2,321	337	717	1,643	3,926	7,092	11,084	195	( <sup>3</sup> )	( <sup>3</sup> )
Massachusetts....	12	7	301	1,582	239	501	1,134	2,597	4,874	7,434	181	( <sup>3</sup> )	( <sup>3</sup> )
Middle Atlantic....	163	37	3,253	19,808	2,088	4,126	11,464	37,132	51,701	88,485	958	( <sup>3</sup> )	( <sup>3</sup> )
New York.....	65	12	1,303	8,497	823	1,605	4,647	13,595	11,548	24,958	302	( <sup>3</sup> )	( <sup>3</sup> )
New Jersey.....	41	5	568	3,235	355	727	1,998	7,440	13,735	21,129	299	( <sup>3</sup> )	( <sup>3</sup> )
Pennsylvania.....	57	20	1,382	8,076	910	1,794	4,819	16,097	26,418	42,398	357	( <sup>3</sup> )	( <sup>3</sup> )
East North Central.	130	48	6,327	39,131	4,508	9,050	25,390	92,100	127,272	215,911	4,591	( <sup>3</sup> )	( <sup>3</sup> )
Ohio.....	33	13	1,700	10,889	1,283	2,407	7,658	24,835	41,250	64,385	907	( <sup>3</sup> )	( <sup>3</sup> )
Indiana.....	16	4	1,098	7,113	768	1,727	4,505	15,502	14,299	29,299	431	( <sup>3</sup> )	( <sup>3</sup> )
Illinois.....	46	22	2,940	17,826	2,025	4,067	11,199	46,094	62,936	107,433	3,007	( <sup>3</sup> )	( <sup>3</sup> )
Michigan.....	29	9	557	3,131	408	803	1,915	5,382	8,540	14,249	232	( <sup>3</sup> )	( <sup>3</sup> )
West North Central.	41	22	2,368	12,809	1,575	3,211	7,484	24,351	31,546	56,487	889	( <sup>3</sup> )	( <sup>3</sup> )
Minnesota.....	10	6	803	4,487	635	1,265	3,108	6,448	9,753	16,490	214	( <sup>3</sup> )	( <sup>3</sup> )
Missouri.....	10	2	246	1,318	136	258	667	2,745	2,237	4,830	60	( <sup>3</sup> )	( <sup>3</sup> )
Nebraska.....	8	5	711	4,070	436	935	2,001	7,974	11,613	19,888	508	( <sup>3</sup> )	( <sup>3</sup> )
Kansas.....	7	6	284	1,392	110	229	519	2,244	5,237	7,752	34	( <sup>3</sup> )	( <sup>3</sup> )
South Atlantic....	92	39	3,791	19,729	2,587	5,345	11,811	35,848	69,426	105,861	1,802	( <sup>3</sup> )	( <sup>3</sup> )
Maryland.....	14	6	952	5,297	490	977	2,354	9,164	14,135	23,959	205	( <sup>3</sup> )	( <sup>3</sup> )
Virginia.....	8	6	446	2,552	338	757	1,777	4,737	8,655	13,160	101	( <sup>3</sup> )	( <sup>3</sup> )
North Carolina...	8	3	275	1,358	170	351	623	1,970	8,144	10,091	296	( <sup>3</sup> )	( <sup>3</sup> )
Georgia.....	13	5	294	1,227	229	438	829	2,882	5,228	8,027	285	( <sup>3</sup> )	( <sup>3</sup> )
Florida.....	37	12	971	4,660	697	1,451	2,746	8,252	18,198	26,430	357	( <sup>3</sup> )	( <sup>3</sup> )
East South Central.	49	23	2,311	12,212	1,658	3,241	7,656	19,091	36,414	57,841	468	( <sup>3</sup> )	( <sup>3</sup> )
Kentucky.....	11	6	629	3,513	480	952	2,508	2,378	5,617	9,737	86	( <sup>3</sup> )	( <sup>3</sup> )
Alabama.....	18	9	1,256	6,747	860	1,663	3,873	12,976	22,483	36,117	293	( <sup>3</sup> )	( <sup>3</sup> )

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3449.—MISCELLANEOUS METAL WORK—Continued													
West South Central..	81	27	2,697	12,234	1,675	3,569	7,361	19,915	41,070	61,479	709	(3)	(3)
Arkansas.....	6	2	117	402	102	211	333	516	1,062	1,613	(D)	(3)	(3)
Louisiana.....	16	3	245	1,300	172	421	1,006	2,845	4,323	7,017	(D)	(3)	(3)
Oklahoma.....	9	4	298	1,768	209	446	1,128	3,039	3,777	6,854	93	(3)	(3)
Texas.....	50	18	2,037	8,764	1,192	2,491	4,894	13,515	31,908	45,995	545	(3)	(3)
Mountain.....	25	9	582	3,171	431	962	2,092	4,723	10,299	14,937	191	(3)	(3)
Colorado.....	11	4	271	1,462	235	531	1,250	2,258	6,373	8,622	41	(3)	(3)
Pacific.....	95	31	3,239	23,627	2,104	4,289	13,942	46,341	46,037	92,081	1,672	(3)	(3)
Oregon.....	7	4	357	2,582	151	299	962	4,599	8,181	12,964	275	(3)	(3)
California.....	77	25	2,788	20,405	1,900	3,885	12,674	40,991	35,733	76,226	1,375	(3)	(3)

(D) Withheld to avoid disclosing figures for individual companies.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3441, Fabricated Structural Steel: New England—New Hampshire, 2 (20-99); Vermont, 3 (100-249); West North Central—North Dakota, 2 (100-249); South Dakota, 2 (100-249); South Atlantic—Delaware, 1 (1-19); District of Columbia, 2 (20-99); West Virginia, 9 (500-999); Mountain—Wyoming, 1 (1-19); New Mexico, 3 (20-99); Nevada, 3 (20-99); Pacific—Alaska, 1 (20-99); Hawaii, 4 (100-249).

SIC 3442, Metal Doors, Sash, and Trim: West North Central—North Dakota, 2 (1-19); South Dakota, 3 (1-19); South Atlantic—Delaware, 5 (20-99); District of Columbia, 3 (1-19); West Virginia, 10 (20-99); Mountain—Montana, 3 (1-19); Idaho, 2 (1-19); New Mexico, 1 (20-99); Arizona, 6 (20-99); Utah, 6 (100-249); Nevada, 2 (1-19); Pacific—Oregon, 15 (250-499); Alaska, 1 (1-19); Hawaii, 2 (20-99).

SIC 3443, Boiler shop products: New England—Maine, 3 (1-19); New Hampshire, 4 (20-99); Vermont, 1 (1-19); Rhode Island, 7 (20-99); West North Central—North Dakota, 1 (1-19); South Dakota, 4 (20-99); South Atlantic—District of Columbia, 1 (20-99); West Virginia, 4 (20-99); East South Central—Tennessee, 16 (4,080); Mississippi, 6 (1,118); Mountain—Montana, 2 (20-99); Idaho, 3 (110); Wyoming, 1 (1-19); New Mexico, 4 (20-99); Arizona, 2 (20-99); Nevada, 1 (1-19); Pacific—Washington, 24 (250-499); Alaska, 2 (1-19).

SIC 3444, Sheet Metal Work: New England—Maine, 7 (20-99); Vermont, 3 (20-99); West North Central—North Dakota, 3 (20-99); South Dakota, 7 (243); South Atlantic—Delaware, 3 (1-19); District of Columbia, 3 (184); South Carolina, 28 (137); Mountain—Montana, 7 (20-99); Idaho, 7 (20-99); Wyoming, 4 (20-99); New Mexico, 4 (20-99); Nevada, 1 (20-99); Pacific—Alaska, 3 (1-19); Hawaii, 3 (20-99).

SIC 3446, Architectural Metal Work: New England—Maine, 1 (1-19); New Hampshire, 3 (1-19); Vermont, 1 (1-19); Rhode Island, 6 (1-19); West North Central—Iowa, 13 (20-99); South Dakota, 1 (1-19); South Atlantic—Delaware, 6 (20-99); District of Columbia, 6 (20-99); West Virginia, 4 (1-19); North Carolina, 26 (20-99); East South Central—Tennessee, 29 (153); Mississippi, 6 (20-99); West South Central—Arkansas, 10 (20-99); Louisiana, 19 (20-99); Mountain—Montana, 2 (1-19); Idaho, 4 (1-19); New Mexico, 4 (1-19); Arizona, 7 (500-999); Nevada, 3 (20-99); Pacific—Washington, 21 (20-99); Oregon, 9 (20-99); Alaska, 1 (1-19); Hawaii, 1 (1-19).

SIC 3449, Miscellaneous Metal Work: New England—Maine, 1 (20-99); New Hampshire, 1 (1-19); Rhode Island, 3 (20-99); Connecticut, 4 (20-99); East North Central—Wisconsin, 6 (20-99); West North Central—Iowa, 5 (250-499); South Dakota, 1 (1-19); South Atlantic—Delaware, 1 (20-99); West Virginia, 3 (250-499); South Carolina, 8 (250-499); East South Central—Tennessee, 17 (329); Mississippi, 3 (20-99); Mountain—Idaho, 1 (1-19); New Mexico, 4 (20-99); Arizona, 6 (143); Utah, 2 (20-99); Nevada, 1 (20-99); Pacific—Washington, 10 (20-99); Hawaii, 1 (1-19).

<sup>2</sup>This State was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.<sup>3</sup>Comparable data for 1958 are not available because of revisions in the Standard Industrial Classifications (see text for description of this change).

TABLE 3. Detailed Statistics: 1963

Item	Fabricated structural steel (SIC 3441)	Metal doors, sash, and trim (SIC 3442)	Boiler shop products (SIC 3443)	Sheet metal work (SIC 3444)	Architectural metal work (SIC 3446)	Miscellaneous metal work, n.e.c. (SIC 3449)
Primary product specialization ratio.....	.86	.88	.89	.88	.86	.89
Coverage ratio.....	.89	.94	.83	.78	.71	.68
Establishments, total.....number..	1,718	1,817	1,383	3,250	1,334	697
With 1 to 19 employees.....do....	901	1,189	782	2,495	1,161	451
With 20 to 99 employees.....do....	622	483	458	655	146	182
With 100-employees or more.....do....	195	145	143	100	27	64
Proprietors and working partners.....do....	561	665	562	1,763	1,002	335
All employees (average for the year).....do....	85,423	62,799	75,018	61,651	15,587	24,992
Payroll (all employees), total for year.....do....	527,220	324,796	465,372	373,284	86,956	145,042
Production workers:						
Average for the year.....number..	63,674	46,645	54,629	48,041	12,474	16,963
March.....do....	59,486	40,680	52,767	45,351	11,602	14,897
May.....do....	63,430	45,870	54,586	47,362	12,465	16,885
August.....do....	67,872	49,362	56,446	50,773	12,947	18,164
November.....do....	63,912	50,850	54,717	48,678	12,882	17,906
Man-hours.....1,000..	127,899	95,727	111,409	97,079	24,195	34,510
January-March.....do....	29,271	20,516	26,751	22,568	5,666	7,697
April-June.....do....	32,680	23,750	28,211	24,323	5,992	8,768
July-September.....do....	33,279	25,700	28,070	25,125	6,149	9,099
October-December.....do....	32,669	25,761	28,377	25,063	6,387	8,946
Wages.....\$1,000..	350,337	206,127	310,471	264,665	60,613	88,843
Cost of materials, etc., total.....do....	1,140,975	681,385	860,612	669,778	119,313	420,857
Materials, parts, containers, and supplies consumed.....do....	947,245	628,166	755,278	562,429	99,865	360,361
Cost of resales.....do....	132,489	31,176	53,463	67,774	6,223	49,660
Fuels consumed.....do....	5,499	3,578	7,220	4,429	693	1,708
Electric energy:						
Purchased:						
Quantity.....million kw.-hrs..	627	384	685	302	116	201
Cost.....\$1,000..	8,809	6,036	9,490	5,739	1,511	3,734
Generated less sold.....million kw.-hrs..	(Z)	(D)	1	3	1	(D)
Contract work.....\$1,000..	46,933	12,429	35,161	29,407	11,021	5,394
Value of shipments (including resales), total.....do....	1,916,048	1,253,814	1,622,988	1,303,670	269,256	704,166
Value of resales.....do....	165,992	45,549	68,090	88,088	7,776	66,073
Value added by manufacture, adjusted.....do....	814,805	570,370	770,064	632,384	148,763	283,427
Manufacturers' inventories:						
Beginning of year, total.....do....	463,213	177,335	316,752	184,766	40,481	107,173
Finished products.....do....	24,072	47,571	35,499	47,859	6,290	37,154
Work-in-process.....do....	272,188	38,177	155,376	52,169	15,957	23,054
Materials, supplies, fuel, etc.....do....	166,953	91,587	125,877	84,738	18,234	46,965
End of year, total.....do....	497,896	180,041	319,523	189,123	39,441	109,852
Finished products.....do....	28,091	46,213	36,556	46,758	6,468	36,715
Work-in-process.....do....	307,901	37,476	162,007	51,762	14,599	23,611
Materials, supplies, fuel, etc.....do....	161,904	96,352	120,960	90,603	18,374	49,526
Expenditures for plant and equipment, total.....do....	31,283	23,207	38,856	28,637	6,496	12,204
New, total.....do....	28,162	21,305	32,910	26,180	6,102	11,475
New structures and additions to plant.....do....	10,347	5,029	9,359	7,876	2,084	3,815
New machinery and equipment.....do....	17,815	16,276	23,551	18,304	4,018	7,660
Used plant and equipment.....do....	3,121	1,901	5,946	2,457	394	729
Selected operating ratios:						
Payroll/Total employment.....	6,172	5,172	6,203	6,055	5,579	5,804
Production workers/Total employment.....	.75	.74	.73	.78	.80	.68
Man-hours/Production workers.....	2,009	2,052	2,039	2,021	1,939	2,034
Production worker wages/Man-hours.....	2.74	2.15	2.79	2.73	2.51	2.57
Cost of materials and payrolls/Total value of shipments..	.87	.80	.82	.80	.77	.80
Cost of materials/Total value of shipments.....	.60	.54	.53	.51	.44	.60
Adjusted value added/Total employment.....	9,538	9,082	10,249	10,257	9,544	11,341
Salaries and wages/Adjusted value added.....	.65	.57	.61	.59	.58	.51

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

(D) Withheld to avoid disclosing figures for individual companies.

(Z) Less than 500 thousand KWH.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3441.—FABRICATED STRUCTURAL STEEL											
Establishments.....number..	1,718	273	262	366	430	192	142	35	13	4	1
All employees:											
Total.....do.....	85,423	519	1,818	5,131	13,219	13,304	22,544	12,493	7,636	8,759	(D)
Payroll.....\$1,000..	527,220	2,907	10,221	30,337	80,884	85,237	135,769	78,449	48,607	54,809	(D)
Value added, adjusted.....do....	814,805	7,286	18,803	49,119	133,618	141,728	225,512	112,407	61,953	64,379	(D)
Value of shipments.....do.....	1,916,048	14,056	38,069	104,861	294,820	319,855	557,576	302,730	146,641	137,440	(D)
Capital expenditures, new....do....	28,162	357	808	2,113	4,598	4,177	5,995	4,455	3,970	1,689	(D)
INDUSTRY 3442.—METAL DOOR, SASH, AND TRIM											
Establishments.....number..	1,817	528	310	351	338	145	104	31	9	1	-
All employees:											
Total.....do.....	62,799	1,076	2,140	4,921	10,484	10,035	16,217	10,887	7,039	(D)	-
Payroll.....\$1,000..	324,796	4,814	10,244	22,636	51,659	51,639	80,499	63,488	39,817	(D)	-
Value added, adjusted.....do....	570,370	10,274	18,690	40,685	90,443	95,412	141,670	99,565	73,631	(D)	-
Value of shipments.....do.....	1,253,814	24,404	43,913	95,301	218,726	209,709	310,791	211,276	139,694	(D)	-
Capital expenditures, new....do....	21,305	491	644	1,322	3,790	3,797	4,780	3,008	3,473	(D)	-
INDUSTRY 3443.—BOILER SHOP PRODUCTS											
Establishments.....number..	1,383	314	208	260	304	154	94	21	24	2	2
All employees:											
Total.....do.....	75,018	617	1,427	3,669	9,724	10,587	14,511	7,573	26,910	(D)	(D)
Payroll.....\$1,000..	465,372	4,181	7,386	20,829	58,069	64,093	87,709	48,132	174,973	(D)	(D)
Value added, adjusted.....do....	770,064	9,078	13,423	35,159	98,252	106,477	136,738	83,015	287,922	(D)	(D)
Value of shipments.....do.....	1,622,988	16,028	25,609	70,529	215,064	234,997	312,278	180,852	567,631	(D)	(D)
Capital expenditures, new....do....	32,910	1,203	557	1,242	4,093	4,878	7,712	2,892	9,533	(D)	(D)
INDUSTRY 3444.—SHEET METAL WORK											
Establishments.....number..	3,250	1,305	587	603	478	177	80	15	5	-	-
All employees:											
Total.....do.....	61,651	2,395	3,891	8,215	14,653	12,204	11,542	5,403	3,348	-	-
Payroll.....\$1,000..	373,284	12,258	21,000	46,513	88,985	74,708	71,427	33,049	25,344	-	-
Value added, adjusted.....do....	632,384	25,036	37,769	82,759	146,261	124,024	115,315	64,111	37,109	-	-
Value of shipments.....do.....	1,303,670	45,046	72,241	163,883	298,021	245,049	244,930	133,905	100,595	-	-
Capital expenditures, new....do....	26,180	1,347	1,508	3,105	5,459	4,348	3,757	5,107	1,549	-	-
INDUSTRY 3446.—ARCHITECTURAL METAL WORK											
Establishments.....number..	1,334	853	179	129	107	39	22	4	1	-	-
All employees:											
Total.....do.....	15,587	1,553	1,115	1,768	3,246	2,711	2,979	2,215	(D)	-	-
Payroll.....\$1,000..	86,956	7,075	5,564	9,623	18,313	15,750	17,317	13,314	(D)	-	-
Value added, adjusted.....do....	148,763	16,222	10,527	16,393	30,484	27,101	29,711	18,325	(D)	-	-
Value of shipments.....do.....	269,256	27,844	18,271	28,161	55,153	50,932	53,519	35,376	(D)	-	-
Capital expenditures, new....do....	6,102	667	491	595	1,225	907	1,655	562	(D)	-	-
INDUSTRY 3449.—MISCELLANEOUS METAL WORK, N.E.C.											
Establishments.....number..	697	266	84	101	120	62	45	14	5	-	-
All employees:											
Total.....do.....	24,992	412	569	1,437	3,819	4,401	6,884	4,663	2,807	-	-
Payroll.....\$1,000..	145,042	2,507	2,777	7,396	20,568	24,599	41,275	29,501	16,419	-	-
Value added, adjusted.....do....	283,427	5,357	5,535	14,288	37,097	46,688	96,407	50,150	27,905	-	-
Value of shipments.....do.....	704,166	10,099	11,642	29,739	111,597	131,251	233,407	114,290	62,141	-	-
Capital expenditures, new....do....	11,475	246	264	449	1,780	1,673	4,036	1,657	1,370	-	-

Note: Detailed figures may not add to the totals because of independent rounding.

- Represents zero. (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

<sup>1</sup>Includes capital expenditures of \$1-2 million for plants under construction but not in operation, the exact amount is withheld to avoid disclosing information for individual companies.

**TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
						Col. B Col. B+C				Col. B Col. F
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(percent)	(\$1,000)	(\$1,000)	(\$1,000)	(percent)
		A	B	C	D	E	F	G	H	I
3441	Fabricated structural steel.....1963..	1,916,048	1,432,515	236,844	246,689	86	1,603,982	1,432,515	171,467	89
	1958..	1,901,106	1,455,835	223,840	221,431	87	1,602,126	1,455,835	146,291	91
3442	Metal doors, sash, and trim.....1963..	1,253,814	1,045,535	135,888	72,391	88	1,106,662	1,045,535	61,127	94
	1958..	1,037,371	886,920	82,574	67,877	91	951,661	886,920	64,741	93
3443	Boiler shops products .....1963..	1,622,988	1,310,479	168,329	144,180	89	1,580,802	1,310,479	270,323	83
	1958..	1,670,007	1,347,173	168,376	154,458	89	1,613,999	1,347,173	266,826	83
3444	Sheet metal work.....1963..	1,303,670	1,030,649	139,393	133,628	88	1,324,673	1,030,649	294,024	78
	1958..	1,077,811	827,471	111,683	138,657	88	1,008,471	827,471	181,000	82
3446	Architectural metal work <sup>1</sup> .....1963..	269,256	218,854	35,979	14,423	86	306,229	218,854	87,375	71
3449	Miscellaneous metal work, n.e.c. <sup>1</sup> 1963..	704,166	541,703	67,768	94,695	89	793,330	541,703	251,627	68

Note: See table 1, Explanation of terms, for primary product specialization and coverage ratios.

<sup>1</sup>Comparable data for 1958 are not available because of revisions in the Standard Industrial Classification (see text for description of this change).



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Fabricated structural metal (SIC 3441)	Metal doors, sash, and trim (SIC 3442)	Boiler shop products (SIC 3443)	Sheet metal work (SIC 3444)	Architectural metal work (SIC 3446)	Miscellaneous metal work, n.e.c. (SIC 3449)	Blast furnaces and steel mills (SIC 3312)	Heating equipment, except electric (SIC 3433)	Ship building and repairing (SIC 3731)	Other industries
344--	Total shipments of the industry.....	(X)	1,916,048	1,253,814	1,622,988	1,303,670	269,256	704,166	(X)	(X)	(X)	(X)
3441-	Structural metal products.....	(X)	1,613,946	1,133,067	1,366,487	1,096,241	238,875	591,466	150,072	36,301	39,851	(X)
34411-	Fabricated structural steel, total.....	1,603,982	1,432,515	6,384	32,386	12,249	7,533	11,544	(D)	(D)	(D)	60,585
34411	Fabricated structural metal for buildings.....	984,049	894,472	5,136	20,738	10,521	(D)	10,479	(D)	(1)	6,826	233,685
34412	Fabricated structural metal for bridges.....	224,879	209,943	2,426	2,426	445	(D)	(D)	(D)	(D)	(D)	37,702
34413	Other fabricated structural metal.....	287,248	221,906	(D)	9,073	(D)	2,408	979	(D)	(D)	25,823	418,504
34410	Fabricated structural metal, n.s.k.....	107,608	106,194	-	149	(D)	(D)	(D)	(D)	(D)	-	694
3442-	Metal doors, sash, and trim, total.....	1,106,602	11,092	1,045,535	(D)	4,886	2,454	6,507	-	(D)	-	35,271
34421	Metal doors and frames (except storm doors).....	289,581	7,014	264,720	(D)	(D)	1,246	1,816	-	(D)	-	513,138
34422	Metal window sash and frames (except storm sash).....	308,781	3,687	289,257	(D)	(D)	865	3,847	-	(D)	-	610,099
34423	Metal molding and trim and store fronts.....	116,800	(D)	108,986	(D)	898	(D)	(D)	-	(D)	-	5,593
34424	Metal combination screen and storm sash and doors.....	221,353	(D)	217,685	(D)	1,717	166	(D)	-	(D)	-	1,656
34425	Metal window and door screens (except combination), and metal window strip.....	56,676	(D)	52,797	-	350	(D)	(D)	-	(D)	-	3,513
34420	Metal doors, sash, and trim, n.s.k.....	113,471	-	112,090	-	(D)	(D)	-	-	-	-	1,272
3443-	Boiler shop products, total.....	1,580,802	45,219	154	1,310,479	20,328	4,257	954	(D)	21,729	(D)	163,078
34431	Heat exchangers and steam condensers.....	374,197	(D)	-	106,916	(D)	-	-	-	(D)	(D)	747,737
34432	Fabricated steel plate.....	368,093	31,418	(D)	271,692	6,473	4,110	(D)	5,431	-	-	854,694
34433	Steel power boilers, parts and attachments (over 15 p.s.i. steam working pressure).....	340,739	(D)	-	318,582	(D)	-	-	-	18,625	-	(D)
34434	Gas cylinders.....	46,348	(D)	(D)	30,116	(D)	-	(D)	(D)	-	-	9,515
34435	Metal tanks, complete at factory (standard line pressure).....	104,442	3,117	(D)	88,123	(D)	(D)	(D)	(D)	1,889	(D)	9,357
34437	Metal tanks, complete at factory (standard line, nonpressure).....	145,586	2,031	(1)	118,083	9,029	(2)	(D)	-	(D)	(D)	10,157,764
34438	Metal tanks and vessels, custom fabricated at the factory.....	197,109	7,056	(D)	173,370	(D)	(D)	-	-	(D)	-	11,151,879
34439	Metal tanks and vessels, custom fabricated and field erected	123,278	(D)	-	118,967	577	(D)	(D)	-	(D)	-	3,531
34430	Fabricated plate work (boiler shops), n.s.k.....	88,555	(D)	-	84,530	(1)	(D)	(D)	-	(D)	(D)	141,541
3444-	Sheet metal work, total.....	1,324,673	31,094	32,457	20,042	1,030,649	1,353	14,230	41,560	11,747	-	124,593
34441	Sheet metal roofing, siding, and drainage equipment.....	306,172	15,408	15,917	(D)	188,978	(D)	7,450	31,465	-	-	13,802
34442	Culverts, flumes, irrigation pipes.....	137,527	7,782	(D)	11,024	101,508	(D)	(D)	(D)	11,440	-	2,997
34443	Other sheet metal work.....	731,750	7,568	15,767	7,423	595,854	824	(D)	(D)	(D)	-	14,216,27
34440	Sheet metal work, n.s.k.....	149,224	336	(D)	(D)	144,309	(D)	(D)	-	(D)	-	30,272
34460	Ornamental and structural metal work.....	306,229	30,688	6,900	(D)	7,897	218,854	16,528	(D)	(D)	-	15,14,833
3449-	Miscellaneous metal work, total.....	793,330	63,338	41,637	1,374	20,232	4,424	541,703	90,223	127	-	16,27,359
34492	Prefabricated and portable metal buildings and parts.....	224,549	(D)	(D)	1,302	(D)	(D)	182,344	-	(D)	-	267
34493	Miscellaneous metal building materials.....	506,500	56,677	31,357	(D)	(D)	(D)	299,529	90,223	(D)	-	(X)
34490	Miscellaneous metal work, n.s.k.....	62,281	(D)	(D)	(D)	(D)	775	59,830	-	(D)	-	(X)
	Other products.....	(X)	55,413	48,356	112,321	71,820	15,870	18,005	(X)	(X)	(X)	(X)
24315	Other wood doors, including garage, screen, storm and combination screen and storm, toilet and louvre.....	(X)	-	2,107	-	-	-	-	(X)	(X)	(X)	(X)
25144	Other metal household furniture.....	(X)	-	(D)	-	2,659	-	-	(X)	(X)	(X)	(X)
29523	Asphalt and tar roofing and siding products.....	(X)	-	-	-	2,837	-	-	(X)	(X)	(X)	(X)
32316	Other glass products.....	(X)	-	3,357	-	(D)	-	(D)	(X)	(X)	(X)	(X)
34294	Builders' hardware.....	(X)	(D)	2,762	(D)	(D)	-	-	(X)	(X)	(X)	(X)
34335	Steel heating boilers (15 p.s.i. and under) except parts.....	(X)	(D)	3,631	(D)	(D)	-	-	(X)	(X)	(X)	(X)
34336	Other heating equipment (except electric) and parts for nonelectric heating equipment.....	(X)	-	420	3,786	1,020	-	-	(X)	(X)	(X)	(X)
34612	Job stampings, except automotive.....	(X)	(D)	1,802	(D)	3,087	-	(D)	(X)	(X)	(X)	(X)
34618	Other stamped and pressed metal and products.....	(X)	-	(D)	2,714	2,737	-	-	(X)	(X)	(X)	(X)
34815	Nonferrous wire cloth and other woven nonferrous wire products, not made by wire drawers.....	(X)	-	2,087	-	-	-	-	(X)	(X)	(X)	(X)

See footnotes at end of table

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Fabricated structural metal (SIC 3441)	Metal doors, sash, and trim (SIC 3442)	Boiler shop products (SIC 3443)	Sheet metal work (SIC 3444)	Architectural metal work (SIC 3446)	Miscellaneous metal work, n.e.c. (SIC 3449)	Blast furnaces and steel mills (SIC 3312)	Heating equipment, except electric (SIC 3433)	Ship building and repairing (SIC 3731)	Other industries
	Other products—Continued											
34990	Other fabricated wire products, not produced by wire drawers.	(X)	2,108	(D)	(D)	1,486	(D)	5,561	(X)	(X)	(X)	(X)
35991	Fabricated metal products, n.e.c.	(X)	786	2,220	2,868	9,026	1,361	1,187	(X)	(X)	(X)	(X)
35991	Chemical manufacturing industries machinery and equipment.	(X)	(D)	(D)	2,996	(D)	-	-	(X)	(X)	(X)	(X)
35995	Other special industrial machinery and equipment.	(X)	948	-	4,676	(D)	-	-	(X)	(X)	(X)	(X)
35990	General industrial machinery and equipment, n.e.c.	(X)	(D)	(D)	12,062	(D)	(D)	(D)	(X)	(X)	(X)	(X)
35990	Carburetors, pistons, and other machine shop products.	(X)	(D)	(D)	1,310	451	(D)	(D)	(X)	(X)	(X)	(X)
36392	Household water heaters, except electric.	(X)	4,696	-	3,156	(D)	-	-	(X)	(X)	(X)	(X)
37150	Truck trailers.	(X)	(D)	-	2,432	(D)	-	-	(X)	(X)	(X)	(X)
39881	Metal caskets and coffins completely lined and trimmed.	(X)	(D)	-	2,276	(D)	-	-	(X)	(X)	(X)	(X)
	Other secondary products <sup>14</sup> .	(X)	1,846,875	1,933,601	20,565,270	21,48,517	14,509	22,11,257	(X)	(X)	(X)	(X)
	Miscellaneous receipts.	(X)	246,689	72,391	144,180	133,628	14,423	94,695	(X)	(X)	(X)	(X)
	Contract and commission work.	(X)	17,321	5,511	21,050	20,775	883	3,886	(X)	(X)	(X)	(X)
	Scrap.	(X)	4,031	3,861	19,038	2,263	452	1,092	(X)	(X)	(X)	(X)
	Installation work by manufacturing plant employees.	(X)	47,133	11,356	14,636	14,522	3,303	14,876	(X)	(X)	(X)	(X)
	Resales.	(X)	165,992	45,549	68,090	88,080	7,776	66,073	(X)	(X)	(X)	(X)
	Other.	(X)	12,212	6,114	31,346	7,980	2,009	6,765	(X)	(X)	(X)	(X)

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.  
(X) Not applicable.  
<sup>1</sup>Less than \$100 thousand.  
<sup>2</sup>Includes \$3,545 thousand produced in industry 3321, Gray Iron Foundries; and an amount between \$2 and \$5 million each produced in industry 3531, Construction Machinery; and industry 3535, Conveyors.  
<sup>3</sup>Includes an amount between \$2 and \$5 million each produced in industry 3491, Metal Barrels, Drums, and Pails; and industry 3642, Lighting Fixtures.  
<sup>4</sup>Includes an amount between \$5 and \$10 million produced in industry 3312, Blast Furnaces and Steel Mills; and amount between \$2 and \$5 million produced in industry 3461, Metal Stampings.  
<sup>5</sup>Includes \$2,914 thousand produced in industry 2431, Millwork Plants; and \$2,213 thousand produced in industry 2542, Metal Partitions and Fixtures.  
<sup>6</sup>Includes an amount between \$5 and \$10 million produced in industry 3352, Aluminum Rolling and Drawing.  
<sup>7</sup>Includes an amount between \$2 and \$5 million each produced in industry 3321, Gray Iron Foundries; industry 3519, Internal Combustion Engines; industry 3561, Pumps and Compressors; industry 3585, Refrigeration Machinery; and industry 3599, Miscellaneous Machinery; also an amount between \$5 and \$10 million produced in industry 3717, Motor Vehicles and Parts; and also an amount between \$10 and \$15 million produced in industry 3511, Steam Engines and Turbines.  
<sup>8</sup>Includes \$2,454 thousand produced in industry 3559, Special Industry Machines, N.E.C.; also an amount between \$2 and \$5 million each produced in industry 3461, Metal Stampings; industry 3523, Construction Machinery; and industry 3821, Mechanical Measuring Devices; also an amount between \$5 and \$10 million each produced in industry 3511, Steam Engines and Turbines.  
<sup>9</sup>Includes an amount between \$2 and \$5 million each produced in industry 1929, Ammunition, N.E.C.; and industry 3585, Refrigeration Machinery.  
<sup>10</sup>Includes an amount between \$2 and \$5 million each made in industry 3533, Oil Field Machinery; and industry 3351, Food Products Machinery.  
<sup>11</sup>Includes an amount between \$2 and \$5 million made in industry 3494, Valves and Pipe Fittings.  
<sup>12</sup>Includes \$34,360 thousand produced in industry 3552, Aluminum Rolling and Drawing; \$3,369 thousand produced in industry 3461, Metal Stampings; and also an amount between \$2 and \$5 million produced in industry 3497, Metal Foil and Leaf.  
<sup>13</sup>Includes \$2,240 thousand produced in industry 2542, Metal Partitions and Fixtures; \$5,402 thousand produced in industry 2591, Venetian Blinds and Shades; \$7,881 thousand produced in industry 3461, Metal Stampings; \$8,308 thousand produced in industry 3585, Refrigeration Machinery; and \$2,055 thousand produced in industry 3717, Motor Vehicles and Parts; also an amount between \$2 and \$5 million each produced in industry 3079, Plastic Products, N.E.C.; industry 3494, Valves and Pipe Fittings; industry 3576, Scales and Balances; and industry 3639, Household Appliances, N.E.C.; and also an amount between \$5 and \$10 million produced in industry 3822, Automatic Temperature Controls.  
<sup>14</sup>Includes \$2,283 thousand produced in industry 3662, Radio, TV Communication Equipment; and also an amount between \$2 and \$5 million produced in industry 3535, Conveyors; and industry 3564, Blowers and Fans.  
<sup>15</sup>Includes an amount between \$5 and \$10 million produced in industry 3352, Aluminum Rolling and Drawing; and also an amount between \$2 and \$5 million produced in industry 3729, Aircraft Equipment, N.E.C.  
<sup>16</sup>Includes an amount between \$2 and \$5 million each produced in industry 3531, Construction Machinery; and industry 3561, Pumps and Compressors.  
<sup>17</sup>Totals include specific product classes listed as "Other products" for which the symbol "D" appears in the table above.  
<sup>18</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 35361, Hoists; 35672, Fuel fired industrial furnaces and ovens; and 36425, Outdoor lighting equipment.  
<sup>19</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 25420, Metal partitions, shelving, lockers, and office and store fixtures; 29990, Products of petroleum and coal, n.e.c.; 35340, Elevators and moving stairways.  
<sup>20</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 19293, Ammunition, n.e.c.; 19990, Ordnance and accessories, n.e.c.; 34332, Warm air furnaces (except floor and wall) except parts; 34913, All other metal barrels, including beer barrels and fluid milk shipping containers; 34941, Metal valves for piping systems (except plumbing and heating valves); 35511, Dairy and milk products plant machinery and equipment, including dairy bottling machines; 35614, Air and gas-compressors, except refrigerator compressors; 37292, Guided missile components and subassemblies, n.e.c.; and 37422, Freight train cars, new.  
<sup>21</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 35641, Industrial fans and blowers; 35642, Dust collection, air purification equipment and air washers; 35673, High frequency induction and dielectric heating equipment and parts, attachments and components; and 35690, General industrial machinery, n.e.c.  
<sup>22</sup>Includes product class 36795, Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks), which totals more than \$2 million but is withheld to avoid disclosing individual company figures.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3441- --	FABRICATED STRUCTURAL STEEL, TOTAL.....	.....	(X)	1,603,982	(X)	1,602,126
34411 --	Fabricated structural metal for buildings.....	.....	(X)	984,049	(X)	930,399
34411 21	Iron and steel (for sale to other companies): <sup>1</sup>					
34411 25	Industrial.....	Short tons.....	996,877	306,883	899,069	267,802
	Commercial, residential, and institutional.....	...do.....	859,141	242,974	1,018,993	263,742
34411 27	Public utilities:					
	Quantity reported.....	...do.....	105,480	34,389	173,776	56,128
	Quantity not reported.....	.....	(X)	-	(X)	16,766
	Iron and steel (for installation by same company on the site of construction):					
34411 61	Industrial.....	Short tons.....	452,286	160,129	281,612	100,089
34411 65	Commercial, residential, and institutional.....	...do.....	538,511	165,590	319,885	103,653
34411 67	Public utilities:					
	Quantity reported.....	...do.....	30,286	10,853	37,889	13,768
	Quantity not reported.....	.....	(X)	1,896	(X)	3,230
34411 71	Aluminum.....	Short tons.....	12,480	18,918	(NA)	(NA)
34411 00	Fabricated structural metal for buildings, n.s.k.....	.....	(X)	42,417	(X)	<sup>2</sup> 105,221
34412 --	Fabricated structural metal for bridges.....	Short tons.....	(X)	224,879	843,511	279,624
34412 11	Iron and steel (for sale to other companies):					
34412 15	Highway bridges, trestles and viaducts.....	...do.....	506,476	136,068	659,091	219,183
	Railway bridges, trestles and viaducts.....	...do.....	20,167	6,045	54,225	18,978
34412 51	Iron and steel bridges, trestles and viaducts (highway and railway for installation by same company on the site of construction).....	...do.....	191,564	69,344	130,195	41,463
34412 71	Aluminum.....	.....	(NA)	3,080	(NA)	(NA)
34412 00	Fabricated structural metal for bridges, n.s.k.....	.....	(X)	10,342	(X)	( <sup>2</sup> )
34413 --	Other fabricated structural metal.....	.....	(X)	287,248	(X)	261,992
34413 11	Iron and steel (for sale to other companies): <sup>1</sup>					
	For ships, boats, and barges:					
	Quantity reported.....	Short tons.....	14,626	8,956	44,590	20,928
	Quantity not reported.....	.....	(X)	1,138	(X)	4,347
34413 41	For transmission towers, substations, radio antenna towers, and supporting structures.....	Short tons.....	151,959	50,460	160,936	59,948
34413 51	Other fabricated structural iron and steel, excluding pressure vessels and storage tanks, fabricated reinforcing bars, bar joists, fabricated metal buildings, steel flooring and roof decks, which are separate:					
	Quantity reported.....	...do.....	306,477	108,974	297,500	103,829
	Quantity not reported.....	.....	(X)	13,150	(X)	18,467
	Iron and steel (for installation by same company on the site of construction or for shipbuilding):					
34413 61	For ships, boats and barges.....	.....	(NA)	<sup>3</sup> 32,500	(NA)	<sup>3</sup> 7,712
34413 71	For transmission towers, substations, radio antenna towers, and supporting structures.....	Short tons.....	57,748	23,333	3,543	2,628
34413 81	Other fabricated structural iron and steel, excluding pressure vessels and storage tanks, fabricated reinforcing bars, bar joists, fabricated metal buildings, steel flooring and roof decks, which are separate:					
	Quantity reported.....	...do.....	59,759	22,527	64,366	36,495
	Quantity not reported.....	.....	(X)	7,713	(X)	7,638
34413 83	Aluminum:					
34413 85	For ships, boats, and barges.....	.....	(NA)	<sup>3</sup> 516	(NA)	(NA)
	For transmission towers and other structures, excluding tanks, fabricated metal buildings, etc., which are separate.....	.....	(NA)	1,281	(NA)	(NA)
34413 98	Structural metal, other than iron, steel, or aluminum.....	.....	(NA)	1,644	(NA)	(NA)
34413 00	Other fabricated structural metal, n.s.k.....	.....	(X)	15,056	(X)	( <sup>2</sup> )
34410 00	Fabricated structural metal, n.s.k.....	.....	(X)	107,806	(X)	130,111

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3442- --	METAL DOORS, SASH, FRAMES, AND MOLDING AND TRIM, TOTAL.....	.....	(X)	1,106,662	(X)	951,661
34421 --	Metal doors and frames (except storm doors).....	.....	(X)	289,581	(X)	192,389
	Industrial:					
	Overhead:					
34421 13	Aluminum.....	No. of units..	12,186	3,678	4 29,759	4 12,286
34421 20	Iron and steel, including stainless steel doors.....	..do.....	61,432	16,781		
	All other:					
34421 14	Aluminum.....	..do.....	219,878	18,179	4 5171,358	4 23,722
34421 21	Iron and steel, including stainless steel doors:					
	Quantity reported.....	..do.....	228,311	19,549		
	Quantity not reported.....	..do.....	(X)	8,754		
	Residential:					
	Garage:					
34421 15	Aluminum.....	..do.....	192,867	9,581	4 113,075	4 5,601
34421 22	Iron and steel, including stainless steel doors.....	..do.....	126,869	8,141		
34421 16	Sliding (glass, patio type), aluminum.....	..do.....	553,945	32,079	4 558,559	4 21,416
	All other, excluding shower doors and tub enclosures:					
34421 18	Aluminum.....	..do.....	438,855	11,753		
34421 29	Iron and steel, including stainless steel doors.....	..do.....	183,359	5,216		
	Commercial and institutional, excluding shower doors and tub enclosures:					
34421 19	Aluminum.....	..do.....	154,657	13,372	4 6155,701	4 24,523
34421 32	Iron and steel, including stainless steel doors:					
	Quantity reported.....	..do.....	602,835	35,799	532,604	34,930
	Quantity not reported.....	..do.....	(X)	7,628		
34421 39	Metal doors other than steel or aluminum.....	No. of units..	(NA)	5,295	(4)	(4)
	Metal door frames, including trim sold as integral part of door frame:					
34421 42	Aluminum.....	..do.....	272,026	19,971	2,080,377	36,443
34421 44	Steel.....	..do.....	2,798,022	44,638		
34421 45	Shower doors and tub enclosures.....	..do.....	467,832	9,725	(NA)	(NA)
34421 00	Metal doors and door frames, n.s.k.....	..do.....	(X)	19,442	(X)	18,533
34422 --	Metal window sash and frames (except storm sash).....	.....	(X)	308,781	(X)	285,311
	Steel:					
	Residential:					
34422 12	Casement.....	.....	(NA)	8,128		
34422 19	All other.....	.....	(NA)	8,841		
	Other, including commercial, industrial, etc.:				(NA)	94,172
34422 31	Casement.....	.....	(NA)	3,192		
34422 32	Projected.....	No. of units..	170,353	3,998		
34422 39	All other.....	.....	(NA)	14,489		
	Aluminum:					
	Residential:					
34422 21	Single and double-hung.....	No. of units..	4,223,867	58,716	7 7,782,207	171,299
34422 22	Awning.....	..do.....	1,540,563	20,817		
34422 23	Jalousie.....	..do.....	(NA)	19,387		
34422 24	Horizontal sliding.....	..do.....	(NA)	44,917		
34422 29	All other.....	..do.....	(NA)	18,850		
	Other, including commercial, industrial, etc.:					
34422 41	Single and double-hung.....	..do.....	(NA)	24,351		
34422 42	Awning.....	..do.....	(NA)	8,519		
34422 43	Projected.....	..do.....	856,292	33,881		
34422 49	All other.....	..do.....	(NA)	18,828		
34422 98	Metal window sash and frames, other than steel or aluminum.....	..do.....	(NA)	508		
34422 00	Metal doors, sash, frames, molding, and trim, n.s.k.....	..do.....	(X)	21,359		
34423 --	Metal molding and trim and store fronts.....	.....	(X)	116,800	(X)	97,283
	Metal molding and trim:					
34423 21	Steel.....	.....	(X)	32,123	(X)	78,170
34423 25	Aluminum.....	.....	(X)	71,420		
34423 51	Metal store fronts, sold complete at factory.....	.....	(X)	6,726	(X)	12,719
34423 00	Metal molding and trim and store fronts, not specified by type..	.....	(X)	6,531	(X)	6,394

See footnotes at end of table.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
	METAL DOORS, SASH, FRAMES, AND MOLDING AND TRIM—Continued					
34424 --	Metal combination screen and storm sash and doors.....		(X)	221,353	(X)	231,510
34424 11	Metal storm sash.....		(NA)	9,252	(X)	6,733
34424 21	Metal combination screen and storm sash: Steel:					
	Quantity reported.....	No. of units..	161,115	2,739	89,969,302	123,352
	Quantity not reported.....	...do.....	(X)	2,625		
34424 25	Aluminum:					
	Quantity reported.....	...do.....	9,106,349	89,913	9437,439	5,605
	Quantity not reported.....	...do.....	(X)	16,067		
34424 41	Metal combination screen and storm doors:					
34424 45	Steel.....	...do.....	145,107	3,610	2,736,065	62,101
	Aluminum.....	...do.....	3,329,517	65,228		
34424 00	Metal storm sash, combination screen and storm sash and doors and parts, n.s.k.....		(X)	31,919	(X)	39,324
34425 --	Metal window and door screens (except combination) and metal weatherstrip.....		(X)	56,676	(X)	64,611
34425 11	Screen doors, metal.....	No. of units..	446,402	4,576	9437,439	5,605
34425 21	Window screens, with metal frames including tension and roll types: Steel:					
	Quantity reported.....	...do.....	608,811	1,946	1014,799,049	41,309
	Quantity not reported.....	...do.....	(X)	1,088		
34425 25	Aluminum:					
	Quantity reported.....	...do.....	11,594,738	23,612	11263,042	12,868
	Quantity not reported.....	...do.....	(X)	5,292		
34425 51	Weatherstrip, metal:					
	Quantity reported.....	...do.....	1187,297	13,639	11263,042	4,829
	Quantity not reported.....	...do.....	(X)	3,731		
34425 00	Metal window and door screens, n.s.k.....		(X)	2,792	(X)	
34420 00	Metal doors, sash, frames, molding, and trim, n.s.k.....		(X)	113,471	(X)	80,557
3443- --	FABRICATED PLATE WORK (BOILER SHOPS), TOTAL.....		(X)	1,580,802	(X)	1,613,999
34431 --	Heat exchangers and steam condensers.....		(X)	160,548	(X)	187,243
34431 11	Heat exchangers, closed types, industrial:					
	Bare tube.....	1,000 sq. ft. of heat transfer surface..	(NA)	91,241	14,635	103,440
34431 15	Fin tube.....		(NA)	40,445	(NA)	32,769
34431 51	Steam condensers.....		(NA)	23,413	(NA)	48,509
34431 00	Heat exchangers and steam condensers, n.s.k.....		(X)	5,449	(X)	2,525
34432 --	Fabricated steel plate <sup>12</sup> .....		(X)	374,197	(X)	13343,022
34432 31	Stacks (smoke or other).....		(NA)	5,803	(NA)	5,257
34432 51	Weldments.....		(NA)	61,518	(NA)	40,878
34432 11	Fabricated steel plate (factory assembled or joined and prepared for field erection): For large diameter pipe (over 36" diameter for pipe lines, penstocks, tunnel linings, etc.).....	Short tons....	210,185	70,653	127,466	41,164
34432 98	Fabricated steel plate for other purposes:					
	Quantity reported.....	...do.....	435,878	137,388	282,900	150,224
	Quantity not reported.....	...do.....	(X)	79,744	(X)	75,577
34432 00	Fabricated steel plate, n.s.k.....		(X)	19,091	(X)	1329,922

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers				
			1963		1958		
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)	
3443- --	FABRICATED PLATE WORK (BOILER SHOPS)—Continued						
34433 --	Steel power boilers, parts, and attachments (over 15 p.s.i. steam working pressure).....		(X)	340,739	(X)	409,549	
	Stationary power boilers: <sup>14</sup>						
	Water tube:						
	100,000 lbs./hr. and under:						
34433 11	Over 15 to 449 p.s.i. steam working pressure.....	No. of units..	1,674	34,053	152,152	15276,324	
34433 13	450 p.s.i. steam working pressure and over.....	..do.....	67	6,417			
	100,000 lbs./hr. to 250,000 lbs./hr.....	..do.....	78	13,052			
34433 21	Over 15 to 449 p.s.i. steam working pressure.....	..do.....					
34433 23	450 p.s.i. steam working pressure and over.....	..do.....					
	250,000 lbs./hr. and over.....	..do.....	104	151,121			
34433 31	Over 15 to 449 p.s.i. steam working pressure.....	..do.....					
34433 33	450 p.s.i. steam working pressure and over.....	..do.....					
	Fire tube:						
34433 36	Horizontal return tabular.....	..do.....	1,535	4,548	157,247	1520,185	
34433 37	Scotch type.....	..do.....	4,317	25,092			
34433 38	Other types.....	..do.....	1,558	2,044			
34433 41	Marine boilers.....	..do.....	(X)	103,243	(15)	(15)	
34433 52	Parts and attachments for steel power boilers (sold separately).....	..do.....			(X)	109,063	
34433 00	Steel power boilers, parts, and attachments (over 15 p.s.i. steam working pressure), n.s.k.....	..do.....			(X)	3,977	
34434 --	Gas cylinders <sup>12</sup> .....		(X)	46,348	(X)	1341,274	
34434 11	For liquefied petroleum gas.....	Number.....	314,124	10,796	r 1,034,549	5,560	
34434 19	Other gas cylinders.....	..do.....	1,002,772	33,287		23,836	
34434 00	Gas cylinders, n.s.k.....	..do.....	(X)	2,265		1311,878	
34435 --	Metal tanks, complete at factory (standard line and pressure) <sup>12</sup> ...		(X)	104,442	(X)	16132,466	
34435 12	Truck tanks for delivery of liquefied petroleum gas (butane, propane, etc.).....		(NA)	8,170	(NA)	3,891	
	All other liquefied petroleum gas tanks (under 3,000 gallon capacity):						
34435 22	Carbon steel.....	No. of units..	226,826	34,506	17170,550	35,887	
34435 24	Alloy and stainless steel.....	..do.....	(NA)	4,104			
34435 26	Aluminum.....	..do.....	(NA)	4,104			
34435 35	Air receivers:						
	Quantity reported.....	..do.....	70,523	4,786	84,320	5,641	
	Quantity not reported.....	..do.....	(X)	2,464	(X)	737	
34435 38	Other pressure tanks, including anhydrous ammonia under 3,000 gallon capacity, but excluding range boilers, expansion tanks, hot-water storage tanks and tanks for water heaters sold separately.....		(X)	36,490	(X)	14,391	
34435 00	Metal tanks, complete at factory (standard line and pressure), n.s.k.....		(X)	13,922	(X)	1671,919	
34437 --	Metal tanks, complete at factory (standard line, nonpressure) <sup>12</sup> ...		(X)	145,586	(X)	16136,540	
	Nonpressure storage tanks:						
	Bulk storage, including above ground, underground and inside storage tanks:						
	Carbon steel:						
34437 11	6,000 gallon or less capacity.....	No. of units..	236,576	39,699	210,673	44,398	
34437 13	Over 6,000 gallon capacity.....	..do.....	29,141	29,605	21,917	20,880	
34437 14	Alloy and stainless steel, nickel, etc., excluding aluminum: Dairy processing plant storage tanks for milk (stainless steel).....	..do.....	6,301	12,606	4,207	7,607	
34437 16	Other.....	..do.....	(NA)	9,150			
34437 18	Aluminum.....	..do.....	1,099	2,127			
34437 21	Basement oil storage tanks.....	..do.....	198,929	5,797	277,349	6,885	
34437 25	Oilfield boltex.....	..do.....	1,390	2,828	5,739	10,553	
34437 27	Farm storage tanks with or without supports.....	..do.....	(NA)	4,486	(NA)	11,191	
	Truck tanks (for delivery of fluids, excluding trailer tanks):						
	For liquid fuels, excluding liquefied petroleum:						
34437 43	Gas tanks.....	No. of units..	3,124	8,494	3,353	9,281	
34437 45	For other fluids.....	..do.....	(NA)	4,504	(NA)	7,738	
34437 71	Septic tanks, metal:						
	Quantity reported.....	No. of units..	66,392	3,419	63,680	2,940	
	Quantity not reported.....	..do.....	(X)	1,442	(X)	753	
34437 98	Other nonpressure tanks, including tanks for trailers.....		(NA)	15,309	(NA)	14,314	
34437 00	Metal tanks, complete at factory (standard line, nonpressure), n.s.k.....		(X)	6,120	(X)	(16)	

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3443- --	FABRICATED PLATE WORK (BOILER SHOPS)—Continued					
34438 --	Metal tanks and vessels, custom fabricated at the factory <sup>12</sup> .....		(X)	197,109	(X)	149,493
	Pressure vessels and tanks (over 24" outside diameter and not less than 5 cu. ft. capacity) including process vessels, tanks and kettles for refineries, chemical plants, paper mills and other processing industries (except tanks for liquefied petroleum gas):					
	Carbon steel:					
34438 03	3/4" wall thickness and under.....	Short tons.....	123,516	58,740	18130,910	91,821
34438 05	Over 3/4" wall thickness.....	do.....	(NA)	28,593		
34438 06	Alloy and stainless steel, nickel, etc., excluding aluminum...	do.....	19,453	31,002	1916,077	27,518
34438 08	Aluminum.....	do.....	2,518	5,909		
34438 15	Liquefied petroleum gas tanks, 3,000 gallon capacity and over...	do.....	33,777	21,317	16,288	9,023
34438 18	All other tanks, and vessels, custom fabricated at the factory, including anhydrous ammonia tanks 3,000 gallon capacity and over.....		(X)	49,893	(X)	21,131
34438 00	Metal tanks and vessels custom fabricated at the factory, n.s.k.		(X)	1,654	(X)	-
34439 --	Metal tanks and vessels, custom fabricated and field erected <sup>12</sup> ....		(X)	123,278	(X)	144,335
	Bulk storage tanks:					
	Water, including elevated tanks:					
34439 21	Steel.....		(NA)	42,634	(NA)	42,610
34439 23	Aluminum.....		(NA)	216		
	Petroleum and petroleum products:					
34439 25	Steel.....	Short tons.....	167,630	50,187	242,566	61,093
34439 27	Aluminum.....	do.....	722	905		
34439 33	Other.....		(NA)	8,875	(NA)	22,495
	Pressure vessels and tanks, including process vessels, tanks, and kettles for refineries, chemical plants, paper mills, and other processing industries:					
	Carbon steel, including gas holders:					
34439 53	3/4" wall thickness and under.....	Short tons.....	24,080	11,706	2032,460	14,700
34439 55	Over 3/4" wall thickness.....	do.....	14,795	4,568		
34439 59	Alloy and stainless steel, nickel, aluminum, etc.....	do.....	641	1,736	1,992	3,437
34439 00	Metal tanks and vessels, custom fabricated and field erected, n.s.k.....		(X)	2,451	(X)	-
34430 00	Boiler shop products, n.s.k.....		(X)	88,555	(X)	70,077
3444- --	SHEET METAL WORK, TOTAL.....		(X)	1,324,673	(X)	1,008,471
34441 --	Sheet metal roofing and siding and roof drainage equipment.....		(X)	306,172	(X)	185,775
	Metal roofing:					
34441 11	Steel, all types.....	Short tons.....	579,150	133,679	292,138	69,081
34441 13	Aluminum, all types.....	do.....	18,110	16,542	(NA)	18,587
34441 15	Other metals, all types.....		(X)	212,809	(X)	1,462
	Metal siding:					
34441 16	Steel.....	Short tons.....	20,337	6,521	25,946	7,798
	Aluminum:					
34441 21	Residential.....	do.....	97,755	93,681	(NA)	51,110
34441 22	Other (commercial, industrial, farm buildings, etc.).....		(X)	5,169		
34441 19	Other metals.....		(X)	( <sup>21</sup> )	(X)	1,394
	Roof drainage equipment:					
34441 23	Steel:					
	Quantity reported.....	Short tons.....	63,464	19,940	68,101	21,847
	Quantity not reported.....		(X)	5,296	(X)	4,855
34441 27	Copper:					
	Quantity reported.....	Short tons.....	1,574	2,185	2,187	3,295
	Quantity not reported.....		(X)	219	(X)	680
34441 29	Aluminum.....		(X)	6,081	(X)	5,666
34441 00	Sheet-metal roofing and siding and roof drainage equipment, n.s.k.....		(X)	14,050	( <sup>22</sup> )	( <sup>22</sup> )
34442 --	Culverts, flumes, irrigation pipes, etc.....		(X)	137,527	(X)	126,878
34442 13	Steel.....		(X)	122,429	(X)	126,878
34442 15	Aluminum.....		(X)	4,659		
34442 19	Other metal.....		(X)	6,680	(X)	126,878
34442 00	Culverts, flumes, irrigation pipes, etc., n.s.k.....		(X)	3,759		

See footnotes at end of table.

TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3444- --	SHEET METAL WORK—Continued					
34443 --	Other sheet-metal work.....		(X)	731,750	(X)	485,913
34443 11	Cornices, skylights, ceilings, domes, copings and gravel stops..		(X)	14,844	(X)	4,028
34443 15	Roof ventilators.....		(X)	13,831	(X)	20,420
	Bins and vats:					
34443 62	Grain.....		(X)	27,015	(X)	24,786
34443 64	Other.....		(X)	13,398	(X)	5,930
	Other sheet metal products:					
	Stove pipe and furnace smoke pipe, elbows, ducts and fitting:					
34443 32	Aluminum.....		(X)	26,646	(X)	65,726
34443 42	Steel.....		(X)	66,263		
	Air conditioning ducts, including dust collecting and ventilating ducts:					
34443 34	Aluminum.....		(X)	25,355	(X)	80,534
34443 44	Steel.....		(X)	68,936		
	Restaurant, hotel, and kitchen sheet-metal equipment such as table tops, drainboard tops etc.:					
34443 36	Aluminum.....		(X)	20,904	(X)	43,754
34443 46	Steel.....		(X)	26,121		
	Metal awning and canopies, carports and patio roofs, including assembled or unassembled prefabricated types:					
34443 37	Aluminum.....		(X)	36,488	(X)	38,233
34443 47	Steel.....		(X)	5,989		
	Other sheet-metal work (except cornices, skylights, ceilings, domes, copings, gravel stops, roof ventilators, bins and vats):					
34443 39	Aluminum.....		(X)	52,220	(X)	202,502
34443 49	Steel.....		(X)	176,747		
34443 98	Other sheet metal work of metals other than steel or aluminum.		(X)	81,220	(22)	(22)
34443 00	Other sheet-metal work, n.s.k.....		(X)	75,773		
34440 00	Sheet-metal work, n.s.k.....		(X)	149,224	(X)	2209,905
3446- --	ARCHITECTURAL AND ORNAMENTAL WORK, (EXCEPT CURTAIN WALL AND OTHER EXTERIOR PANELS), TOTAL.....		(X)	306,229	(X)	332,941
	Iron and steel:					
34460 11	Grills, all types, including open mesh partitions and guards....		(X)	27,118	(X)	8,754
34460 13	Fences, and gates, other than wire:					
	Quantity reported.....	Short tons....	6,857	3,840	18,545	9,654
	Quantity not reported.....		(X)	2,522	-	-
34460 15	Stairs, staircases, fire escapes, and railings:					
	Quantity reported.....	Short tons....	102,867	52,916	97,235	51,437
	Quantity not reported.....		(X)	17,775	(X)	12,066
34460 17	Open flooring and grating for building construction:					
	Quantity reported.....	Short tons....	41,465	16,555	74,257	29,740
	Quantity not reported.....		(X)	7,800	(X)	6,964
34460 19	Other.....		(X)	54,283	(X)	97,090
	Aluminum:					
34460 33	Grills, all types, including open mesh partitions and guards:					
	Quantity reported.....	Short tons....	3,955	8,487	(NA)	53,345
	Quantity not reported.....		(X)	2,442		
34460 34	Fences and gates, other than wire:					
	Quantity reported.....	Short tons....	678	1,430	(NA)	53,345
	Quantity not reported.....		(X)	1,156		
34460 35	Stairs, staircases, fire escapes, and railings:					
	Quantity reported.....	Short tons....	2,573	8,824	(NA)	53,345
	Quantity not reported.....		(X)	4,162		
34460 36	Open flooring and grating for building construction:					
	Quantity reported.....	Short tons....	1,397	2,373	(NA)	53,345
	Quantity not reported.....		(X)	1,960		
34460 38	Other.....		(X)	38,839		
34460 41	Architectural and ornamental metal work other than aluminum or steel.....		(X)	5,455	(X)	9,528
34460 00	Ornamental and structural metal works, n.s.k.....		(X)	48,292	(X)	54,363

See footnotes at end of table.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3449- --	MISCELLANEOUS METAL WORK, TOTAL.....	.....	(X)	793,330	(X)	602,625
34492 --	Prefabricated and portable metal buildings and parts.....	.....	(X)	224,549	(X)	195,123
	Grain storage buildings:					
34492 11	Steel.....	Number.....	12,293	23,061	20,103	44,129
34492 21	Aluminum.....	do.....				
	Other farm service buildings (livestock shelters, etc.):					
34492 12	Steel.....	do.....	4,751	12,931	18,195	31,275
34492 22	Aluminum.....	do.....				
	Dwellings:					
34492 13	Steel.....	.....	(NA)	2,045	(NA)	83,571
34492 23	Aluminum.....	.....	(NA)	3,259		
	Industrial and commercial buildings:					
34492 14	Steel.....	Number.....	18,178	115,757	(NA)	83,571
34492 24	Aluminum.....	do.....	369	2,585		
	Other (including garages, etc.):					
34492 17	Steel.....	.....	(NA)	18,534	(NA)	26,061
34492 27	Aluminum.....	.....	(NA)	16,228		
	Panels, parts or sections for prefabricated buildings, not sold as a complete unit:					
34492 53	Steel.....	Short tons.....	(NA)	16,877	56,439	26,061
34492 55	Aluminum.....	do.....	(NA)	9,245		
34492 00	Prefabricated and portable metal buildings and parts, n.s.k....	.....	(X)	4,027	(X)	10,087
34493 --	Miscellaneous metal building materials.....	.....	(X)	506,500	(X)	407,502
	Metal plaster bases:					
34493 11	Expanded metal lath.....	1,000 sq. yds..	66,795	23,284	80,591	25,257
34493 32	Metal plaster base accessories.....	.....	(X)	31,866	(X)	27,210
34493 42	Fabricated bar joists.....	Short tons.....	380,952	89,348	296,874	69,475
34493 52	Fabricated concrete reinforcing bars.....	do.....	2,080,322	276,774	1,232,329	217,432
	Curtain wall:					
34493 73	Steel, including stainless.....	1,000 sq. ft...	14,001	10,095	23,687	24,300
34493 75	Aluminum.....	do.....	11,689	41,382		
34493 79	All other, including combination of metals.....	do.....	(NA)	13,384	(X)	43,828
34493 00	Miscellaneous metal building materials, n.s.k.....	.....	(X)	20,367		
34490 00	Miscellaneous metal work, n.s.k.....	.....	(X)	62,281	(X)	( <sup>23</sup> )

Note: Data for 1958 exclude Alaska and Hawaii.

-- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. n.s.k. Not specified by kind.

(X) Not applicable.

<sup>1</sup>For some products value data only were reported by some establishments. In those instances where such values amounted to less than 10 percent of the total value of the product, an estimated quantity figure has been included in the total quantity for the product.

<sup>2</sup>In 1958 "Fabricated structural metal for bridges, not specified by kind" and "Other fabricated structural metal, not specified by kind" were combined with "Fabricated structural metal for buildings, not specified by kind."

<sup>3</sup>Does not include structural metal fabricated for own use by establishments building ships.

<sup>4</sup>In 1958, metal doors constructed of metals other than iron and steel or aluminum were included with those of aluminum construction when such were collected separately and with those of iron and steel and aluminum construction when such doors were treated as a single product.

<sup>5</sup>This quantity was valued at \$17,915 thousand. The remaining \$5,807 thousand was reported without quantity.

<sup>6</sup>This quantity was valued at \$17,609 thousand. The remaining \$6,914 thousand was reported without quantity.

<sup>7</sup>This quantity was valued at \$148,374 thousand. The remaining \$22,925 thousand was reported without quantity.

<sup>8</sup>This quantity was valued at \$111,156 thousand. The remaining \$12,196 thousand was reported without quantity.

<sup>9</sup>This quantity was valued at \$4,838 thousand. The remaining \$767 thousand was reported without quantity.

<sup>10</sup>This quantity was valued at \$33,833 thousand. The remaining \$7,476 thousand was reported without quantity.

<sup>11</sup>Data represent thousands of linear feet.

<sup>12</sup>The product class structure for this industry has been revised effective with 1963. Accordingly, totals for selected product classes differ from previously published figures.

<sup>13</sup>1958 data for products 3443200 and 3443400 are not, separately, comparable with data for 1963. The total for these two products is comparable.

<sup>14</sup>Data differ from related data published in Current Industrial Reports Series M34G, "Steel Power Boilers" because of the following factors:

(a) In survey M34G the data represent new orders whereas Census of Manufactures data represent shipments.

(b) In survey M34G the data relate to boilers of 100 square feet of heating surface and over whereas the Census of Manufactures includes those of under 100 square feet of heating surface.

<sup>15</sup>In 1958, marine boilers were not reported separately from stationary power boilers.

<sup>16</sup>In 1958, product code 3443700 is combined with product code 3443500.

<sup>17</sup>This quantity was valued at \$30,529 thousand. The remaining \$5,358 thousand represents value for which no quantity was reported.

<sup>18</sup>This quantity was valued at \$79,206 thousand. The remaining \$12,615 thousand represents value for which no quantity was reported.

<sup>19</sup>This quantity was valued at \$23,843 thousand. The remaining \$3,675 thousand represents value for which no quantity was reported.

<sup>20</sup>This quantity was valued at \$12,790 thousand. The remaining \$1,910 thousand represents value for which no quantity was reported.

<sup>21</sup>Metal siding of other than steel and aluminum, product code 3444119 is included with metal roofing of other than steel and aluminum, 3444115.

<sup>22</sup>In 1958, all sheet-metal work, not specified by kind, is included in product code 3444000.

<sup>23</sup>Because of the lack of sufficient product detail on the reports for small establishments in the 1958 Census of Manufactures it was not possible to effect a precise distinction between fabricated structural iron and steel, not specified by kind (3441000) and miscellaneous metal work, not specified by kind. Accordingly, the value of such shipments, \$130,111 thousand, are included in the data for SIC 3441.

TABLE 6B. **Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
344	Structural metal products.....1963..	(1)	(1)
	.....1958..	(1)	(1)
3441	Fabricated structural steel.....1963..	119	120
	.....1958..	114	126
34411	Fabricated structural metal for buildings.....1963..	117	126
	.....1958..	110	124
34412	Fabricated structural metal for bridges.....1963..	98	109
	.....1958..	109	129
34413	Other fabricated structural metal.....1963..	126	109
	.....1958..	106	127
3442	Metal doors, sash, and trim <sup>1</sup> .....1963..	158	94
	.....1958..	146	99
34421	Metal doors and frames (except storm doors).....1963..	180	106
	.....1958..	125	102
34422	Metal window sash and frames.....1963..	126	93
	.....1958..	133	104
34424	Metal combination screen and storm sash and doors.....1963..	145	81
	.....1958..	150	91
34425	Metal window and door screens (except combination) and metal weatherstrip.....1963..	113	93
	.....1958..	145	93
3443	Boiler shop products.....1963..	(1)	(1)
	.....1958..	(1)	(1)
3444	Sheet metal work.....1963..	(1)	(1)
	.....1958..	(1)	(1)
34441	Sheet metal roofing and siding and roof drainage and equipment.....1963..	155	139
	.....1958..	111	126
3449	Miscellaneous metal work.....1963..	(1)	(1)
	.....1958..	(1)	(1)
34493	Miscellaneous metal building materials.....1963..	234	102
	.....1958..	143	119

<sup>1</sup>Not shown because comparable quantity data were not obtained for a significant portion of these products.



**TABLE 6C. Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963**

Code	Product class	1963	1962	1961	1960	1959	1958	1954	1947
3441-	Fabricated structural steel.....\$1,000..	1,603,982	1,514,210	1,487,562	1,498,365	1,385,844	1,602,126	1,103,873	527,127
34411	Fabricated structural metal for buildings:								
	Quantity.....short tons..	3,126,874	3,011,397	2,928,245	2,927,580	2,727,232	3,135,012	(NA)	(NA)
	Value.....\$1,000..	984,049	924,499	911,584	903,678	839,892	930,399	682,858	(NA)
34412	Fabricated structural metal for bridges:								
	Quantity.....short tons..	728,398	713,920	694,000	692,714	680,627	843,511	775,727	(NA)
	Value.....\$1,000..	224,879	214,176	223,083	218,508	222,019	279,624	199,315	(NA)
34413	Other fabricated structural metal:								
	Quantity.....short tons..	856,791	801,211	703,000	762,984	569,352	666,128	(NA)	(NA)
	Value.....\$1,000..	287,248	284,430	266,972	287,411	220,619	261,992	182,558	(NA)
34410	Fabricated structural metal, n.s.k.\$1,000..	107,806	(S)	(S)	(S)	(S)	130,111	(NA)	(NA)
3442-	Metal doors, sash, and trim.....\$1,000..	1,106,662	1,030,617	972,277	975,982	1,006,945	951,661	657,022	(NA)
34421	Metal doors and frames (except								
	storm doors).....\$1,000..	289,581	271,595	245,778	218,487	222,038	192,389	149,836	52,074
34422	Metal window sash and frames								
	(except storm sash).....\$1,000..	308,781	265,566	262,261	274,813	293,170	285,311	206,224	90,780
34423	Metal molding and trim and store								
	fronts.....\$1,000..	116,800	137,324	117,433	123,043	110,405	97,283	68,131	46,278
34424	Metal combination screen and,								
	storm sash and doors.....\$1,000..	221,353	231,366	218,773	232,536	247,804	231,510	169,794	27,393
34425	Metal window and door screens								
	(except combination) and metal								
	window strip.....\$1,000..	56,676	68,914	62,037	67,902	77,566	64,611	47,929	(NA)
34420	Metal doors, sash, and trim,								
	n.s.k.....\$1,000..	113,471	(S)	(S)	(S)	(S)	80,557	15,108	6,916
3443-	Boiler shop products.....\$1,000..	1,580,802	1,420,760	1,390,859	1,411,181	1,458,970	1,613,999	1,234,427	(NA)
34431	Heat exchangers and steam								
	condensers.....\$1,000..	160,548	126,741	155,073	145,961	150,665	187,243	162,757	63,296
34432	Fabricated steel plate.....do....	374,197	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
34433	Steel power boilers, parts, and								
	attachments (over 15 p.s.i. steam								
	working pressure).....do....	340,739	341,932	304,717	296,915	336,579	409,549	264,831	131,163
34434	Gas cylinders <sup>1</sup> .....do....	46,348	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
34435	Metal tanks, complete at factory								
	(standard line, pressure).....do....	104,442	305,189	290,835	282,635	301,215	269,006	228,692	(NA)
34437	Metal tanks complete at factory								
	(standard line nonpressured) <sup>2</sup> .....do....	145,586							
34438	Metal tanks and vessels custom								
	fabricated at the factory <sup>3</sup> .....do....	197,109	240,007	232,185	264,935	245,668	293,828	258,866	(NA)
34439	Metal tanks and vessels custom								
	fabricated and field erected <sup>3</sup> .....do....	123,278							
34430	Fabricated plate work (boiler								
	shops), n.s.k.....do....	88,555	(S)	(S)	(S)	(S)	70,077	14,322	27,534
3444-	Sheet metal work.....do....	1,324,673	1,183,151	1,132,457	1,134,577	1,096,058	1,008,471	727,620	410,640
34441	Sheet metal roofing, siding, and								
	drainage equipment.....do....	306,172	242,864	231,719	231,302	215,425	185,775	132,957	90,242
34442	Culverts, flumes, irrigation pipes.....do....	137,527	132,162	126,970	134,527	135,741	126,878	94,061	48,113
34443	Other sheet metal work.....do....	731,750	580,238	560,125	547,584	537,868	485,913	408,825	223,954
34440	Sheet metal work, n.s.k.....do....	149,224	(S)	(S)	(S)	(S)	209,905	91,777	48,331
34460	Architectural and ornamental								
	metal work <sup>4</sup> .....do....	306,229	356,675	354,927	339,801	346,121	332,941	265,349	76,163
3449-	Miscellaneous metal work, n.e.c. <sup>5</sup> .....do....	793,330	702,557	710,215	645,321	622,370	602,625	356,469	(NA)
34492	Prefabricated and portable metal								
	buildings and parts.....do....	224,549	192,533	195,082	181,456	195,863	195,123	116,023	68,409
34493	Miscellaneous metal building								
	materials.....do....	506,500	510,024	515,133	463,865	426,507	407,502	240,446	94,614
34490	Miscellaneous metal work, n.s.k.....do....	62,281	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

(NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>The product class structure has been revised effective with 1963, accordingly, totals for selected product classes differ from previously published figures.

<sup>2</sup>This product class was previously included with product class 34435.

<sup>3</sup>Product classes 34438 and 34439 were previously a single product class 34436, Metal tanks and vessels, custom fabricated at the factory.

<sup>4</sup>This product class was previously identified as product class 34491.

<sup>5</sup>This 4 digit product class group previously included product class 34460, Architectural and ornamental metal work.

TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
FABRICATED STRUCTURAL METAL FOR BUILDINGS (34411)			FABRICATED STRUCTURAL METAL FOR BRIDGES (34412)—Continued			METAL DOORS AND FRAMES, EXCEPT STORM DOORS (34421)		
United States, total.....	984,049	930,399	United States, total.....	287,248	261,992	United States, total.....	308,781	285,311
New England.....	36,195	26,757	West North Central.....	20,055	21,933	New England.....	14,170	6,394
Maine.....	4,403	( <sup>2</sup> )	Minnesota.....	2,492	2,102	Massachusetts.....	5,798	3,176
Massachusetts.....	16,806	11,687	Iowa.....	5,906	6,033	Middle Atlantic.....	73,185	62,861
Rhode Island.....	1,659	1,861	Missouri.....	3,630	5,655	New York.....	45,423	43,172
Connecticut.....	12,087	9,716	Nebraska.....	2,720	(Z)	New Jersey.....	10,793	1,652
Middle Atlantic.....	236,129	275,200	South Atlantic.....	20,417	14,517	Pennsylvania.....	16,969	18,037
New York.....	86,616	76,505	Virginia.....	12,282	7,869	East North Central.....	91,717	53,492
New Jersey.....	37,300	33,828	North Carolina.....	4,929	( <sup>2</sup> )	Ohio.....	29,129	15,842
Pennsylvania.....	112,213	164,867	East South Central.....	18,007	9,813	Indiana.....	10,355	6,410
East North Central.....	210,368	210,785	Alabama.....	13,580	7,493	Illinois.....	17,075	9,773
Ohio.....	41,683	48,960	West South Central.....	15,110	16,834	Michigan.....	34,181	21,023
Indiana.....	32,518	38,437	Oklahoma.....	4,287	4,784	West North Central.....	6,260	6,238
Illinois.....	60,605	66,639	Texas.....	7,958	9,512	Minnesota.....	1,930	1,996
Michigan.....	51,931	41,823	Mountain.....	4,853	3,867	Missouri.....	2,622	3,323
Wisconsin.....	23,631	14,926	Utah.....	2,680	(Z)	South Atlantic.....	36,733	17,746
West North Central.....	80,315	73,000	Pacific.....	14,421	19,452	Virginia.....	5,072	4,113
Minnesota.....	13,855	12,015	California.....	10,454	15,280	Georgia.....	9,848	( <sup>2</sup> )
Iowa.....	18,784	15,959	OTHER FABRICATED STRUCTURAL METAL (34413)			Florida.....	19,959	7,284
Missouri.....	27,120	28,205	United States, total.....	287,248	261,992	East South Central.....	6,473	8,861
Nebraska.....	6,600	4,570	New England.....	3,166	4,536	Tennessee.....	2,025	(Z)
Kansas.....	10,727	10,555	Massachusetts.....	1,200	2,378	West South Central.....	13,232	6,577
South Atlantic.....	110,602	81,758	Connecticut.....	1,685	(Z)	Texas.....	4,824	1,925
Maryland.....	16,614	12,110	Middle Atlantic.....	68,357	79,763	Mountain.....	2,436	1,653
Virginia.....	27,976	22,370	New York.....	7,003	15,131	Pacific.....	45,375	28,567
West Virginia.....	9,406	4,072	New Jersey.....	1,566	9,630	Oregon.....	3,121	(Z)
North Carolina.....	14,495	13,508	Pennsylvania.....	59,788	55,002	California.....	41,420	25,915
South Carolina.....	14,784	12,805	East North Central.....	62,383	46,201	METAL WINDOW SASH AND FRAMES, EXCEPT STORM SASH (34422)		
Georgia.....	8,559	5,977	Ohio.....	20,375	16,910	United States, total.....	308,781	285,311
Florida.....	18,364	10,064	Indiana.....	12,274	7,585	New England.....	8,388	8,918
East South Central.....	64,955	52,756	Illinois.....	17,898	11,387	Massachusetts.....	6,036	( <sup>2</sup> )
Kentucky.....	2,008	2,762	Michigan.....	8,637	2,700	Connecticut.....	1,767	1,921
Tennessee.....	26,195	14,686	Wisconsin.....	3,199	7,619	Middle Atlantic.....	44,922	34,948
Alabama.....	26,180	31,528	West North Central.....	8,865	8,934	New York.....	15,690	13,568
Mississippi.....	10,572	3,780	Minnesota.....	1,140	1,905	New Jersey.....	6,973	4,208
West South Central.....	108,018	79,763	Missouri.....	2,470	3,218	Pennsylvania.....	22,259	17,172
Arkansas.....	9,892	4,644	Kansas.....	4,069	3,396	East North Central.....	74,283	87,569
Louisiana.....	12,826	10,577	South Atlantic.....	16,410	13,618	Ohio.....	22,755	26,261
Oklahoma.....	15,628	12,298	Maryland.....	2,509	(Z)	Indiana.....	11,491	9,373
Texas.....	69,672	52,244	Virginia.....	3,749	6,296	Illinois.....	18,072	15,158
Mountain.....	27,430	26,452	South Carolina.....	1,767	(Z)	Michigan.....	14,521	32,871
Idaho.....	2,512	(Z)	Florida.....	4,380	2,833	Wisconsin.....	7,444	3,906
Colorado.....	8,774	8,983	East South Central.....	29,799	8,605	West North Central.....	20,665	21,130
Arizona.....	6,143	7,333	Tennessee.....	2,978	1,033	Minnesota.....	3,474	1,373
Utah.....	6,800	6,611	Alabama.....	8,692	6,646	Iowa.....	1,257	(Z)
Pacific.....	110,037	103,628	Mississippi.....	17,727	(Z)	Missouri.....	15,443	18,621
Washington.....	12,270	13,609	West South Central.....	40,488	43,620	South Atlantic.....	53,355	63,423
Oregon.....	5,146	4,541	Louisiana.....	1,344	(Z)	Maryland.....	1,811	(Z)
California.....	91,444	85,478	Oklahoma.....	11,804	16,657	Georgia.....	1,742	(Z)
FABRICATED STRUCTURAL METAL FOR BRIDGES (34412)			Texas.....	27,340	21,179	Florida.....	45,725	58,716
United States, total.....	224,879	279,624	Mountain.....	7,150	5,949	East South Central.....	14,378	10,488
New England.....	10,894	12,660	Pacific.....	50,630	50,766	Tennessee.....	3,338	(Z)
Middle Atlantic.....	61,572	109,211	Oregon.....	12,876	( <sup>2</sup> )	Mississippi.....	4,926	2,854
New York.....	11,073	13,142	California.....	33,989	38,569	West South Central.....	25,747	21,379
New Jersey.....	7,829	21,422				Louisiana.....	3,041	( <sup>2</sup> )
Pennsylvania.....	42,670	74,647				Texas.....	21,725	16,886
East North Central.....	59,550	71,337				Mountain.....	3,199	3,842
Ohio.....	9,707	12,912				Colorado.....	2,160	( <sup>2</sup> )
Indiana.....	23,608	33,176				Pacific.....	63,844	33,614
Illinois.....	11,276	18,293				Washington.....	9,557	6,243
Michigan.....	5,916	3,855				Oregon.....	1,258	(Z)
Wisconsin.....	9,043	3,101				California.....	53,029	26,821

See footnotes at end of table.



TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
METAL MOLDING AND TRIM AND STORE FRONTS (34423)			METAL WINDOW AND DOOR SCREENS EXCEPT COMBINATION AND METAL WEATHERSTRIP (34425)			FABRICATED STEEL PLATE (34432)—Continued		
United States, total.....	116,800	97,283	United States, total.....	56,676	64,611	West North Central.....	29,882	
New England.....	7,216	5,384	New England.....	1,846	1,688	Iowa.....	3,466	
New Hampshire.....	3,705	( <sup>2</sup> )	Middle Atlantic.....	7,436	10,721	Missouri.....	15,809	
Massachusetts.....	2,394	( <sup>2</sup> )	New York.....	4,612	4,069	Nebraska.....	4,577	
Middle Atlantic.....	13,562	13,506	East North Central.....	15,335	20,593	South Atlantic.....	22,349	
Pennsylvania.....	6,173	( <sup>2</sup> )	Ohio.....	2,954	6,486	Maryland.....	5,559	
East North Central.....	39,147	42,875	Indiana.....	1,743	1,316	Virginia.....	7,679	
Indiana.....	4,584	5,361	Illinois.....	9,266	11,834	North Carolina.....	1,721	
Illinois.....	13,238	17,759	Michigan.....	1,286	( <sup>2</sup> )	South Carolina.....	1,826	
Michigan.....	20,420	13,636	West North Central.....	4,403	4,147	Florida.....	3,463	
South Atlantic.....	37,270	19,739	Missouri.....	3,273	( <sup>2</sup> )	East South Central.....	13,170	
East South Central.....	4,881	2,749	South Atlantic.....	7,361	11,114	Tennessee.....	1,676	
West South Central.....	4,433	2,322	Florida.....	5,458	8,799	Alabama.....	9,121	
Pacific.....	9,693	10,281	East South Central.....	3,383	4,297	West South Central.....	23,236	
All other divisions.....	( <sup>2</sup> )	( <sup>2</sup> )	West South Central.....	8,082	6,022	Louisiana.....	1,514	
METAL COMBINATION SCREEN AND STORM SASH AND DOORS (34424)			West.....	8,830		Texas.....	19,842	
United States, total.....	221,353	231,510	California.....	8,460	5,789	Mountain.....	14,876	
New England.....	16,132	12,658	HEAT EXCHANGERS AND STEAM CONDENSERS (34431)			Colorado.....	3,429	
Massachusetts.....	9,374	6,911	United States, total.....	160,548	187,243	Utah.....	8,951	
Connecticut.....	4,637	2,793	New England.....	9,136	( <sup>2</sup> )	Pacific.....	58,904	
Middle Atlantic.....	66,374	86,132	Massachusetts.....	5,370	( <sup>2</sup> )	Oregon.....	7,405	
New York.....	26,098	35,777	Middle Atlantic.....	61,713	104,114	California.....	49,363	
New Jersey.....	21,951	18,802	New York.....	24,027	30,714	STEEL POWER BOILERS, PARTS AND ATTACHMENTS (OVER 15 P.S.I. STEAM WORKING PRESSURE (34433)		
Pennsylvania.....	18,325	31,553	New Jersey.....	8,803	28,167	United States, total.....	340,739	409,549
East North Central.....	75,799	78,955	Pennsylvania.....	28,883	45,233	Middle Atlantic.....	94,165	121,382
Ohio.....	29,538	29,352	East North Central.....	29,917	40,046	Pennsylvania.....	58,605	61,392
Indiana.....	4,161	3,705	Illinois.....	4,390	2,252	East North Central.....	102,924	146,493
Illinois.....	21,384	22,487	Wisconsin.....	18,596	17,631	Ohio.....	64,925	( <sup>2</sup> )
Michigan.....	18,389	22,056	East South Central.....	3,843	( <sup>2</sup> )	West North Central.....	6,236	9,341
Wisconsin.....	2,327	1,355	West South Central.....	30,827	16,713	Pacific.....	4,145	2,518
West North Central.....	24,598	21,741	Louisiana.....	1,153	( <sup>2</sup> )	California.....	4,145	2,049
Minnesota.....	2,851	4,618	Oklahoma.....	18,678	( <sup>2</sup> )	All other divisions.....	133,269	129,815
Iowa.....	3,987	8,212	Texas.....	10,996	9,845	GAS CYLINDERS (34434)		
Missouri.....	9,587	4,387	Pacific.....	8,095	16,632	United States, total.....		46,348
Nebraska.....	1,386	( <sup>2</sup> )	California.....	7,716	( <sup>2</sup> )	Middle Atlantic.....		13,780
Kansas.....	6,555	4,044	All other divisions.....	17,017	9,738	New Jersey.....		3,015
South Atlantic.....	13,979	8,900	FABRICATED STEEL PLATE (34432)			East North Central.....		22,259
Delaware.....	1,262	1,059	United States, total.....	374,197		West South Central.....		1,768
Maryland.....	3,218	3,382	New England.....	41,732		Texas.....		1,662
Virginia.....	1,813	1,275	Massachusetts.....	25,533		Pacific.....		6,767
North Carolina.....	5,319	( <sup>2</sup> )	Connecticut.....	15,632		California.....		6,767
East South Central.....	12,915	11,435	Middle Atlantic.....	103,108		All other divisions.....		( <sup>2</sup> )
Kentucky.....	5,696	7,283	New York.....	6,146		METAL TANKS, COMPLETE AT FACTORY (STANDARD LINE, PRESSURE) (34435)		
Tennessee.....	4,956	( <sup>2</sup> )	New Jersey.....	7,776		United States, total.....		104,442
West South Central.....	3,896	2,214	Pennsylvania.....	89,186		New England.....		1,584
Oklahoma.....	1,907	( <sup>2</sup> )	East North Central.....	66,940		Massachusetts.....		1,034
Texas.....	1,570	1,810	Ohio.....	22,865		Middle Atlantic.....		9,537
Mountain.....	2,438	2,266	Indiana.....	7,023		New York.....		2,345
Colorado.....	1,807	1,175	Illinois.....	16,353		New Jersey.....		3,955
Pacific.....	5,222	7,209	Michigan.....	12,702		Pennsylvania.....		3,237
Washington.....	1,339	( <sup>2</sup> )	Wisconsin.....	7,997				
California.....	3,383	6,071						

See footnotes at end of table.

TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued

Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>		1963 <sup>1</sup>		1963 <sup>1</sup>	1958
METAL TANKS, COMPLETE AT FACTORY (STANDARD LINE, PRESSURE) (34435)—Continued		METAL TANKS AND VESSELS, CUSTOM FABRICATED AT THE FACTORY (34438)		SHEET METAL ROOFING AND SIDING AND ROOF DRAINAGE EQUIPMENT (34441)—Continued		
United States, total.....		United States, total.....	197,109	Middle Atlantic.....	46,357	41,837
East North Central.....	24,196	New England.....	5,571	Pennsylvania.....	33,038	39,788
Ohio.....	3,272	Massachusetts.....	4,909	East North Central.....	171,720	99,943
Illinois.....	12,291	Middle Atlantic.....	29,624	Ohio.....	97,645	46,224
Wisconsin.....	5,059	New York.....	4,005	Indiana.....	10,330	2,621
West North Central.....	8,006	New Jersey.....	6,862	Illinois.....	18,815	17,029
Minnesota.....	4,269	Pennsylvania.....	18,757	Michigan.....	19,341	16,195
South Atlantic.....	15,608	East North Central.....	41,026	Wisconsin.....	25,589	17,874
Virginia.....	2,726	Ohio.....	15,198	West North Central.....	8,450	5,246
North Carolina.....	4,042	Illinois.....	8,785	Missouri.....	5,667	3,516
East South Central.....	7,584	Wisconsin.....	6,165	South Atlantic.....	26,041	6,566
Tennessee.....	4,376	West North Central.....	4,557	Maryland.....	4,330	(Z)
West South Central.....	26,880	Missouri.....	3,288	East South Central.....	16,120	10,427
Oklahoma.....	12,887	South Atlantic.....	11,914	Alabama.....	1,095	(Z)
Texas.....	8,927	Maryland.....	1,251	West South Central.....	9,025	6,651
Mountain.....	1,722	Georgia.....	2,629	Louisiana.....	1,215	(Z)
Pacific.....	9,325	East South Central.....	9,984	Oklahoma.....	1,537	(Z)
California.....	8,572	Tennessee.....	1,756	Texas.....	5,563	5,727
METAL TANKS, COMPLETE AT FACTORY (STANDARD LINE, NONPRESSURE) (34437)		Alabama.....	6,827	Mountain.....	1,874	(Z)
United States, total.....	145,586	West South Central.....	69,724	Pacific.....	24,098	13,416
New England.....	6,365	Oklahoma.....	17,996	Washington.....	2,138	2,721
Massachusetts.....	4,607	Texas.....	32,143	Oregon.....	1,183	2,028
Middle Atlantic.....	21,886	Mountain.....	3,796	California.....	20,606	8,667
New York.....	9,101	Colorado.....	1,743	CULVERTS, FLUMES, IRRIGATION PIPES, ETC. (34442)		
New Jersey.....	3,594	Utah.....	1,563	United States, total.....	137,527	126,878
Pennsylvania.....	9,191	Pacific.....	20,913	New England.....	5,099	6,560
East North Central.....	37,911	California.....	19,581	Middle Atlantic.....	16,770	5,434
Ohio.....	9,058	METAL TANKS AND VESSELS, CUSTOM FABRICATED AND FIELD ERRECTED (34439)		New York.....	4,861	(Z)
Indiana.....	3,922	United States, total.....	123,278	New Jersey.....	1,002	(Z)
Illinois.....	7,732	Middle Atlantic.....	20,834	Pennsylvania.....	10,907	3,056
Michigan.....	5,414	New Jersey.....	2,907	East North Central.....	31,890	42,156
Wisconsin.....	11,785	Pennsylvania.....	17,097	Ohio.....	15,623	29,039
West North Central.....	19,633	East North Central.....	17,818	Indiana.....	9,161	6,167
Minnesota.....	4,069	South Atlantic.....	11,119	Illinois.....	2,194	2,363
Missouri.....	12,495	Delaware.....	7,978	Michigan.....	2,261	1,594
Kansas.....	1,015	East South Central.....	24,886	Wisconsin.....	2,651	2,993
South Atlantic.....	15,026	West South Central.....	20,861	West North Central.....	18,415	18,736
Maryland.....	2,904	Louisiana.....	1,747	Minnesota.....	4,430	4,735
Virginia.....	1,578	Oklahoma.....	4,627	Iowa.....	3,056	4,142
North Carolina.....	3,226	Texas.....	14,452	Missouri.....	2,709	1,643
Georgia.....	3,330	Mountain.....	12,528	Nebraska.....	3,435	5,065
Florida.....	3,736	Pacific.....	7,946	Kansas.....	3,932	(Z)
East South Central.....	5,440	California.....	6,641	South Atlantic.....	18,095	13,073
Kentucky.....	2,719	All other divisions.....	7,286	Virginia.....	1,877	1,860
Alabama.....	2,273	SHEET METAL ROOFING AND SIDING AND ROOF DRAINAGE EQUIPMENT (34441)		North Carolina.....	3,702	1,861
West South Central.....	18,623	United States, total.....	306,172	Florida.....	5,223	(Z)
Oklahoma.....	7,729	New England.....	2,487	East South Central.....	6,943	7,619
Texas.....	7,681	Massachusetts.....	1,987	Tennessee.....	3,549	3,404
Mountain.....	4,341			West South Central.....	7,115	6,699
Colorado.....	1,884			Oklahoma.....	2,562	2,188
Pacific.....	16,361			Texas.....	2,787	3,406
Washington.....	1,810			Mountain.....	12,018	8,801
California.....	13,189			Arizona.....	1,407	(Z)
				Utah.....	2,945	(Z)
				Pacific.....	21,182	17,798
				Oregon.....	6,900	(Z)
				California.....	11,595	9,763

See footnotes at end of table.



TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
OTHER SHEET METAL WORK (34443)			ARCHITECTURAL AND ORNAMENTAL METAL WORK (EXCEPT CURTAIN WALL AND OTHER EXTERIOR PANELS) (34460)—Continued			PREFABRICATED AND PORTABLE METAL BUILDING AND PARTS (34492)—Continued		
United States, total.....	731,750	485,913				East South Central.....	16,203	15,552
New England.....	42,983	26,129	East North Central.....	74,373	90,115	Kentucky.....	5,014	( <sup>2</sup> )
Massachusetts.....	30,023	20,370	Ohio.....	27,559	28,627	West South Central.....	19,446	14,930
Rhode Island.....	1,829	( <sup>2</sup> )	Indiana.....	7,771	6,899	Louisiana.....	4,364	( <sup>2</sup> )
Connecticut.....	7,990	4,234	Illinois.....	20,461	27,316	Texas.....	10,478	10,699
Middle Atlantic.....	163,365	111,711	Michigan.....	11,691	20,815	West.....	33,326	20,438
New York.....	76,135	48,358	Wisconsin.....	6,891	6,458	California.....	29,457	16,763
New Jersey.....	34,053	23,054						
Pennsylvania.....	53,177	40,299	West North Central.....	16,679	18,134			
East North Central.....	229,216	144,853	Minnesota.....	5,696	7,547	MISCELLANEOUS METAL BUILDING MATERIALS AND CURTAIN WALL (34493)		
Ohio.....	81,039	55,447	Iowa.....	1,660	2,561			
Indiana.....	25,864	9,327	Missouri.....	6,449	6,208	United States, total.....	506,500	407,502
Illinois.....	43,940	30,614	Kansas.....	1,953	1,054	New England.....	10,392	8,156
Michigan.....	51,310	27,275				Massachusetts.....	5,899	3,363
Wisconsin.....	27,063	22,190	South Atlantic.....	38,401	34,116	Connecticut.....	1,752	( <sup>2</sup> )
West North Central.....	83,798	63,683	Maryland.....	8,405	8,450	Middle Atlantic.....	76,014	64,409
Minnesota.....	13,288	11,886	District of Columbia.....	1,427	1,914	New York.....	13,780	14,352
Iowa.....	14,366	8,889	Virginia.....	6,460	6,000	New Jersey.....	14,696	16,914
Missouri.....	32,935	32,106	North Carolina.....	4,113	2,780	Pennsylvania.....	47,538	33,143
Nebraska.....	16,743	6,065	South Carolina.....	1,826	( <sup>2</sup> )			
Kansas.....	3,727	1,602	Georgia.....	3,249	2,412			
South Atlantic.....	54,095	33,272	Florida.....	5,382	5,257			
Maryland.....	15,708	5,380	East South Central.....	15,833	19,156			
Virginia.....	5,873	3,074	Kentucky.....	6,505	5,719			
West Virginia.....	1,690	1,703	Tennessee.....	2,351	7,059			
North Carolina.....	5,435	4,384	Alabama.....	6,381	5,913	East North Central.....	123,179	108,087
Georgia.....	7,087	5,119				Ohio.....	42,941	39,685
Florida.....	15,161	12,709	West South Central.....	18,415	13,903	Indiana.....	8,738	1,615
East South Central.....	15,887	8,909	Arkansas.....	1,053	( <sup>2</sup> )	Illinois.....	51,088	46,928
Kentucky.....	4,358	2,418	Louisiana.....	1,465	1,127	Michigan.....	11,389	8,801
Tennessee.....	5,575	2,238	Oklahoma.....	3,853	3,578	Wisconsin.....	9,023	11,058
Alabama.....	5,104	3,463	Texas.....	12,044	8,857			
West South Central.....	27,741	18,705	Mountain.....	11,391	9,190	West North Central.....	48,512	26,922
Arkansas.....	1,123	( <sup>2</sup> )	Colorado.....	1,439	1,982	Minnesota.....	11,214	9,167
Louisiana.....	4,888	2,163	Utah.....	4,867	4,415	Iowa.....	3,782	3,273
Oklahoma.....	3,014	2,029	Pacific.....	34,154	31,301	Nebraska.....	1,937	1,883
Texas.....	18,716	14,260	Washington.....	2,172	3,570	Kansas.....	4,900	( <sup>2</sup> )
Mountain.....	10,722	6,070	California.....	31,156	25,737			
Colorado.....	4,295	2,655				South Atlantic.....	69,781	59,696
Arizona.....	4,177	( <sup>2</sup> )	PREFABRICATED AND PORTABLE METAL BUILDING AND PARTS (34492)			Maryland.....	11,588	15,582
Utah.....	1,357	1,118				Virginia.....	12,099	6,660
Pacific.....	103,943	72,543	United States, total.....	224,549	195,123	West Virginia.....	10,532	( <sup>2</sup> )
Washington.....	10,491	7,839				North Carolina.....	5,919	3,166
Oregon.....	5,501	4,947	New England.....	1,843	8,965	South Carolina.....	11,685	6,610
California.....	87,568	59,757	Middle Atlantic.....	27,130	12,167	Florida.....	15,981	13,145
ARCHITECTURAL AND ORNAMENTAL METAL WORK (EXCEPT CURTAIN WALL AND OTHER EXTERIOR PANELS) (34460)			New York.....	9,447	7,586			
			New Jersey.....	2,011	1,496	East South Central.....	34,606	24,828
United States, total.....	306,229	332,941	Pennsylvania.....	15,672	3,085	Tennessee.....	8,086	4,647
New England.....	15,272	19,091	East North Central.....	92,841	94,402	Alabama.....	21,935	18,682
Massachusetts.....	8,952	8,709	Ohio.....	21,900	30,269			
Connecticut.....	5,710	9,128	Illinois.....	46,263	38,131	West South Central.....	52,373	44,879
Middle Atlantic.....	81,711	97,935	Wisconsin.....	6,938	( <sup>2</sup> )	Oklahoma.....	11,863	9,286
New York.....	39,469	43,568	West North Central.....	19,554	22,591	Texas.....	34,886	28,606
New Jersey.....	11,772	13,848	Missouri.....	2,355	2,604			
Pennsylvania.....	30,470	40,519	Kansas.....	1,890	1,406	Mountain.....	14,756	15,044
			South Atlantic.....	14,206	6,078	Colorado.....	6,321	( <sup>2</sup> )
			Georgia.....	5,356	( <sup>2</sup> )	Utah.....	1,520	3,960
			Florida.....	4,590	3,239	Pacific.....	76,887	55,481
						California.....	60,571	43,084

(Z) Less than \$1 million.

<sup>1</sup>For the specified product classes, shipments of over \$1 million were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 34411, Vermont, North Dakota, South Dakota, New Mexico, and Nevada; 34412, Maine, Massachusetts, Connecticut, South Dakota, Kansas, Georgia, Tennessee, Arkansas, Louisiana, Arizona, and Washington; 34413, West Virginia, Idaho, Utah, and Washington; 34421, Rhode Island, Connecticut, Kentucky, Alabama, Arkansas, and Louisiana; 34422, Virginia, Kentucky, and Alabama; 34423, New Jersey, Georgia, Florida, Kentucky, Oklahoma, Texas, Washington, and California; 34424, Alabama; 34425, New Hampshire, Pennsylvania, Alabama, Oklahoma, and Texas; 34431, Rhode Island, Connecticut, Ohio, Michigan, Missouri, Maryland, Kentucky, and Tennessee; 34432, Minnesota, Kansas, Mississippi, and Washington; 34433, New York, New Jersey, Indiana, Illinois, Michigan, Minnesota, Iowa, Missouri, Virginia, North Carolina, Georgia, Tennessee, Mississippi, and Texas; 34434, Pennsylvania, Ohio, Indiana, Illinois, and Wisconsin; 34435, Indiana, Michigan, Nebraska, Georgia, Alabama, Mississippi, Louisiana, and Colorado; 34437, Arkansas, Louisiana, and Oregon; 34438, Indiana, Michigan, Delaware, Virginia, West Virginia, North Carolina, and Louisiana; 34439, Indiana, Illinois, Wisconsin, Iowa, Georgia, Kentucky, Tennessee, Alabama, Mississippi, Utah, and Oregon; 34441, New York, New Jersey, Iowa, Virginia, West Virginia, North Carolina, Tennessee, and Mississippi; 34442, Maine, Massachusetts, Maryland, Georgia, Kentucky, Alabama, Louisiana, Montana, Idaho, Colorado, and Washington; 34443, Maine, South Dakota, District of Columbia, and South Carolina; 34460, West Virginia, and Arizona; 34492, Massachusetts, Indiana, Michigan, Iowa, Nebraska, Alabama, Oklahoma, and Oregon; 34493, Maine, Rhode Island, Missouri, Georgia, Kentucky, Mississippi, Arkansas, Louisiana, New Mexico, Arizona, Washington, and Oregon.

<sup>2</sup>Shipments of \$1 million or more were reported, but exact figures are withheld to avoid disclosure of individual company figures.

TABLE 7A.    Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958		1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3441.—FABRICATED STRUCTURAL STEEL				INDUSTRY 3442.—METAL DOORS, SASH, AND TRIM			
	Materials, containers, parts, and supplies, total.....		(X)	947,245	(X)	856,619	-	628,166	-	517,157
	Mill shapes and forms (except castings):									
	Carbon steel:									
331009	Concrete reinforcing bars..	Short tons..	248,844	27,931	306,434	42,336	} 30,457	4,658	55,976	9,097
331010	Bars and bar shapes (except concrete reinforcing bars)	...do.....	362,049	53,253	287,185	43,292				
331012	Sheet and strip.....	...do.....	311,505	48,390	243,327	32,114	269,792	42,948	251,980	35,089
331013	Plates.....	...do.....	969,636	142,951	762,855	108,118	2,911	474	2,210	394
331015	Structural shapes.....	...do.....	2,432,411	354,570	2,409,271	333,050	21,741	3,507	60,707	9,279
331017	Wire and wire products.....	...do.....	37,106	6,103	42,185	7,456	2,172	715	3,570	2,318
331019	All other carbon steel mill shapes and forms.....	...do.....	157,399	30,701	85,130	13,780	29,712	5,297	6,823	1,312
	Alloy steel (except stainless):									
331021	Bar and bar shapes.....	...do.....	9,908	1,671	13,718	2,679	} 4,481	1,097	{ 1,020	310
331029	All other alloy steel mill shapes and forms.....	...do.....	30,750	7,402	11,747	2,284				
331031	Stainless steel.....	...do.....	3,152	3,965	1,483	1,734	7,586	7,763	6,088	5,625
335790	Copper and copper-base alloy: Insulated wire and cable...	1,000 lbs. (copper content)...	} 145	84	{ (D)	(D)	{ (D)	(D)	(D)	(D)
335728	Bare wire for electrical conduction.....	1,000 lbs...								
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	...do.....	138	113	} 1,275	848	{ 273	162	{ 1,165	726
335127	Pipe and tube.....	...do.....	2,268	432						
335123	Plate, sheet, and strip (including military cups and discs).....	...do.....	318	299	} 6,568	2,937	{ 1,428	638	{ 298,496	136,713
335202	Aluminum and aluminum-base alloy:									
335205	Sheet, plate and foil.....	...do.....	11,603	5,950	6,986	3,399	68,545	26,048	72,005	30,160
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.).....	...do.....	10,155	4,695	} 6,568	2,937	{ 334,549	128,054	{ 298,496	136,713
335209	All other aluminum mill shapes and forms (wire, rolled rod, and bar powder, welded tubing, etc.).....	...do.....	3,444	1,790						
335209	All other aluminum mill shapes and forms (wire, rolled rod, and bar powder, welded tubing, etc.).....	...do.....	3,444	1,790	} 6,568	2,937	{ 52,890	19,616	{ 298,496	136,713
331051	Primary metals (ingot, pig, etc.):									
331051	Pig iron.....	Short tons..	1,403	106	3,271	215	(D)	(D)	(D)	(D)
333401	Aluminum and aluminum-base alloy refinery shapes (ingot, slugs, billet).....	...do.....	(D)	(D)	(D)	(D)	87,118	38,770	40,081	21,207
333348	Zinc and zinc-base alloy refinery shapes.....	...do.....	(D)	(D)	2,890	685	543	251	212	216
999811	Scrap (excluding home scrap):									
999808	Iron and steel.....	...do.....	10,730	497	26,008	1,051	(D)	(D)	-	-
999808	Aluminum and aluminum-base alloy.....	...do.....	(NA)	21	(D)	(D)	6,984	2,665	7,918	3,436
332011	Castings (rough and semi-finished): <sup>1</sup>									
332011	Iron (gray and malleable)....	...do.....	3,696	1,049	5,858	1,677	1,205	645	1,547	601
332300	Steel.....	...do.....	20,829	8,498	15,587	5,622	2,063	531	2,555	801
336100	Aluminum and aluminum-base alloy.....	1,000 lbs...	2,477	2,071	1,936	1,795	7,306	3,441	20,280	11,961
336200	Copper and copper-base alloy.	...do.....	103	66	272	176	76	40	153	149
970099	All other materials and components, parts, containers, and supplies consumed <sup>2</sup> .....		(X)	144,697	(X)	145,063	(X)	165,331	(X)	120,429
973000	Materials, etc., n.s.k. <sup>3</sup> .....		(X)	99,940	(X)	106,308	(X)	175,515	(X)	125,886

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958		1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3443.—BOILER SHOP PRODUCTS				INDUSTRY 3444.—SHEET METAL WORK			
	Materials, containers, parts, and supplies, total.....		(X)	755,278	(X)	768,511	(X)	562,429	(X)	462,140
	Mill shapes and forms (except casting):									
	Carbon steel:									
331009	Concrete reinforcing bars..	Short tons..	5,972	782	3,918	1,005	1,567	257	25,195	5,563
331010	Bars and bar shapes (except concrete reinforcing bars)	...do.....	67,165	11,364	68,942	12,103	36,620	6,475		
331012	Sheet and strip.....	...do.....	377,261	56,595	292,212	45,181	1,077,905	184,970	1,003,179	160,586
331013	Plates.....	...do.....	1,500,821	215,802	1,251,393	176,922	83,968	11,896	55,129	7,735
331015	Structural shapes.....	...do.....	165,278	24,769	164,509	23,193	34,977	5,939	15,184	2,814
331017	Wire and wire products.....	...do.....	11,799	2,274	4,102	1,828	2,602	794	3,027	987
331019	All other carbon steel mill shapes and forms.....	...do.....	149,824	43,114	123,102	48,232	16,501	3,559	33,560	6,657
	Alloy steel (except stainless):									
331021	Bars and bar shapes.....	...do.....	4,701	1,739	7,779	1,836	1,010	262	2,142	551
331029	All other alloy steel mill shapes and forms.....	...do.....	105,681	38,102	34,125	12,998	28,458	6,078	9,692	2,288
331031	Stainless steel.....	...do.....	22,763	33,058	27,967	40,762	14,446	18,641	9,963	14,003
	Copper and copper-base alloy:									
335728	Bare wire (for electrical conduction only).....	1,000 lbs... }	174	106	{ 123 95	{ 88 57	36	42	{ 545 (D)	297 (D)
335790	Insulated wire and cable...	...do.....								
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	...do.....	486	257	22,920	17,025	{ 282 13,161 1,861	118	{ 6,808 820	9,350
335123	Plate, sheet, and strip (including military cups and discs).....	...do.....	4,919	3,875						
335127	Pipe and tube.....	...do.....	15,967	8,712						
	Aluminum and aluminum base-alloy:									
335202	Sheet, plate and foil.....	...do.....	18,668	10,433	5,025	3,092	118,986	58,498	84,230	39,075
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.).....	...do.....	1,973	1,125	1,458	798	{ 19,159 40,831	8,524	10,658	5,729
335209	All other aluminum mill shapes and forms (wire, rolled, rod and bar, powder, welded tubing, etc.).....	...do.....	2,600	1,132						
	Primary metals:									
331051	Pig iron.....	Short tons..	4,628	275	42,792	2,641	(D)	(D)	(NA)	(NA)
333401	Aluminum and aluminum-base alloy refinery shapes (ingot, slug, billet, etc.)	...do.....	-	-	(D)	(D)	1,208	585	(NA)	(NA)
333348	Zinc and zinc-base alloy refinery shapes.....	...do.....	539	123	505	109	2,921	701	2,447	625
	Scrap (excluding home scrap):									
999811	Iron and steel.....	...do.....	32,280	1,290	63,700	2,988	(D)	(D)	(NA)	(NA)
999808	Aluminum and aluminum-base alloy.....	...do.....	-	-	(D)	(D)	(D)	(D)	(NA)	(NA)
	Castings (rough and semi-finished): <sup>1</sup>									
332011	Iron (gray and malleable)....	...do.....	7,428	2,718	17,251	4,654	1,105	880	1,225	550
332300	Steel.....	...do.....	8,918	5,839	7,703	4,926	714	214	3,829	842
336100	Aluminum and aluminum-base alloy.....	1,000 lbs...	(NA)	301	(NA)	194	501	441	480	396
336200	Copper and copper-base alloy.	...do.....	670	712	1,574	1,270	270	239	207	170
970099	All other materials and components, parts, containers, and supplies consumed <sup>2</sup> .....		(X)	215,195	(X)	261,880	(X)	106,150	(X)	93,988
973000	Materials, etc., n.s.k. <sup>3</sup> ....		(X)	75,586	(X)	104,729	(X)	122,709	(X)	114,062

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958		1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3446.—ARCHITECTURAL METAL WORK				INDUSTRY 3449.—MISCELLANEOUS METAL WORK, N.E.C.			
	Materials, containers, parts, and supplies, total.....	.....	(X)	99,865	(4)	(4)	-	360,361	-	435,154
	Mill shapes and forms (except castings):									
	Carbon steel:									
331009	Concrete reinforcing bars..	Short tons..	1,777	240	(4)	(4)	972,915	102,418	816,284	104,773
331010	Bars and bar shapes (except concrete reinforcing bars)	...do.....	44,400	7,796	(4)	(4)	222,617	32,124	258,419	38,147
331012	Sheet and strip.....	...do.....	79,246	12,598	(4)	(4)	430,656	72,677	491,431	76,971
331013	Plates.....	...do.....	19,111	2,952	(4)	(4)	63,102	9,404	75,010	10,462
331015	Structural shapes.....	...do.....	36,598	6,129	(4)	(4)	79,589	12,793	168,516	25,695
331017	Wire and wire products.....	...do.....	3,715	823	(4)	(4)	60,776	9,300	64,290	11,253
331019	All other carbon steel mill shapes and forms.....	...do.....	15,592	3,136	(4)	(4)	24,944	4,239	31,499	6,367
	Alloy steel (except stainless):									
331021	Bars and bar shapes.....	...do.....	1,275	283	(4)	(4)	3,255	679	18,695	3,698
331029	All other alloy steel mill shapes and forms.....	...do.....	639	380	(4)	(4)	10,088	2,025	6,429	1,638
331031	Stainless steel.....	...do.....	687	774	(4)	(4)	886	1,265	1,459	1,902
335790	Copper and copper-base alloy: Insulated wire and cable...	1,000 lbs...	-	-	(4)	(4)	(D)	(D)	(D)	(D)
335728	Bare wire (for electrical conduction only).....	...do.....	-	-	(4)	(4)	(D)	(D)	(D)	(D)
335102	Rod, bar, and mechanical wire including extruded and/or drawn shapes.....	...do.....	675	1,734	(4)	(4)	{ (NA)	414	(NA)	1,343
335127	Pipe and tube.....	...do.....								
335123	Plate, sheet, and strip (including military cups and discs).....	...do.....								
	Aluminum and aluminum-base alloy:		418	264	(4)	(4)				
335202	Sheet, plate and foil.....	...do.....	5,234	2,581	(4)	(4)	27,308	10,973	17,585	9,181
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.).....	...do.....	17,461	7,697	(4)	(4)	18,223	8,024	27,612	14,972
335209	All other aluminum mill shapes and forms (wire, rolled rod, and bar, powder, welded tubing, etc.).....	...do.....	2,033	1,304	(4)	(4)	648	298		
331051	Primary metals: Pig iron.....	Short tons..	4,731	276	(4)	(4)	-	-	2,283	152
333401	Aluminum and aluminum-base alloy refinery shapes slugs, billet, etc.).....	...do.....	1,663	842	(4)	(4)	-	-	3,642	1,800
333348	Zinc and zinc-base alloy refinery shapes.....	...dc.....	(D)	(D)	(4)	(4)	(D)	(D)	1,381	689
999811	Scrap (excluding home scrap): Iron and steel.....	...do.....	(D)	(D)	(4)	(4)	(D)	(D)	19,903	1,047
999808	Aluminum and aluminum-base alloy.....	...do.....	(D)	(D)	(4)	(4)	-	-	(NA)	560
332011	Castings (rough and semi-finished): <sup>1</sup> Iron (gray and malleable)....	...do.....	2,094	673	(4)	(4)	1,835	626	6,767	2,300
332300	Steel.....	...do.....	(NA)	428	(4)	(4)	(D)	(D)	(NA)	2,061
336100	Aluminum and aluminum base alloy.....	1,000 lbs...	1,694	761	(4)	(4)	533	457	2,455	2,204
336200	Copper and copper-base alloy.	...do.....	263	215	(4)	(4)	(D)	(D)	581	313
970099	All other materials and components, parts, containers, and supplies consumed <sup>2</sup> .....	.....	(X)	26,701	(4)	(4)	(X)	49,405	(X)	63,720
973000	Materials, etc., n.s.k. <sup>3</sup> ....	.....	(X)	21,278	(4)	(4)	(X)	43,290	(X)	53,906

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. n.s.k. Not specified by kind.  
(X) Not applicable.

<sup>1</sup>Does not include castings produced and consumed in the same establishment.

<sup>2</sup>Includes values for those material items for which separate data could not be published without revealing the operations of individual companies.

The symbol, "D", appears for such items.

<sup>3</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" when separate figures for individual materials consumed were not requested, (b) total cost of materials reported for establishments which failed to report costs of individual materials on "standard forms," and (c) discrepancies between total cost of materials and detailed materials on reports for other establishments.

<sup>4</sup>In 1958, industry 3446 and 3449 were combined. Therefore the 1958 data in industry 3449 are comparable to the 1963 data for industry 3446 and industry 3449 combined.



**TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962**

Item	Fabricated structural steel (SIC 3441)	Metal doors, sash, and trim (SIC 3442)	Boiler shop products (SIC 3443)	Sheet metal work (SIC 3444)	Miscellaneous metal work, n.e.c. <sup>1</sup> (SIC 3449)
Total cost of purchased fuels and electric energy.....\$1,000..	13,706	9,629	17,790	11,361	8,021
Total cost of purchased fuels.....do....	5,404	4,044	8,003	5,247	3,242
Bituminous coal, lignite, and anthracite:					
Quantity.....1,000 short tons..	26	26	99	18	(S)
Cost.....\$1,000..	201	163	633	146	(S)
Coke and breeze:					
Quantity.....1,000 short tons..	7	-	5	-	3
Cost.....\$1,000..	172	-	159	-	99
Fuel oil (distillate and residual):					
Quantity.....1,000 barrels of 42 gallons..	297	262	438	187	168
Cost.....\$1,000..	1,195	1,037	1,762	805	699
Gas (natural, manufactured, still, blast furnace, and coke oven):					
Quantity.....million cu. ft..	3,527	3,003	7,364	4,104	3,271
Cost.....\$1,000..	2,109	1,698	4,017	2,345	1,609
Other fuels.....do....	1,727	1,146	1,432	1,951	773
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	527	371	676	299	288
Cost.....\$1,000..	8,302	5,585	9,787	6,114	4,779
Generated less sold.....million kw.-hrs..	(S)	-	(S)	(S)	(S)
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	576	231	739	286	283
Prime movers, total.....do....	69	38	66	35	34
Driving generators.....do....	12	2	19	11	5
Not driving generators.....do....	57	36	47	24	29
Electric motors, total.....do....	507	193	677	252	250
Driven by purchased energy.....do....	507	193	673	251	249
Driven by energy generated at establishment.....do....	(Z)	-	4	1	(Z)
Aggregate horsepower per 100 production workers.....	975	533	1,434	578	887

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Industry 3446 was part of industry 3449 in the year 1962.

**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3441-	FABRICATED STRUCTURAL METAL										
	Entire industry.....	1,718	85,423	527,220	63,674	127,899	350,337	814,805	1,140,975	1,916,048	28,162
	Establishments with—										
	90% or more specialization...	1,270	53,938	329,724	40,707	80,547	223,789	519,365	681,430	1,167,460	18,090
	75-89% specialization.....	164	9,765	62,770	6,969	14,598	39,079	92,948	138,932	228,657	3,374
34411	Fabricated structural metal for buildings (primary product class of estab.).....	959	56,141	356,787	40,663	83,573	228,846	558,445	768,079	1,313,310	17,176
	Establishments with—										
	90% or more specialization....	545	19,348	123,166	14,237	29,285	80,128	206,561	252,031	459,276	6,019
	75-89% specialization.....	138	8,179	52,602	5,968	12,129	34,452	71,549	112,817	187,391	2,016
34412	Fabricated structural metal for bridges (primary product class of estab.).....	53	7,693	44,543	5,875	11,471	30,626	72,447	107,908	172,164	1,421
	Establishments with—										
	90% or more specialization....	8	366	2,314	208	430	1,149	5,400	4,228	9,351	42
	75-89% specialization.....	11	1,967	11,520	1,544	2,965	8,186	21,717	29,984	49,078	253
34413	Other fabricated structural metal (primary product class of estab.).....	240	14,941	89,389	12,039	22,839	64,908	120,689	189,673	293,307	6,573
	Establishments with—										
	90% or more specialization....	134	3,163	17,592	2,420	4,743	12,291	27,895	33,041	60,897	1,169
	75-89% specialization.....	26	1,239	7,721	984	2,075	5,350	11,671	13,768	25,280	349
3442-	METAL DOORS, SASH, AND FRAME										
	Entire industry.....	1,817	62,799	324,796	46,645	95,727	206,127	570,370	681,385	1,253,814	21,305
	Establishments with—										
	90% or more specialization...	1,577	44,301	217,193	33,137	67,677	137,985	396,206	484,273	882,951	14,051
	75-89% specialization.....	82	5,594	29,763	4,025	8,162	17,985	51,180	60,017	111,605	2,448
34421	Metal doors and frames (except storm doors) (primary product class of estab.).....	274	15,180	88,811	11,170	23,301	57,553	155,277	136,384	290,882	4,579
	Establishments with—										
	90% or more specialization....	184	8,516	49,297	6,185	12,773	31,252	88,101	70,752	157,961	2,566
	75-89% specialization.....	18	1,486	8,513	995	2,083	5,091	12,882	14,386	27,211	445
34422	Metal window sash and frames (except storm sash) (primary product class of estab.).....	322	19,725	103,667	14,702	29,617	64,589	174,741	213,928	388,537	5,911
	Establishments with—										
	90% or more specialization....	185	7,010	32,554	5,281	10,719	19,665	57,499	80,031	138,636	1,417
	75-89% specialization.....	41	1,649	7,197	1,276	2,532	4,227	14,761	20,157	34,845	795
34423	Metal molding and trim and store fronts (primary product class of estab.).....	88	5,381	28,307	4,036	8,583	18,189	56,778	70,931	127,340	3,267
	Establishments with—										
	90% or more specialization....	54	2,721	13,829	2,258	4,848	10,297	28,359	33,825	61,852	818
	75-89% specialization.....	8	524	3,373	348	730	2,019	7,174	8,373	15,454	859
34424	Metal combination screen and storm sash and doors (primary product class of estab.).....	526	12,895	60,791	9,511	19,088	36,401	106,549	159,441	267,797	3,842
	Establishments with—										
	90% or more specialization....	352	6,982	31,329	5,210	10,448	19,143	56,555	84,234	141,240	1,710
	75-89% specialization.....	73	2,428	12,295	1,643	3,354	6,580	19,412	31,734	51,497	574
34425	Metal window and door screens (primary product class of estab.).....	84	2,728	13,974	2,050	4,289	8,731	28,832	30,248	59,028	1,326
	Establishments with—										
	90% or more specialization....	50	889	4,270	693	1,370	2,818	9,372	10,217	19,610	284
	75-89% specialization.....	14	305	1,555	217	454	911	3,194	4,213	7,633	387
3443-	BOILER SHOP PRODUCTS										
	Entire industry.....	1,383	75,018	465,372	54,629	111,409	310,471	770,064	860,612	1,622,988	32,910
	Establishments with—										
	90% or more specialization...	1,092	54,151	333,741	39,217	80,162	221,980	557,958	598,440	1,148,421	22,987
	75-89% specialization.....	85	6,688	42,961	5,209	10,559	31,424	79,231	98,871	173,490	2,401



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued**

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
	BOILER SHOP PRODUCTS—Continued										
34431	Heat exchangers and steam condensers (primary product class of estab.).	52	6,562	43,943	4,454	9,470	27,149	73,885	72,440	147,212	2,702
	Establishments with—										
	90% or more specialization....	28	1,887	12,333	1,271	2,679	7,128	24,902	24,580	48,986	1,078
	75-89% specialization.....	7	1,324	8,576	993	2,073	5,916	16,282	15,431	31,429	942
34432	Fabricated steel plate (primary product class of estab.).....	403	14,936	95,494	11,414	23,009	65,017	149,510	188,821	336,088	7,475
	Establishments with—										
	90% or more specialization....	229	5,602	36,260	4,279	8,850	25,216	59,050	66,891	127,019	2,347
	75-89% specialization.....	42	2,475	14,832	2,030	4,000	10,820	22,926	42,465	63,445	2,294
34433	Steel power boilers, parts and attachments (over 15 p.s.i. steam working pressure).....	48	18,585	118,201	12,714	26,195	74,224	205,312	183,195	384,658	7,637
	Establishments with—										
	90% or more specialization....	33	16,485	103,614	11,432	23,163	66,239	177,058	161,427	336,394	6,247
34434	Gas cylinders (primary product class of estab.).....	13	1,840	10,991	1,419	2,773	7,956	16,554	21,173	37,900	956
	Establishments with—										
	90% or more specialization....	7	325	1,637	238	449	1,007	1,586	5,281	6,942	709
34435	Metal tanks, complete at factory (standard line, pressure) (primary product class of estab.).....	93	3,038	18,910	2,318	4,780	13,061	31,566	51,519	81,786	912
	Establishments with—										
	90% or more specialization....	60	1,359	7,694	1,080	2,232	5,366	13,528	27,065	40,184	602
	75-89% specialization.....	8	397	2,104	303	623	1,423	3,788	6,275	9,898	99
34437	Metal tanks, complete at factory (standard line, nonpressure) (primary product class of estab.).	273	7,827	43,985	5,849	11,797	30,065	64,474	88,509	152,677	2,306
	Establishments with—										
	90% or more specialization....	155	2,644	14,243	2,059	4,115	9,912	24,635	32,338	56,748	1,055
	75-89% specialization.....	31	656	3,736	484	937	2,545	6,916	10,107	17,025	246
34438	Metal tanks and vessels, custom fabricated at factory (primary product class of estab.).....	119	10,314	64,707	7,693	16,325	44,029	105,602	117,742	222,097	3,225
	Establishments with—										
	90% or more specialization....	37	1,184	7,733	885	1,729	5,284	11,878	11,519	23,977	417
	75-89% specialization.....	21	1,724	10,063	1,344	2,822	6,924	15,784	15,601	30,299	628
34439	Metal tanks and vessels, custom fabricated and field erected (primary product class of estab.).	49	6,259	39,760	4,315	8,882	26,984	74,645	78,843	152,738	2,860
	Establishments with—										
	90% or more specialization....	19	1,405	8,086	795	1,638	4,811	20,163	18,946	38,190	421
	75-89% specialization.....	5	1,252	8,514	1,169	2,234	7,649	19,659	20,502	40,593	925
3444-	SHEET METAL WORK										
	Entire industry.....	3,250	61,651	373,284	48,041	97,079	264,665	632,384	669,778	1,303,670	26,180
	Establishments with—										
	90% or more specialization...	2,784	43,801	266,346	34,211	69,484	191,018	446,673	443,762	888,383	17,828
	75-89% specialization.....	132	4,004	24,810	3,219	6,449	17,951	43,703	52,980	97,609	969
34441	Sheet metal roofing and siding and roof drainage equipment (primary product class of estab.).....	209	7,407	45,156	5,040	10,045	25,828	84,395	181,173	266,953	5,170
	Establishments with—										
	90% or more specialization....	132	2,715	14,978	2,014	4,070	9,297	31,937	67,163	99,079	2,593
	75-89% specialization.....	22	1,595	11,410	882	1,845	5,618	18,450	34,408	53,204	734
34442	Culverts, flumes, irrigation pipes, etc. (primary product class of estab.).....	129	2,930	17,704	2,222	4,482	11,744	40,698	79,750	118,992	2,147
	Establishments with—										
	90% or more specialization....	111	2,306	13,662	1,756	3,529	9,137	31,329	64,629	94,345	1,863
	75-89% specialization.....	9	352	2,285	265	537	1,431	5,217	8,969	14,454	177
34443	Other sheet metal work (primary product class of estab.).....	1,612	40,818	256,360	32,324	65,225	185,822	405,066	344,587	751,174	13,972
	Establishments with—										
	90% or more specialization....	1,211	26,260	168,581	20,853	42,475	123,663	263,125	199,371	463,187	7,985
	75-89% specialization.....	142	3,938	24,644	3,201	6,310	18,269	42,241	34,692	76,390	940

**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued**

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3449-	MISCELLANEOUS METAL WORK, N.E.C.										
	Entire industry.....	697	24,992	145,042	16,963	34,510	88,843	283,427	420,857	704,166	11,475
	Establishments with—										
	90% or more specialization....	545	17,470	101,663	11,671	23,888	62,311	203,622	309,349	512,358	8,265
	75-89% specialization.....	43	1,816	10,593	1,171	2,376	5,749	21,573	36,598	58,396	751
34492	Prefabricated and portable metal buildings and parts (primary product class of estab.).....	122	7,910	49,507	5,351	10,816	28,996	99,901	122,511	221,533	4,580
	Establishments with—										
	90% or more specialization....	78	4,695	29,768	3,309	6,681	18,455	63,355	88,700	151,390	3,396
	75-89% specialization.....	17	1,121	6,313	794	1,622	3,957	14,153	13,547	27,729	183
34493	Miscellaneous metal building materials and custom wall (primary product class of estab.).....	168	13,038	76,665	8,468	17,615	46,414	146,646	264,681	411,026	5,385
	Establishments with—										
	90% or more specialization.....	112	8,384	49,383	5,167	10,635	28,640	97,613	175,679	271,276	3,523
	75-89% specialization.....	22	1,217	7,320	701	1,576	3,621	11,693	28,941	42,733	611



TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
INDUSTRY 3441.—FABRICATED STRUCTURAL STEEL								
Ferrous foundry.....	16	5	7	4	266	8	70	188
Nonferrous foundry (except die casting).....	7	3	3	1	59	5	(D)	(D)
Nonferrous die casting.....	1	1	-	-	(D)	(D)	-	-
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	27	17	8	2	176	23	(D)	(D)
Electroplating and other plating.....	4	3	1	-	9	(D)	(D)	-
Galvanizing and other hot dip coating.....	7	1	2	4	162	(D)	(D)	137
Heat treating of metals.....	16	12	4	-	55	19	36	-
Automatic screw machine department.....	8	8	-	-	9	9	-	-
Machine shop.....	197	121	56	20	1,595	228	508	859
Tool and die shop.....	25	24	-	1	69	(D)	-	(D)
Foundry pattern shop.....	13	8	5	-	58	10	48	-
Plate or structural fabrication.....	751	145	291	315	33,753	197	3,102	30,454
Stamping, blanking and forming of metals.....	154	94	43	17	1,146	179	395	572
Painting, lacquering and enameling on metals.....	422	329	80	13	1,654	505	662	487
INDUSTRY 3442.—METAL DOORS, SASH, AND TRIM								
Ferrous foundry.....	1	-	1	-	(D)	-	(D)	-
Nonferrous foundry (except die casting).....	10	4	5	1	116	6	(D)	(D)
Nonferrous die casting.....	8	4	3	1	70	9	(D)	(D)
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	11	5	6	-	73	7	66	-
Electroplating and other plating.....	26	11	11	4	343	34	102	207
Galvanizing and other hot dip coating.....	4	2	-	2	54	(D)	-	(D)
Heat treating of metals.....	19	14	5	-	71	26	45	-
Automatic screw machine department.....	4	2	2	-	15	(D)	(D)	-
Machine shop.....	105	56	36	13	1,069	108	347	614
Tool and die shop.....	74	50	22	2	373	100	(D)	(D)
Foundry pattern shop.....	5	5	-	-	6	6	-	-
Plate or structural fabrication.....	57	24	15	18	1,077	35	148	894
Stamping, blanking and forming of metals.....	207	99	49	59	4,531	163	500	3,868
Painting, lacquering and enameling on metals.....	172	139	24	9	744	218	232	294
INDUSTRY 3443.—BOILER SHOP PRODUCTS								
Ferrous foundry.....	6	1	1	4	299	(D)	(D)	(D)
Nonferrous foundry (except die casting).....	2	1	1	-	(D)	(D)	(D)	-
Nonferrous die casting.....	-	-	-	-	-	-	-	-
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	13	4	7	2	198	12	(D)	(D)
Electroplating and other plating.....	2	2	-	-	(D)	(D)	-	-
Galvanizing and other hot dip coating.....	8	6	1	1	67	(D)	(D)	(D)
Heat treating of metals.....	70	52	14	4	294	94	101	99
Automatic screw machine department.....	10	9	-	1	42	(D)	-	(D)
Machine shop.....	234	112	86	36	2,854	205	810	1,839
Tool and die shop.....	24	15	8	1	212	35	(D)	(D)
Foundry pattern shop.....	15	9	6	-	75	19	56	-
Plate or structural fabrication.....	511	97	188	226	19,486	141	1,974	17,371
Stamping, blanking and forming of metals.....	214	113	74	27	3,006	220	647	2,139
Painting, lacquering and enameling on metals.....	301	266	30	5	861	400	271	190
INDUSTRY 3444.—SHEET METAL WORK								
Ferrous foundry.....	3	2	-	1	24	(D)	-	(D)
Nonferrous foundry (except die casting).....	3	2	-	1	142	(D)	-	(D)
Nonferrous die casting.....	1	1	-	-	(D)	(D)	-	-
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	12	10	1	1	82	(D)	(D)	(D)
Electroplating and other plating.....	11	11	-	-	18	18	-	-
Galvanizing and other hot dip coating.....	21	13	8	-	106	20	86	-
Heat treating of metals.....	17	17	-	-	30	30	-	-
Automatic screw machine department.....	7	7	-	-	13	13	-	-
Machine shop.....	182	121	50	11	996	229	378	389
Tool and die shop.....	118	94	22	2	408	161	(D)	(D)
Foundry pattern shop.....	17	15	2	-	46	(D)	(D)	-
Plate or structural fabrication.....	189	82	68	39	2,473	162	608	1,703
Stamping, blanking and forming of metals.....	619	233	243	143	8,879	390	2,286	6,203
Painting, lacquering and enameling on metals.....	302	240	54	8	1,063	336	422	305

See footnotes at end of table.

TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963—Continued

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3446.—ARCHITECTURAL METAL WORK							
Ferrous foundry.....	6	2	3	1	60	(D)	(D)	(D)
Nonferrous foundry (except die casting).....	6	2	4	-	41	(D)	(D)	-
Nonferrous die casting.....	3	2	1	-	13	(D)	(D)	-
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	17	14	1	2	70	15	(D)	(D)
Electroplating and other plating.....	6	4	2	-	22	(D)	(D)	-
Galvanizing and other hot dip coating.....	1	1	-	-	4	(D)	-	-
Heat treating of metals.....	5	4	1	-	9	(D)	(D)	-
Automatic screw machine department.....	4	3	-	1	52	(D)	-	(D)
Machine shop.....	52	41	8	3	286	73	114	99
Tool and die shop.....	25	18	6	1	101	25	(D)	(D)
Foundry pattern shop.....	10	8	2	-	32	(D)	(D)	-
Plate or structural fabrication.....	103	44	43	16	1,646	90	434	1,122
Stamping, blanking and forming of metals.....	74	40	25	9	670	63	238	369
Painting, lacquering and enameling on metals.....	158	145	10	3	379	221	74	84
	INDUSTRY 3449.—MISCELLANEOUS METAL WORK							
Ferrous foundry.....	4	4	-	-	8	8	-	-
Nonferrous foundry (except die casting).....	1	1	-	-	(D)	(D)	-	-
Nonferrous die casting.....	3	3	-	-	3	3	-	-
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	6	4	2	-	18	(D)	(D)	-
Electroplating and other plating.....	2	1	1	-	(D)	(D)	(D)	-
Galvanizing and other hot dip coating.....	1	1	-	-	(D)	(D)	-	-
Heat treating of metals.....	7	4	3	-	25	5	20	-
Automatic screw machine department.....	5	3	2	-	23	(D)	(D)	-
Machine shop.....	52	25	21	6	452	40	170	242
Tool and die shop.....	20	16	4	-	74	32	42	-
Foundry pattern shop.....	3	3	-	-	3	3	-	-
Plate or structural fabrication.....	94	22	30	42	2,695	29	297	2,369
Stamping, blanking and forming of metals.....	75	23	17	35	2,187	35	172	1,980
Painting, lacquering and enameling on metals.....	84	56	22	6	485	92	197	196

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below.

Item	Industry					
	3441	3442	3443	3444	3446	3449
Total number of establishments in the industry.....	1,718	1,817	1,383	3,250	1,334	697
Number of establishments which reported one or more of the specified operations.....	866	362	637	811	226	169
Percent of industry production workers in these establishments.....	70-75	45-50	70-75	50-55	60-65	60-65
Number of establishments which reported that "none" of the operations apply.....	250	634	194	710	157	134
Percent of industry production workers in these establishments.....	1-5	10-15	1-5	10-15	15-20	10-15
Percent of industry production workers in establishments which completed metalworking operations inquiry.....	75-80	60-65	75-80	60-65	75-80	70-75

(D) Withheld to avoid disclosing figures for individual companies.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not, as in table 4, based on total employment in the establishment.





## SCREW MACHINE PRODUCTS, BOLTS, METAL STAMPINGS, AND METAL SERVICES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3451—Screw Machine Products
- 3452—Bolts, Nuts, Rivets, and Washers
- 3461—Metal Stampings
- 3471—Electroplating, Plating, Polishing, Anodizing, and Coloring
- 3479—Coating, Engraving, and Allied Services, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3451—SCREW MACHINE PRODUCTS

This industry comprises establishments primarily engaged in manufacturing automatic or hand screw machine products from rod, bar, or tube stock of metal, fiber, plastics, or other materials. The products of this industry consist of a wide variety of unassembled parts and are usually manufactured on a job or order basis. Establishments primarily engaged in manufacturing standard bolts, nuts, rivets, screws, and other industrial fasteners on headers, threaders, and nut forming machines are classified in industry 3452. For a detailed list of products of industry 3451, refer to table 6A, product codes 3451012 to 3451098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Screw Machine Products Industry totaled \$589 million. This amount included shipments of screw machine products (primary products) valued at \$539 million, shipments of other products (secondary products) valued at \$19 million, and miscellaneous receipts at \$32 million.

This industry's shipments of screw machine products represented 97 percent of its total product shipments. The industry specialization ratio in 1958 was 94 percent. Secondary products shipped by this industry in 1963 included bolts, nuts, and other standard industrial fasteners (\$4.4 million), and headed products (produced by cold and hot heading) other than industrial fasteners (\$2.8 million).



Shipments of screw machine products by this industry represented 90 percent of all shipments of these products (\$599 million) by all industries. In 1958 the coverage ratio was 87 percent. Other industries shipping screw machine products included industry 3452, Bolts, Nuts, Rivets, and Washers, \$21.3 million; and industry 3717, Motor Vehicles and Parts, \$5.6 million.

Industry 3451 includes establishments producing a wide variety of items such as small machinery parts, etc., on hand operated and automatic screw machines from rod, bar, and tube stock and from castings and forgings. These products are produced almost entirely on a job or order basis. Included are screw machine departments or plants of companies primarily engaged in producing finished end products where such activities could be reported separately. However, in many instances captive screw machine operations were so integrated with other activities that separate reports were not obtained and the entire establishment was classified on the basis of its primary products.

As shown in table 7A, the principal materials consumed by the screw machine products industry are carbon steel bar stock and copper rod, bar, and mechanical wire. These materials, together with the other specific materials listed in table 7A accounted for 63 percent of the total cost of materials consumed by this industry.

#### 3452—BOLTS, NUTS, RIVETS, AND WASHERS

This industry comprises establishments primarily engaged in manufacturing bolts, nuts, screws, rivets, washers, formed and threaded wire goods, and special industrial fasteners. Rolling mills engaged in manufacturing similar products are classified in Major Group 33, and establishments primarily engaged in manufacturing screw machine products in industry 3451. For a detailed list of products of industry 3452, refer to table 6A, product codes 3452101 to 3452398.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Bolts, Nuts, Rivets, and Washers Industry totaled \$1,218 million. This amount included shipments of bolts, nuts, rivets, and washers (primary products) valued at \$1,058 million, shipments of other products (secondary products) valued at \$92 million, and miscellaneous receipts (mainly resales) at \$68 million.

This industry's shipments of bolts, nuts, rivets, and washers represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 included screw machine products (\$21.3 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 74 percent of the total industry shipments are represented by plants specializing in product class 34521, Bolts, nuts, and other standard industrial fasteners.

Shipments of bolts, nuts, rivets, and washers by this industry represented 90 percent of all shipments of these products (\$1,176 million) by all industries. In 1958 the coverage ratio was 87 percent.

Plants included in industry 3452 in general are engaged in the manufacture of bolts, nuts, screws, and rivets of standard types and sizes on heading, threading, and nut forming machines. These establishments may be also engaged in the production of special industrial fasteners which require special or added operations or the use of special tools and fixtures. These items include bolts, nuts, screws, etc., of nonstandard types and sizes and special fasteners made by stamping and other forming processes. To a lesser extent these plants manufacture standard type bolts, nuts, screws, etc., on automatic and hand operated screw machines.

The selected materials listed in table 7 accounted for 70 percent of the total cost of materials consumed by industry 3452 establishments. Carbon steel bars and wire, the two principal materials consumed, represented 41 percent of the cost of materials used by the bolt, nut, washer, and rivet industry.

The production index for the primary products of the industry increased to 137 in 1963 from the 1958 level of 99. The unit value index for 1963 was 124 compared to 123 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3461—METAL STAMPINGS

This industry comprises establishments primarily engaged in manufacturing metal stampings. These establishments generally operate on a job or order basis, manufacturing metal stampings for sale to others or for interplant transfer. Establishments which produce metal stampings for incorporation in end products produced in the same establishment are classified on the basis of the end products. For a detailed list of products of industry 3461, refer to table 6A, product codes 3461111 to 3461898.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Establishments in industry 3461 produce both job stampings and finished end products. Job stampings are made from materials owned by the stamping establishments as well as from materials owned by the customer and processed by the stamping establishments on a contract or commission basis. These stampings are mainly parts which are sold to manufacturers for incorporation into any of a wide variety of products such as refrigerators, agricultural machinery, radio, and television sets. Finished end products manufactured by establishments in this industry include cooking, kitchen, and hospital utensils (including domestic pressure cookers and porcelain enameled utensils), pails, ash cans, garbage cans, perforated metal products, metal commercial and home canning closures, as well as a large variety of miscellaneous items. Table 8 presents selected statistics for establishments classified according to their degree of specialization in the primary products of this industry.

Value of shipments and other receipts of the Metal Stampings Industry totaled \$2,679 million. This amount included shipments of metal stampings (primary products) valued at \$2,135 million, shipments of other products (secondary products) valued at \$410 million, and miscellaneous receipts (mainly resales) at \$134 million.

This industry's shipments of metal stampings represented 84 percent of its total product shipments. The industry specialization ratio in 1958 was 86 percent. Secondary products shipped by this industry in 1963 included special dies and tools, die sets, jigs, and fixtures (\$66 million), and other small household electric appliances (\$31 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent to this specialization is indicated in table 8. Approximately 27 percent of the total industry shipments are represented by plants specializing in product class 34612, Job stamping, except automotive; and 31 percent in product class 34613, Automotive job stampings.

Shipments of metal stampings by this industry represented 86 percent of all shipments of these products (\$2,484 million) by all industries. In 1958 the coverage ratio was 87 percent.

This coverage ratio measures only the coverage of this industry in terms of the total measurable output of metal stampings. This output is limited to the value of stampings



(including the specific stamped products which are classified as primary products of this industry) which were produced for sale or for interplant transfer by establishments classified in industry 3461 and by establishments in other industries where these products were produced as secondary products. However, no data are available on the value of stampings produced and used as component parts by establishments classified in other industries. Such a value, if it could be measured, might approximate or even exceed the total value of all stampings produced commercially or for interplant transfer. While no such value figure is available, table 9 for most of the industries within Major Groups 34, 35, 36, and 37, does show the importance of specific metalworking operations including "stamping, blanking, forming, and drawing." These data are based on the number of employees engaged in the operations listed.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3461, e.g., 34614, Stamped and spun hospital utensils and cooking and kitchen household utensils, aluminum, 99 percent; and 34618, Other stamped and pressed metal end products, 74 percent.

Industry 3461 includes the stamping departments of establishments primarily engaged in producing fabricated metal products where such stamping activities could be reported separately. However, where captive stamping operations were closely integrated with other activities, such as in the production of household appliances, farm equipment, motor vehicles, etc., separate reports were not obtained.

Plants in the Metal Stampings Industry commonly perform a number of auxiliary metalworking operations. As shown in table 9, a considerable number of establishments in this industry maintain tool and die departments and machine shops for the production of stamping and forming dies used in their metal fabricating operations.

The Bureau of the Census collects monthly data on commercial and home canning closures of metal which are primary products of industry 3461. These statistics are published in the Current Industrial Reports Series M34H, Closures for Glass Containers and Crowns. The census figures shown in table 6A differ slightly from the sum of the 1963 monthly data for metal closures because a few establishments not included in the monthly survey reported the manufacture of metal closures in the census. In other instances manufacturers covered by the monthly survey submitted revised annual data on their 1963 census reports. The monthly survey M34H also covers closures other than metal. Since these products, such as plastic caps and paper closures, are not primary products of industry 3461 they have been classified in other appropriate industries for the census.

#### 3471—ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING

This industry comprises establishments primarily engaged in all types of electroplating, plating, anodizing, coloring, and finishing of metals and formed products for the trade. Most of the work done in this industry is done on materials owned by others.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Plating and Polishing Industry totaled \$518 million. This amount included shipments of electroplating, plating, and polishing (primary products) valued at \$502 million, shipments of other products (secondary products) valued at \$10 million, and miscellaneous receipts (mainly resales) at \$5 million.

#### 3479—COATING, ENGRAVING, AND ALLIED SERVICES, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in performing the following types of services on metals: (1) enameling, lacquering, and varnishing metal products

for the trade; (2) hot dip galvanizing of mill sheets, plates and bars, castings, and formed products fabricated of iron and steel; in hot dip coating such items with aluminum, lead, or zinc; in retinning cans and utensils; (3) in engraving, chasing and etching jewelry, silverware, notarial and other seals and other metal products for the trade and for job contracting for purposes other than printing; (4) and other metal services, n.e.c. Establishments primarily engaged in electroplating, plating, polishing, anodizing, coloring, and finishing of metals and formed products for the trade are classified in industry 3471; and those producing porcelain enameled products in industry 3461. For a detailed list of products of industry 3479, refer to table 6A, product codes 3479011 to 3479051.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Metal Coating, Engraving, Etc., Industry totaled \$322 million. This amount included shipments of coating, engraving, and allied services, n.e.c. (primary products) valued at \$286 million, shipments of other products (secondary products) valued at \$23 million, and miscellaneous receipts (mainly resales), at \$13 million.

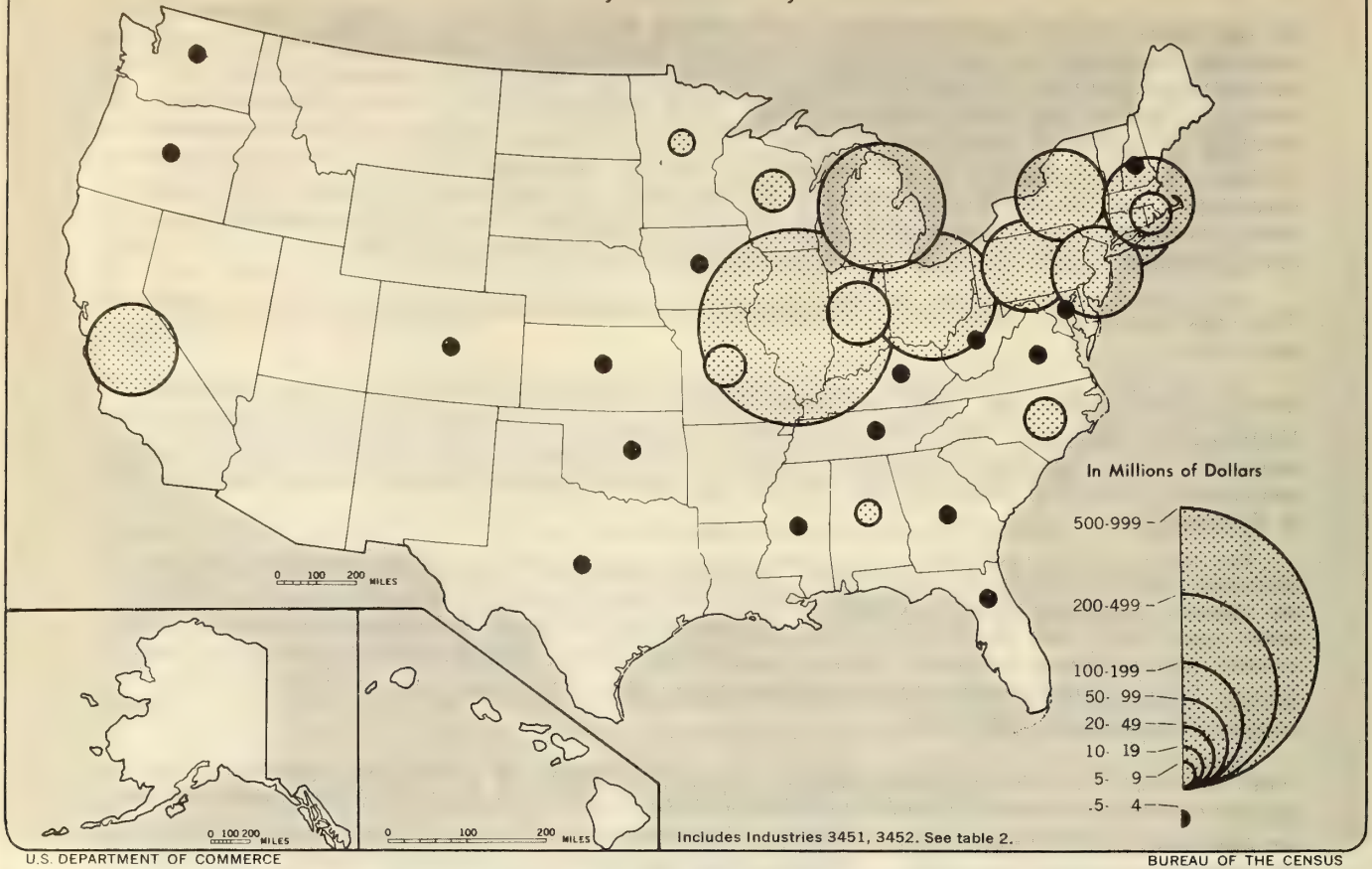
Industry 3479 includes establishments engaged primarily in enameling materials owned by others. Establishments primarily engaged in manufacturing vitreous-enameled products from their own materials are included in industry 3461. In addition, industry 3479 covers both vitreous and other types of enameling (such as baked enameling) whereas industry 3461 includes only vitreous-enameling establishments as well as those producing other types of metal stampings.

This industry includes establishments primarily engaged in galvanizing iron and steel sheets or formed products; in coating iron sheets or formed products with aluminum, lead, or zinc; and in retinning cans and utensils. Most of the work done in this industry is done on materials owned by others. Rolling mills engaged in galvanizing, tinning, and other coating are classified in industry 3312, Blast Furnaces and Steel Mills, and establishments primarily engaged in manufacturing galvanized steel wire from purchased metal rods or bars are classified in industry 3315, Steel Wire Drawing, Etc.

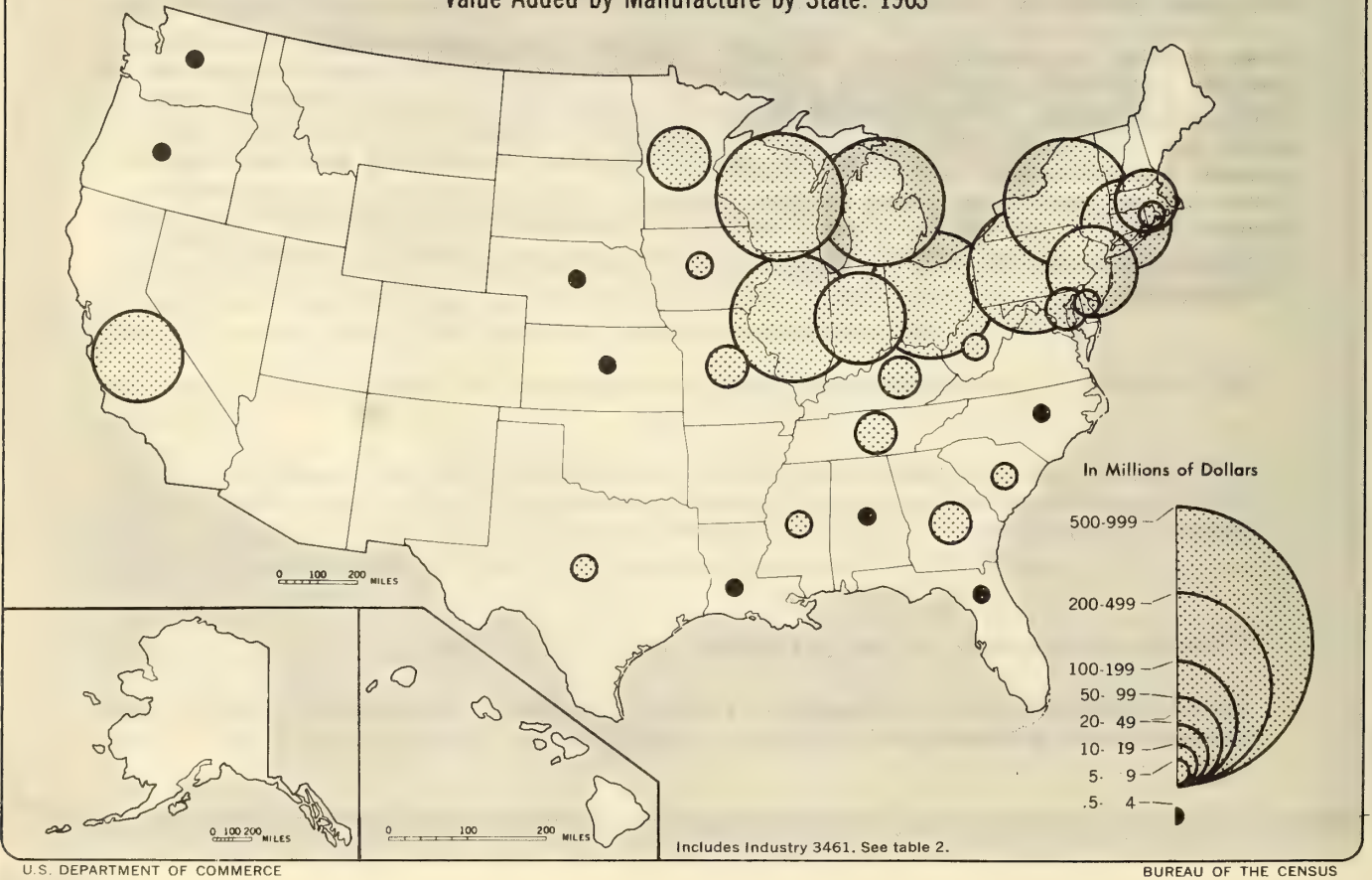
Also included are establishments primarily engaged in engraving, chasing, and etching jewelry, silverware, notarial seals, and other metal products for the trade, for purposes other than printing. Establishments primarily engaged in preparing metal lithographic plates and in printing from such media are classified in industry 2752, Printing, Lithographic; establishments primarily engaged in engraving and etching steel and copper plates and in using these plates to print stationery, visiting cards, etc., are included in industry 2753, Engraving and Plate Printing; and establishments primarily engaged in preparing photoengraved plates (halftones and line-cuts) are classified in industry 2793, Photoengraving.



# SCREW MACHINE PRODUCTS, BOLTS ETC: SIC 345 Value Added by Manufacture by State: 1963



# METAL STAMPINGS: SIC 346 Value Added by Manufacture by State: 1963



# METAL SERVICES, N.E.C.: SIC 347 Value Added by Manufacture by State: 1963

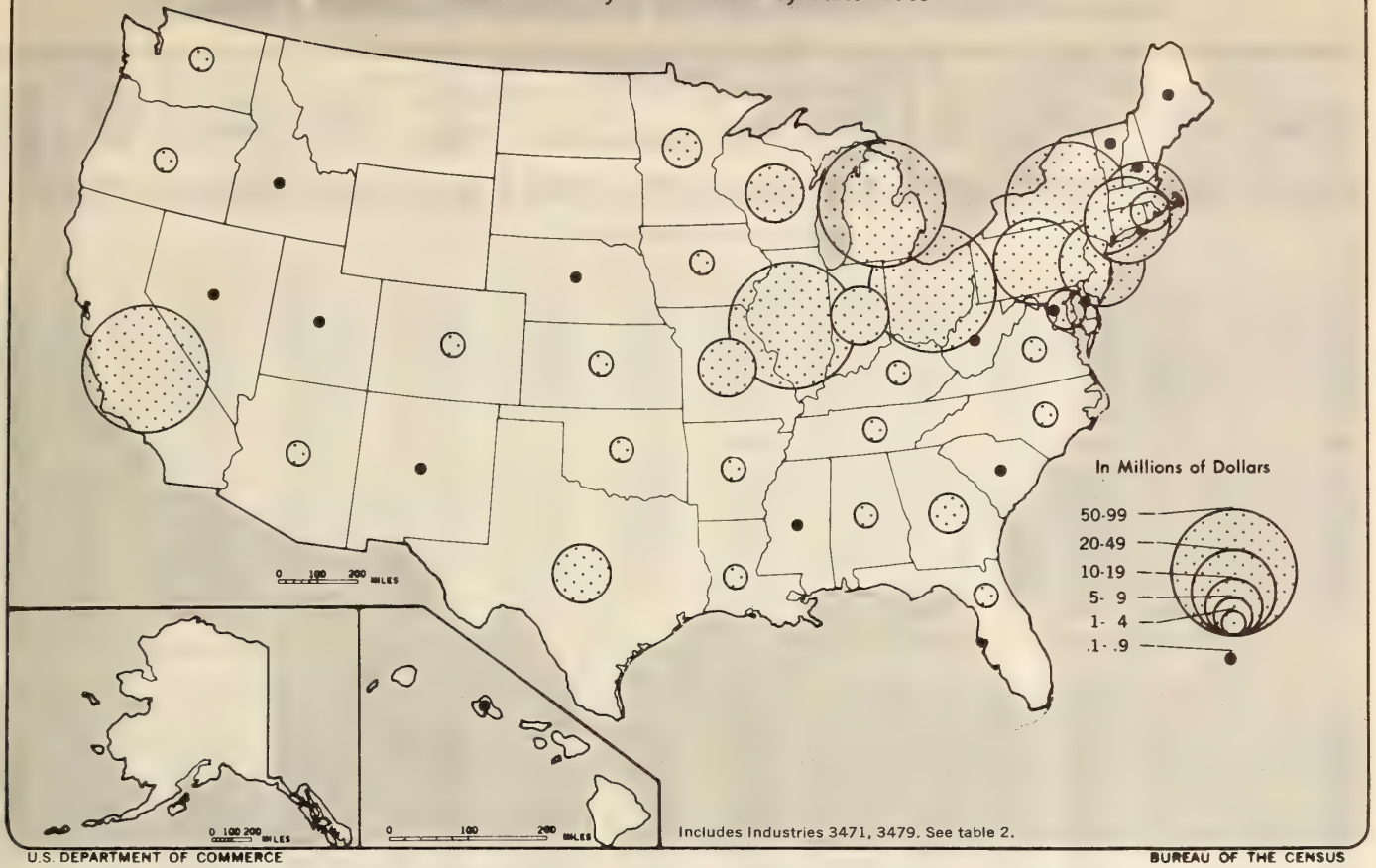




TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new  (\$1,000)	Spec- ializa- tion ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3451.—SCREW MACHINE PRODUCTS														
1963.....	1,861	1,874	516	36,909	213,172	30,796	64,270	159,991	358,961	232,878	588,981	18,676	97	90
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	36,513	192,070	29,964	58,870	140,181	312,415	210,628	518,251	(12,636)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	32,087	164,361	26,312	50,824	116,568	268,787	186,696	457,982	(8,764)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	35,178	177,097	28,919	57,705	129,876	300,654	204,245	502,843	(S)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	34,153	169,230	28,930	58,086	129,436	301,277	221,704	519,095	(S)	(NA)	(NA)
1958.....	1,785	1,792	419	31,836	154,925	25,892	51,915	113,989	249,975	175,111	425,113	11,222	94	87
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	38,722	182,223	32,390	66,675	135,061	296,665	194,840	490,070	12,608	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	38,864	178,084	32,683	67,481	133,654	292,034	204,467	491,574	17,061	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	36,227	162,123	30,627	64,864	122,124	267,359	192,910	454,089	14,521	(NA)	(NA)
1954.....	1,791	1,795	411	35,009	151,444	29,694	61,030	112,641	243,565	158,592	406,457	11,886	93	82
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	46,289	206,105	40,321	88,682	164,255	350,721	223,068	573,789	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	44,264	184,490	39,006	86,121	148,721	322,539	219,693	542,232	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	41,071	162,326	36,268	79,406	131,064	292,056	205,106	497,162	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	30,096	103,496	25,469	53,776	82,128	184,373	127,350	311,723	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,761	77,926	18,614	36,099	57,461	120,400	74,417	194,817	(NA)	(NA)	(NA)
1947.....	1,205	1,209	(NA)	28,623	87,292	24,859	52,461	69,235	144,791	77,224	222,015	10,800	94	86
1939 <sup>2</sup> .....	(NA)	288	(NA)	(NA)	(NA)	10,571	(NA)	14,287	31,654	20,910	52,564	(NA)	(NA)	(NA)
INDUSTRY 3452.—BOLTS, NUTS, RIVETS, AND WASHERS														
1963.....	504	573	323	57,618	371,026	43,972	92,502	257,477	695,276	527,860	1,218,247	31,431	92	90
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	57,420	360,644	43,533	91,726	241,121	649,098	514,665	1,158,030	30,986	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	55,031	324,081	41,481	83,648	214,778	561,247	445,394	1,005,484	21,245	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	58,521	331,414	44,332	88,768	221,805	595,859	465,279	1,044,837	29,260	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	58,796	338,961	45,088	94,932	231,746	636,021	487,254	1,112,915	(33,219)	(NA)	(NA)
1958.....	468	525	283	53,270	286,039	40,202	80,579	191,886	504,731	370,608	880,328	43,707	91	87
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	59,457	318,535	46,640	95,146	222,077	584,979	398,388	965,126	51,443	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	58,745	304,470	46,116	96,483	215,870	554,333	387,681	921,496	36,234	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	59,760	298,732	47,853	104,238	217,577	568,138	399,048	945,375	37,021	(NA)	(NA)
1954.....	421	457	256	53,729	246,235	42,309	86,427	173,019	421,512	318,783	738,482	26,090	91	89
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	57,543	264,384	46,635	100,732	195,256	483,374	330,895	814,269	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	52,652	236,112	42,549	91,815	173,203	447,821	284,548	732,369	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	53,468	232,517	43,986	100,182	175,577	494,935	312,096	807,031	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	46,317	176,504	37,800	82,841	131,314	357,453	213,769	571,222	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	42,532	142,063	33,970	68,279	101,820	249,728	157,409	407,137	(NA)	(NA)	(NA)
1947.....	339	364	217	49,235	151,514	40,908	85,895	115,790	285,451	178,301	463,752	18,263	92	86
1939 <sup>2</sup> .....	(NA)	219	(NA)	(NA)	(NA)	20,722	(NA)	26,216	63,999	50,634	114,633	(NA)	(NA)	(NA)
INDUSTRY 3451 and 3452.—TOTAL FOR BOLTS, NUTS, RIVETS, AND WASHERS AND SCREW MACHINE PRODUCTS <sup>2</sup>														
1963.....	(NA)	2,447	839	94,527	584,198	74,768	156,772	417,468	1,054,237	760,738	1,807,228	50,107	(NA)	(NA)
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	93,933	552,714	73,497	150,596	381,302	961,513	725,293	1,676,281	(43,622)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	87,118	488,442	67,793	134,472	331,346	830,034	632,090	1,463,466	(30,009)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	93,699	508,511	73,251	146,773	350,859	896,513	669,524	1,547,680	(NA)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	92,949	508,191	74,018	153,409	357,619	937,298	708,958	1,632,010	(NA)	(NA)	(NA)
1958.....	(NA)	2,317	702	85,106	440,964	66,094	132,494	305,875	754,706	545,719	1,305,441	54,929	(NA)	(NA)
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	98,179	500,758	79,030	161,821	357,138	881,664	593,228	1,455,196	64,051	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	97,609	482,554	78,799	163,964	349,524	846,367	592,146	1,413,070	53,295	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	95,987	460,855	78,480	169,102	339,701	835,497	591,958	1,399,464	51,542	(NA)	(NA)
1954.....	(NA)	2,252	667	88,738	397,679	72,003	147,457	285,660	665,077	477,375	1,144,939	37,976	(NA)	(NA)
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	103,832	470,489	86,956	189,414	359,511	834,095	553,963	1,388,058	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	96,916	420,602	81,555	177,736	321,924	770,360	504,241	1,274,601	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	94,539	394,843	80,254	179,588	306,641	786,991	517,202	1,304,193	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	76,413	280,000	63,269	136,617	213,442	541,826	341,119	882,943	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	65,293	219,989	52,584	104,378	159,281	370,128	231,826	601,954	(NA)	(NA)	(NA)
1947.....	(NA)	1,573	(NA)	77,858	238,806	65,767	138,356	185,025	430,242	255,525	685,767	(NA)	(NA)	(NA)
1939 <sup>2</sup> .....	(NA)	507	(NA)	(NA)	(NA)	31,293	(NA)	40,503	95,653	71,544	167,197	(NA)	(NA)	(NA)
1937.....	(NA)	449	(NA)	43,125	63,685	38,127	(NA)	50,118	113,748	87,056	200,804	(NA)	(NA)	(NA)
1935.....	(NA)	439	(NA)	31,854	40,274	27,524	(NA)	30,200	63,921	56,528	120,449	(NA)	(NA)	(NA)
1933.....	(NA)	358	(NA)	21,624	21,266	18,722	(NA)	16,106	37,488	28,835	66,323	(NA)	(NA)	(NA)
1931.....	(NA)	391	(NA)	(NA)	(NA)	22,565	(NA)	23,655	50,167	33,014	83,181	(NA)	(NA)	(NA)
1929.....	(NA)	390	(NA)	40,557	66,117	36,056	(NA)	51,103	124,692	83,675	208,367	(NA)	(NA)	(NA)
1927.....	(NA)	333	(NA)	31,038	45,840	27,304	(NA)	35,379	71,684	64,212	135,896	(NA)	(NA)	(NA)
1925.....	(NA)	332	(NA)	31,704	46,101	27,978	(NA)	36,136	71,958	63,583	135,541	(NA)	(NA)	(NA)
1923.....	(NA)	316	(NA)	32,829	46,332	29,196	(NA)	37,150	73,938	63,439	137,377	(NA)	(NA)	(NA)
1921.....	(NA)	293	(NA)	21,677	27,430	18,801	(NA)	19,614	32,970	28,587	61,557	(NA)	(NA)	(NA)
1919.....	(NA)	298	(NA)	36,956	47,137	33,118	(NA)	37,943	80,407	64,812	145,219	(NA)	(NA)	(NA)
1914.....	(NA)	180	(NA)	20,671	13,085	18,747	(NA)	10,221	18,546	18,321	36,867	(NA)	(NA)	(NA)
1909.....	(NA)	162	(NA)	17,945	10,164	16,476	(NA)	8,217	17,425	16,273	33,698	(NA)	(NA)	(NA)
1904.....	(NA)	121	(NA)	12,543	6,490	11,543	(NA)	5,140	10,043	9,489	19,532	(NA)	(NA)	(NA)
1899.....	(NA)	105	(NA)	11,854	5,282	11,187	(NA)	4,416	8,845	9,791	18,636	(NA)	(NA)	(NA)

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Special- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3461.—METAL STAMPINGS														
1963.....	2,491	2,574	1,116	132,179	772,557	108,336	222,005	567,309	1,368,993	1,324,939	2,678,996	64,248	84	86
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	132,797	754,943	107,820	224,828	546,941	1,310,428	1,305,551	2,605,775	68,728	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	125,312	684,112	100,597	207,293	486,134	1,181,190	1,160,058	2,338,008	48,387	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	134,290	729,036	107,966	225,649	521,060	1,220,361	1,229,952	2,450,795	56,508	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	135,264	727,827	109,693	227,258	524,330	1,240,511	1,269,112	2,498,962	(80,926)	(NA)	(NA)
1958.....	2,372	2,454	1,039	125,300	644,217	99,759	199,664	457,345	1,045,220	1,039,387	2,095,409	50,407	86	87
1954.....	(NA)	2,320	930	135,472	594,833	112,338	225,687	440,746	958,067	868,005	1,841,508	39,290	(NA)	(NA)
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	176,732	765,310	150,112	304,690	593,182	1,253,327	1,248,509	2,501,836	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	148,799	622,345	122,244	255,230	462,789	978,556	917,602	1,896,152	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	159,300	603,762	133,158	272,528	454,910	989,891	1,000,456	1,990,347	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	148,657	528,704	124,140	256,925	400,806	875,998	878,694	1,754,692	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	125,487	417,054	105,893	206,489	308,403	657,000	617,043	1,274,043	(NA)	(NA)	(NA)
1947.....	(NA)	2,032	(NA)	144,961	418,609	125,725	153,130	329,141	691,229	554,963	1,246,192	(NA)	(NA)	(NA)
1939 <sup>3</sup> .....	(NA)	1,020	(NA)	(NA)	(NA)	67,991	(NA)	81,420	192,100	178,430	370,530	(NA)	(NA)	(NA)
INDUSTRY 3471.—PLATING AND POLISHING														
1963 <sup>4</sup> .....	2,968	3,023	677	44,962	223,504	37,722	74,846	169,592	370,202	148,320	517,572	20,032	( <sup>5</sup> )	( <sup>5</sup> )
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	49,249	231,454	41,624	80,369	182,024	401,231	147,858	549,107	25,541	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	43,898	200,502	37,073	71,644	161,284	330,935	128,289	458,662	(16,196)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	44,232	199,972	38,137	72,589	161,491	336,996	128,307	465,123	19,071	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	43,307	189,521	37,158	72,001	142,341	325,751	127,291	451,251	(15,185)	(NA)	(NA)
1958 <sup>4</sup> .....	2,614	2,646	542	36,471	156,274	30,543	59,082	117,703	253,784	106,108	359,116	15,877	( <sup>5</sup> )	( <sup>5</sup> )
1954 <sup>4</sup> .....	2,423	2,451	465	36,066	136,933	31,221	62,878	105,443	214,330	92,867	307,398	12,862	( <sup>5</sup> )	( <sup>5</sup> )
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	40,999	157,457	35,493	72,804	122,885	259,280	106,642	365,922	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,934	98,777	21,981	45,883	77,853	163,414	90,747	254,161	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	26,595	95,024	23,941	48,160	76,517	172,246	90,550	262,796	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	26,812	83,009	23,879	49,775	68,619	150,227	84,794	235,021	(NA)	(NA)	(NA)
1947.....	1,789	1,804	(NA)	28,626	77,503	25,951	52,156	65,388	127,890	52,786	180,676	(NA)	( <sup>5</sup> )	( <sup>5</sup> )
1939.....	(NA)	643	(NA)	9,653	12,548	8,206	(NA)	9,383	20,868	7,300	28,168	(NA)	(NA)	(NA)
1937.....	(NA)	547	(NA)	9,330	12,300	8,256	(NA)	9,828	19,871	6,815	26,686	(NA)	(NA)	(NA)
1935.....	(NA)	553	(NA)	7,206	8,974	6,238	(NA)	6,941	13,679	4,649	18,328	(NA)	(NA)	(NA)
1933.....	(NA)	423	(NA)	4,435	4,295	3,956	(NA)	3,715	7,680	2,352	10,032	(NA)	(NA)	(NA)
1931.....	(NA)	464	(NA)	(NA)	(NA)	4,107	(NA)	5,642	10,282	2,802	13,084	(NA)	(NA)	(NA)
1929.....	(NA)	534	(NA)	6,843	12,094	5,928	(NA)	9,537	18,929	4,799	23,728	(NA)	(NA)	(NA)
1927.....	(NA)	419	(NA)	4,126	6,995	3,556	(NA)	5,629	10,595	3,335	13,930	(NA)	(NA)	(NA)
1925.....	(NA)	449	(NA)	3,843	6,340	3,337	(NA)	5,254	9,900	2,541	12,441	(NA)	(NA)	(NA)
1923.....	(NA)	446	(NA)	4,017	6,350	3,374	(NA)	5,195	9,684	2,613	12,297	(NA)	(NA)	(NA)
1921.....	(NA)	392	(NA)	2,844	4,325	2,460	(NA)	3,563	6,081	1,960	8,041	(NA)	(NA)	(NA)
1919.....	(NA)	515	(NA)	3,442	4,537	3,024	(NA)	3,794	7,751	2,639	10,390	(NA)	(NA)	(NA)
1914.....	(NA)	479	(NA)	2,918	2,094	2,584	(NA)	1,713	3,437	1,336	4,773	(NA)	(NA)	(NA)
1909.....	(NA)	461	(NA)	3,004	1,895	2,717	(NA)	1,652	3,305	1,205	4,510	(NA)	(NA)	(NA)
1904.....	(NA)	312	(NA)	2,087	1,225	1,943	(NA)	1,093	2,218	747	2,965	(NA)	(NA)	(NA)
1899.....	(NA)	302	(NA)	2,201	1,042	2,086	(NA)	949	1,936	784	2,720	(NA)	(NA)	(NA)
INDUSTRY 3479.—METAL COATING, ENGRAVING, ETC.														
1963 <sup>4</sup> .....	1,227	1,258	276	20,669	107,110	17,113	34,998	79,136	184,546	137,211	322,139	8,656	( <sup>5</sup> )	( <sup>5</sup> )
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,082	95,587	16,286	32,655	67,408	166,330	132,087	295,400	(10,556)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,492	85,201	15,546	31,265	61,367	143,775	96,473	241,121	(6,474)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,896	83,419	15,774	33,499	60,811	148,386	108,387	254,763	6,512	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,357	79,851	15,424	31,185	59,205	137,427	106,011	244,888	6,227	(NA)	(NA)
1958 <sup>4</sup> .....	986	1,003	192	15,680	68,046	12,892	25,206	49,985	108,379	88,846	196,389	4,678	( <sup>5</sup> )	( <sup>5</sup> )
1954 <sup>4</sup> .....	(NA)	782	163	12,305	45,625	10,450	20,797	33,739	70,402	34,542	105,233	3,409	( <sup>5</sup> )	( <sup>5</sup> )
1947.....	(NA)	604	(NA)	10,433	28,618	9,217	(NA)	23,135	47,443	23,366	70,809	(NA)	( <sup>5</sup> )	( <sup>5</sup> )
1939.....	(NA)	257	(NA)	5,265	7,678	4,452	(NA)	5,271	12,349	6,647	18,996	(NA)	(NA)	(NA)
1937 <sup>6</sup> .....	(NA)	215	(NA)	(NA)	(NA)	6,139	(NA)	7,434	15,967	9,048	25,015	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Footnotes continued on next page.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

## Footnotes for Table 1—34D—Continued

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>The figures for 1939 are not entirely comparable with those for earlier years. However, the figures for the "Bolts, nuts, washers, and rivets" and the "Screw machine products" industries have been combined so that figures can be shown for the period 1899-1958.

<sup>3</sup>No comparable figures are available prior to 1939.

<sup>4</sup>In this industry which contains a large number of very small establishments there is a possibility that some of these small establishments have been misclassified as to industry. This would not significantly affect the statistics other than the number of establishments.

<sup>5</sup>Relationships not meaningful because of the predominance of miscellaneous receipts, particularly receipts for contract and commission work on materials owned by others.

<sup>6</sup>No comparable figures are available prior to 1937.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(number)	(\$1,000)
INDUSTRY 3451.—SCREW MACHINE PRODUCTS													
Total.....	1,874	516	36,909	213,172	30,796	64,270	159,991	358,961	232,878	588,981	18,676	31,836	249,975
New England.....	312	80	6,105	32,653	5,090	10,652	24,079	51,152	28,535	79,478	3,343	5,517	39,088
Massachusetts.....	89	26	2,086	10,968	1,730	3,714	8,132	16,653	10,169	26,655	1,290	1,824	12,457
Connecticut.....	172	47	3,378	18,495	2,841	5,858	13,659	29,614	15,661	45,259	1,660	3,147	23,087
Middle Atlantic....	368	96	6,056	33,258	5,065	10,209	24,942	56,827	32,283	89,037	3,047	5,592	40,683
New York.....	166	46	3,126	17,156	2,631	5,288	12,792	28,322	18,297	46,687	1,189	2,776	20,334
New Jersey.....	118	30	1,767	10,252	1,448	3,029	7,570	18,587	8,486	27,023	1,513	1,564	12,337
Pennsylvania.....	84	20	1,163	5,850	986	1,892	4,580	9,918	5,500	15,327	345	1,252	8,012
East North Central.	858	266	19,051	112,799	16,044	33,892	85,776	191,785	143,181	332,398	8,797	16,136	131,282
Ohio.....	200	63	4,976	28,671	4,208	8,664	21,670	45,943	33,543	77,412	2,051	4,592	36,314
Indiana.....	70	22	1,723	9,115	1,492	3,065	7,213	17,214	11,181	28,370	695	1,436	11,363
Illinois.....	246	77	5,753	33,432	4,748	9,864	25,153	52,728	33,685	86,620	2,871	4,877	39,796
Michigan.....	284	90	5,587	35,735	4,763	10,514	27,415	66,096	58,970	124,509	2,616	4,489	38,206
Wisconsin.....	58	14	1,012	5,846	833	1,785	4,325	9,804	5,802	15,487	564	742	5,603
West North Central.	68	22	1,680	9,760	1,373	2,779	7,214	15,867	9,052	25,003	1,777	1,633	12,577
Minnesota.....	25	9	670	4,056	582	1,143	3,214	6,372	3,487	10,029	1,283	529	4,481
Missouri.....	30	8	810	4,767	621	1,298	3,316	7,892	4,741	12,558	445	909	6,894
South Atlantic.....	29	4	408	1,854	333	683	1,364	4,978	1,769	6,738	171	271	1,899
East South Central.	7	4	184	878	149	318	668	1,732	988	2,647	152	121	816
West South Central.	19	8	365	1,998	305	684	1,457	3,456	2,116	5,492	187	194	1,723
West.....	213	36	3,060	19,972	2,437	5,053	14,491	33,164	14,954	48,188	1,202	2,372	21,907
Colorado.....	4	3	112	532	95	192	432	1,040	757	1,717	59	( <sup>2</sup> )	( <sup>2</sup> )
California.....	194	31	2,811	18,599	2,235	4,651	13,475	30,526	13,728	44,392	1,085	2,102	19,498
INDUSTRY 3452.—BOLTS, NUTS, RIVETS, AND WASHERS													
Total.....	573	323	57,618	371,026	43,972	92,502	257,477	695,276	527,860	1,218,247	31,431	53,270	504,731
New England.....	68	43	8,395	47,677	6,234	13,028	32,000	88,910	50,128	139,190	3,148	9,247	70,823
Massachusetts.....	21	13	4,373	24,954	3,238	6,755	17,012	41,967	24,362	66,461	1,016	4,641	34,974
Connecticut.....	32	20	2,923	17,059	2,116	4,465	10,880	36,639	18,089	54,977	1,666	3,486	27,522
Middle Atlantic....	122	58	12,094	77,603	9,000	18,390	53,585	143,341	97,840	240,366	5,063	11,511	110,957
New York.....	45	18	2,975	18,250	2,160	4,373	11,430	36,101	29,536	66,281	1,426	2,465	25,643
New Jersey.....	28	17	3,200	22,196	2,294	4,749	14,939	44,766	23,904	67,935	2,053	2,638	25,760
Pennsylvania.....	49	23	5,919	37,157	4,546	9,268	27,216	62,474	44,400	106,150	1,584	6,408	59,554
East North Central.	259	158	28,585	194,156	22,067	47,128	136,519	357,819	306,677	659,791	18,037	25,788	244,435
Ohio.....	73	51	9,638	63,367	7,477	15,530	44,542	110,478	104,678	213,578	4,826	9,226	86,121
Indiana.....	12	8	1,107	7,063	839	1,730	4,933	13,961	12,618	26,749	616	1,292	12,811
Illinois.....	96	59	12,596	86,228	9,677	21,388	61,058	160,670	117,052	275,916	7,843	11,175	105,204
Michigan.....	68	37	4,555	32,962	3,566	7,398	23,063	64,312	65,652	128,413	4,346	3,489	33,898
Wisconsin.....	10	3	689	4,536	508	1,082	2,923	8,398	6,677	15,135	406	606	6,401
West North Central.	12	6	548	3,188	409	838	2,045	5,870	5,812	11,621	333	613	4,374
Missouri.....	6	3	233	1,415	166	330	819	2,795	2,389	5,132	141	295	2,050
South Atlantic.....	11	7	1,510	7,444	1,270	3,037	5,356	21,273	14,128	34,821	1,323	1,107	10,626
East South Central.	12	6	1,147	6,532	963	1,887	4,852	10,977	12,177	22,993	912	801	8,853
West South Central.	16	6	566	2,470	493	762	1,833	4,115	4,495	9,549	189	327	3,291
West.....	73	39	4,773	31,956	3,536	7,432	21,287	62,971	36,603	99,916	2,426	3,876	51,372
California.....	68	37	4,669	31,351	3,464	7,295	20,917	62,063	35,687	98,029	2,411	3,778	50,341
INDUSTRY 3461.—METAL STAMPINGS													
Total.....	2,574	1,116	132,179	772,557	108,336	222,005	567,309	1,368,993	1,324,939	2,678,996	64,248	125,300	1,045,220
New England.....	257	104	10,493	58,172	8,253	16,859	40,068	99,268	72,215	170,157	4,077	9,741	67,846
Massachusetts.....	112	49	3,428	18,076	2,740	5,726	12,643	28,900	20,028	48,763	953	3,553	23,377
Rhode Island.....	35	11	715	3,531	582	1,148	2,425	8,190	5,458	13,654	229	614	4,865
Connecticut.....	103	42	6,244	36,084	4,838	9,787	24,639	61,344	46,200	106,398	2,882	5,526	39,259

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963										1958		
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3461.—METAL STAMPINGS—Continued													
Middle Atlantic....	629	247	32,767	195,165	26,557	53,802	143,749	344,131	301,066	643,000	14,163	32,577	265,720
New York.....	342	125	12,122	66,021	9,773	19,911	46,571	114,604	92,700	206,659	3,866	11,780	91,021
New Jersey.....	154	57	6,048	35,324	4,782	9,734	24,660	59,795	52,364	112,634	3,090	5,655	49,587
Pennsylvania.....	133	65	14,597	93,820	12,002	24,157	72,518	169,732	156,002	323,707	7,207	15,142	125,112
East North Central.	1,112	551	66,710	401,161	55,078	113,219	295,508	709,713	724,451	1,426,566	31,809	63,316	552,220
Ohio.....	253	137	17,452	106,843	14,426	29,779	81,342	179,500	186,092	361,493	7,456	17,124	130,646
Indiana.....	92	40	7,042	42,602	5,868	11,758	32,732	75,126	76,640	151,514	2,702	6,246	59,255
Illinois.....	337	151	16,769	101,397	13,781	28,206	73,665	177,495	155,582	333,968	6,266	17,115	151,709
Michigan.....	343	178	15,496	97,241	12,852	26,755	70,279	176,604	207,318	381,613	6,646	13,672	127,333
Wisconsin.....	87	45	9,951	53,078	8,151	16,721	37,490	100,988	98,819	197,978	8,739	9,159	83,277
West North Central.	109	55	5,115	28,628	4,153	8,411	20,756	48,145	40,834	88,277	3,679	4,354	34,477
Minnesota.....	48	29	2,223	12,727	1,766	3,641	8,919	20,467	13,861	34,186	804	1,450	11,020
Iowa.....	12	6	912	4,613	731	1,562	3,356	6,966	7,855	14,770	295	1,041	7,690
Missouri.....	40	16	1,704	9,592	1,425	2,739	7,144	18,277	17,343	35,132	2,523	1,562	13,542
South Atlantic.....	74	36	5,782	28,521	5,001	10,293	22,916	56,718	75,931	130,859	5,367	5,950	42,512
Maryland.....	15	7	1,342	8,184	1,083	2,187	6,344	13,863	20,491	33,683	(D)	2,058	15,832
West Virginia....	10	7	1,113	5,122	967	1,836	4,193	7,834	9,647	17,588	339	1,515	9,036
North Carolina....	13	5	267	1,376	214	464	942	2,170	1,174	3,315	129	(2)	(2)
Georgia.....	18	10	1,857	7,718	1,718	3,671	6,679	16,157	22,990	38,799	1,181	1,244	8,993
East South Central.	53	33	4,566	21,855	3,802	8,049	15,595	42,134	47,602	88,668	2,146	2,506	18,377
Kentucky.....	16	14	1,667	9,555	1,346	2,848	6,758	14,951	14,747	29,260	660	1,432	9,234
Alabama.....	9	4	441	1,804	335	543	1,007	4,312	5,072	9,156	166	513	5,050
West South Central.	49	12	1,049	5,002	866	2,084	3,697	10,272	11,500	21,577	504	1,002	7,780
Texas.....	36	9	655	3,275	534	1,416	2,402	7,094	7,967	15,058	364	535	3,809
Mountain.....	13	3	133	761	105	209	559	1,243	948	2,156	89	77	164
Pacific.....	278	75	5,564	33,292	4,521	9,079	24,461	57,369	50,392	107,736	2,414	5,777	56,124
Washington.....	12	1	175	1,114	144	262	718	1,595	2,379	3,928	93	189	2,095
California.....	253	74	5,330	31,875	4,329	8,724	23,512	55,160	47,612	102,785	2,282	5,537	53,691
INDUSTRY 3471.—PLATING AND POLISHING													
Total.....	3,023	677	44,962	223,504	37,722	74,846	169,592	370,202	148,320	517,572	20,032	36,471	253,784
New England.....	330	76	5,252	24,510	4,443	8,637	18,329	38,741	13,909	52,608	1,958	4,560	27,955
Massachusetts....	117	35	1,888	8,957	1,555	3,129	6,498	13,356	4,728	18,084	903	1,543	9,246
Rhode Island.....	91	15	1,323	4,752	1,169	1,991	3,674	7,371	2,721	10,087	326	(2)	(2)
Connecticut.....	113	26	1,966	10,377	1,661	3,396	7,890	17,506	6,245	23,716	713	1,743	12,376
Middle Atlantic....	704	132	8,951	42,848	7,473	15,004	32,618	72,439	29,512	101,833	3,393	8,780	58,963
New York.....	417	82	5,434	24,758	4,636	9,309	18,967	41,086	14,786	55,825	1,631	5,515	36,486
New Jersey.....	158	27	1,872	9,810	1,486	2,976	7,302	15,963	5,606	21,554	949	1,848	12,159
Pennsylvania.....	129	23	1,645	8,280	1,351	2,719	6,349	15,390	9,120	24,454	813	1,417	10,318
East North Central.	1,022	280	17,883	90,748	15,089	29,782	68,738	152,657	68,851	221,112	7,654	13,699	96,538
Ohio.....	247	63	4,070	20,871	3,401	6,730	15,838	34,401	18,451	52,713	2,047	3,170	22,598
Indiana.....	80	23	1,561	7,850	1,294	2,570	5,867	15,379	5,453	20,810	818	1,189	9,199
Illinois.....	287	82	5,371	27,680	4,561	8,950	20,902	46,390	20,328	66,614	2,263	4,799	33,837
Michigan.....	339	98	5,966	29,701	5,056	10,051	22,653	49,318	22,152	71,439	2,163	3,771	26,215
Wisconsin.....	69	14	915	4,646	777	1,481	3,478	7,169	2,467	9,536	363	770	4,689
West North Central.	118	25	2,010	10,245	1,662	3,168	7,424	17,478	5,937	23,348	1,039	1,319	9,901
Minnesota.....	30	6	674	3,861	556	1,028	2,609	6,438	2,376	8,801	508	482	3,978
Missouri.....	60	14	1,034	4,972	852	1,624	3,728	8,536	2,637	11,124	373	599	4,234
Kansas.....	11	3	145	729	126	256	549	1,171	615	1,786	88	(2)	(2)
South Atlantic.....	117	21	1,794	7,412	1,561	3,191	5,816	12,494	4,753	17,093	1,396	899	5,583
Maryland.....	18	-	106	511	86	179	385	764	360	1,122	29	129	1,028
Virginia.....	15	1	132	612	108	207	447	989	306	1,297	54	(2)	(2)
North Carolina....	16	3	230	862	196	404	651	1,515	909	2,424	191	(2)	(2)
Florida.....	39	7	412	1,686	336	694	1,294	3,097	782	3,770	142	220	1,346
East South Central.	59	14	648	2,647	555	1,041	2,141	4,563	1,602	6,176	219	307	1,835
Kentucky.....	16	4	164	843	131	225	648	1,315	414	1,729	53	(2)	(2)
Tennessee.....	24	9	346	1,198	307	587	985	2,195	753	2,957	106	132	738
West South Central.	105	21	1,228	5,749	1,028	2,121	4,546	9,509	3,566	13,019	903	812	5,841
Oklahoma.....	19	4	279	1,223	242	460	962	1,774	1,081	2,840	150	153	1,112
Texas.....	74	15	825	4,017	677	1,440	3,145	6,724	2,062	8,746	569	587	4,248

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3471.—PLATING AND POLISHING—Continued													
Mountain.....	45	10	514	2,745	423	814	2,128	4,117	1,398	5,467	418	264	1,668
Colorado.....	15	3	141	737	117	242	551	1,105	370	1,420	124	( <sup>2</sup> )	( <sup>2</sup> )
Arizona.....	15	5	250	1,370	202	361	1,047	1,937	745	2,687	238	764	930
Pacific.....	523	98	6,682	36,600	5,488	11,088	27,852	58,204	18,792	76,916	3,052	5,331	45,500
Washington.....	18	2	212	1,523	163	318	1,065	2,435	697	3,129	52	155	1,287
Oregon.....	16	3	166	856	135	259	624	1,063	279	1,352	64	220	1,332
California.....	484	93	6,279	34,089	5,170	10,477	26,069	54,573	17,621	72,110	2,931	5,456	42,881
INDUSTRY 3479.—METAL COATING, ENGRAVING, ETC.													
Total.....	1,258	276	20,669	107,110	17,113	34,998	79,136	184,546	137,211	322,139	8,656	15,680	108,379
New England.....	154	25	1,676	7,993	1,437	2,939	6,158	12,762	5,213	18,025	363	1,241	8,028
Massachusetts....	81	16	995	4,972	853	1,787	3,890	8,281	3,223	11,551	194	889	6,126
Rhode Island.....	42	3	261	893	224	414	677	1,417	418	1,834	40	( <sup>2</sup> )	( <sup>2</sup> )
Middle Atlantic....	325	65	5,206	25,962	4,242	8,737	18,366	43,357	23,746	67,624	1,728	4,297	27,692
New York.....	189	27	2,100	10,283	1,735	3,559	7,256	15,810	7,579	23,581	551	2,213	13,015
New Jersey.....	83	21	1,405	7,130	1,166	2,442	5,239	11,214	5,777	16,911	570	1,000	6,741
Pennsylvania.....	53	17	1,701	8,549	1,341	2,736	5,871	16,333	10,390	27,132	607	1,084	7,936
East North Central.	318	103	7,999	43,574	6,639	13,733	32,248	76,101	63,336	139,399	3,387	5,740	40,404
Illinois.....	122	41	3,139	18,238	2,497	4,889	12,704	31,307	30,505	61,798	805	2,970	23,429
Michigan.....	82	29	1,789	8,555	1,533	3,252	6,537	15,390	13,939	29,205	903	( <sup>2</sup> )	( <sup>2</sup> )
West North Central.	62	8	692	3,345	566	1,122	2,577	6,244	2,870	9,181	347	600	5,981
Minnesota.....	17	2	169	731	143	280	560	1,725	523	2,259	70	191	1,402
South Atlantic.....	46	13	1,034	5,259	829	1,645	3,593	8,471	11,404	19,800	867	426	3,597
Maryland.....	16	-	522	3,093	392	789	1,883	4,630	4,534	9,064	344	337	2,995
Florida.....	14	2	143	555	125	252	472	1,174	362	1,573	69	( <sup>2</sup> )	( <sup>2</sup> )
East South Central.	25	9	458	1,672	398	781	1,412	3,635	1,515	5,149	122	250	1,720
Kentucky.....	6	4	191	644	172	343	601	1,508	266	1,774	46	( <sup>2</sup> )	( <sup>2</sup> )
Tennessee.....	10	2	109	356	85	146	254	812	380	1,186	30	149	863
West South Central.	70	16	1,015	4,916	878	1,789	3,868	9,148	5,102	13,666	696	1,160	6,845
Oklahoma.....	8	2	111	533	101	196	398	926	426	1,352	50	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	53	11	711	3,514	610	1,252	2,799	6,031	2,989	8,435	269	1,030	5,665
Mountain.....	21	2	137	644	120	224	532	1,159	643	1,802	252	80	688
Colorado.....	11	2	104	518	90	166	416	914	556	1,472	242	( <sup>2</sup> )	( <sup>2</sup> )
Pacific.....	237	35	2,452	13,745	2,004	4,028	10,382	23,669	23,382	47,493	894	1,886	13,424
California.....	207	34	2,332	13,159	1,901	3,833	9,874	22,472	22,867	45,783	827	1,812	12,696

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 3451, Screw Machine Products: New England—Maine, 1 (1-19); New Hampshire, 4 (20-99); Vermont, 3 (20-99); Rhode Island, 43 (555); West North Central—Iowa, 7 (100-249); Nebraska, 3 (20-99); Kansas, 3 (20-99); South Atlantic—Maryland, 7 (100-249); West Virginia, 1 (20-99); North Carolina, 2 (1-19); South Carolina, 1 (1-19); Georgia, 4 (20-99); Florida, 14 (20-99); East South Central—Tennessee, 5 (100-249); Alabama, 2 (20-99); West South Central—Arkansas, 5 (20-99); Oklahoma, 2 (20-99); Texas, 12 (100-249); Mountain—Arizona, 5 (20-99); Pacific—Washington, 6 (20-99); Oregon, 4 (20-99).

SIC 3452, Bolts, Nuts, Rivets, and Washers: New England—New Hampshire, 3 (100-249); Vermont, 1 (1-19); Rhode Island, 11 (855); West North Central—Minnesota, 4 (250-499); Iowa, 1 (20-99); Kansas, 1 (1-19); South Atlantic—Delaware, 1 (1-19); Maryland, 2 (100-249); Virginia, 1 (100-249); North Carolina, 2 (100-249); Georgia, 1 (1-19); Florida, 4 (124); East South Central—Kentucky, 1 (100-249); Tennessee, 3 (1-19); Alabama, 6 (500-999); Mississippi, 2 (100-249); West South Central—Oklahoma, 5 (100-249); Texas, 11 (250-499); Mountain—Arizona, 1 (1-19); Pacific—Washington, 3 (20-99); Oregon, 1 (20-99).

SIC 3461, Metal Stampings: New England—Maine, 1 (20-99); New Hampshire, 4 (20-99); Vermont, 2 (1-19); West North Central—North Dakota, 2 (1-19); Nebraska, 5 (20-99); Kansas, 2 (100-249); South Atlantic—Delaware, 2 (250-499); Virginia, 1 (1-19); South Carolina, 4 (549); Florida, 11 (250-499); East South Central—Tennessee, 21 (1630); Mississippi, 7 (828); West South Central—Arkansas, 2 (20-99); Louisiana, 5 (316); Oklahoma, 6 (20-99); Mountain—Wyoming, 1 (20-99); Colorado, 7 (20-99); Arizona, 1 (1-19); Utah, 3 (20-99); Nevada, 1 (1-19); Pacific—Oregon, 13 (20-99).

SIC 3471, Plating and Polishing: New England—Maine, 1 (1-19); New Hampshire, 5 (20-99); Vermont, 3 (1-19); West North Central—Iowa, 16 (100-249); Nebraska, 1 (1-19); South Atlantic—Delaware, 2 (1-19); District of Columbia, 5 (20-99); West Virginia, 4 (20-99); South Carolina, 6 (100-249); Georgia, 12 (636); East South Central—Alabama, 16 (100-249); Mississippi, 3 (20-99); West South Central—Arkansas, 5 (100-249); Louisiana, 7 (20-99); Mountain—Montana, 1 (1-19); Idaho, 2 (1-19); New Mexico, 3 (1-19); Utah, 7 (20-99); Nevada, 2 (1-19); Pacific—Hawaii, 5 (20-99).

SIC 3479, Metal Coating, Engraving, Etc.: New England—Maine, 1 (1-19); New Hampshire, 1 (1-19); Connecticut, 29 (250-499); East North Central—Ohio, 76 (2124); Indiana, 12 (498); Wisconsin, 26 (449); West North Central—Iowa, 4 (20-99); Missouri, 33 (464); South Dakota, 1 (1-19); Nebraska, 3 (1-19); Kansas, 4 (1-19); South Atlantic—Delaware, 1 (20-99); Virginia, 5 (20-99); North Carolina, 4 (20-99); South Carolina, 2 (20-99); Georgia, 4 (177); East South Central—Alabama, 8 (100-249); Mississippi, 1 (1-19); West South Central—Arkansas, 1 (1-19); Louisiana, 8 (100-249); Mountain—Idaho, 1 (1-19); Wyoming, 1 (1-19); New Mexico, 1 (1-19); Arizona, 5 (1-19); Utah, 2 (1-19); Pacific—Washington, 15 (20-99); Oregon, 15 (20-99).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.



TABLE 3. Detailed Statistics: 1963

Item	Screw machine products (SIC 3451)	Bolts, nuts, rivets, and washers (SIC 3452)	Metal stampings (SIC 3461)	Plating and polishing (SIC 3471)	Metal coating, engraving, etc. (SIC 3479)
Primary product specialization ratio <sup>1</sup> .....	.97	.92	.84	( <sup>2</sup> )	( <sup>2</sup> )
Coverage ratio <sup>3</sup> .....	.90	.90	.86	( <sup>2</sup> )	( <sup>2</sup> )
Establishments, total.....number..	1,874	573	2,574	3,023	1,258
With 1 to 19 employees.....do....	1,358	250	1,458	2,346	982
With 20 to 99 employees.....do....	462	188	818	637	245
With 100 employees or more.....do....	54	135	298	40	31
Proprietors and working partners.....do....	979	131	848	1,816	707
All employees (average for the year).....do....	36,909	57,618	132,179	44,962	20,669
Payroll (all employees), total for year.....\$1,000..	213,172	371,026	772,557	223,504	107,110
Production workers:					
Average for the year.....number..	30,796	43,972	108,336	37,722	17,113
March.....do....	31,155	44,544	108,483	36,897	16,760
May.....do....	31,123	43,544	107,494	37,102	17,267
August.....do....	30,512	43,275	106,634	37,698	17,358
November.....do....	30,443	44,566	110,880	39,193	17,428
Man-hours.....1,000..	64,270	92,502	222,005	74,846	34,998
January-March.....do....	16,292	23,584	54,312	18,316	8,220
April-June.....do....	16,369	23,481	55,702	18,683	8,882
July-September.....do....	15,520	21,941	53,768	18,805	8,927
October-December.....do....	16,089	23,496	58,223	19,042	8,969
Wages.....\$1,000..	159,991	257,477	567,309	169,592	79,136
Cost of materials, etc., total.....do....	232,878	527,860	1,324,939	148,320	137,211
Materials, parts, containers, and supplies consumed.....do....	183,688	433,638	1,171,137	114,865	122,854
Cost of resales.....do....	5,520	44,854	51,023	2,798	2,547
Fuels consumed.....do....	1,507	5,458	11,704	7,727	4,283
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	198	590	1,214	721	180
Cost.....\$1,000..	4,261	8,405	17,957	12,738	3,070
Generated less sold.....million kw.-hrs..	(D)	(D)	24	7	1
Contract work.....\$1,000..	37,902	35,505	73,118	10,192	4,457
Value of shipments (including resales), total.....do....	588,981	1,218,247	2,678,996	517,572	322,139
Value of resales.....do....	6,864	54,232	66,129	3,782	7,189
Value added by manufacture, adjusted.....do....	358,961	695,276	1,368,993	370,202	184,546
Manufacturers' inventories:					
Beginning of year, total.....do....	54,106	214,688	336,751	20,461	24,834
Finished products.....do....	12,158	105,497	95,765	2,878	6,749
Work-in-process.....do....	20,984	35,031	88,313	1,624	4,017
Materials, supplies, fuel, etc.....do....	20,964	74,160	152,673	15,959	14,068
End of year, total.....do....	58,835	222,167	360,833	22,104	27,450
Finished products.....do....	14,431	107,883	102,149	3,625	6,469
Work-in-process.....do....	21,569	37,534	96,865	1,827	3,915
Materials, supplies, fuel, etc.....do....	22,835	76,750	161,819	16,652	17,066
Expenditures for plant and equipment, total.....do....	24,209	35,914	73,166	22,786	9,331
New, total.....do....	18,676	31,431	64,248	20,032	8,656
New structures and additions to plant.....do....	3,891	5,360	16,054	4,814	2,119
New machinery and equipment.....do....	14,785	26,071	48,194	15,218	6,537
Used plant and equipment.....do....	5,533	4,483	8,918	2,754	675
Selected operating ratios:					
Payroll/Total employment.....	5,776	6,439	5,845	4,971	5,182
Production workers/Total employment.....	.83	.76	.82	.84	.83
Man-hours/Production workers.....	2,087	2,104	2,049	1,984	2,045
Production worker wages/Man-hours.....	2.49	2.78	2.59	2.27	2.26
Cost of materials and payrolls/Total value of shipments.....	.76	.74	.78	.72	.76
Cost of materials/Total value of shipments.....	.40	.43	.49	.29	.43
Adjusted value added/Total employment.....	9,726	12,067	10,357	8,234	8,929
Salaries and wages/Adjusted value added.....	.59	.53	.56	.60	.58

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>Relationship not meaningful because of the predominance of miscellaneous receipts, particularly receipts for contract and commission work on materials owned by others.

<sup>3</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3451.—SCREW MACHINE PRODUCTS											
Establishments.....number..	1,874	608	328	422	346	116	46	8	-	-	-
All employees:											
Total.....do.....	36,909	1,057	2,229	5,830	10,502	7,963	6,753	2,575	-	-	-
Payroll.....\$1,000..	213,172	5,452	11,366	31,971	60,033	48,913	40,371	15,066	-	-	-
Value added, adjusted.....do....	358,961	13,287	20,293	56,402	105,075	78,041	61,632	24,231	-	-	-
Value of shipments.....do....	588,981	21,695	33,577	91,103	173,081	134,136	95,571	39,818	-	-	-
Capital expenditures, new...do....	18,676	782	1,171	2,533	5,395	3,609	2,991	2,195	-	-	-
INDUSTRY 3452.—BOLTS, NUTS, RIVETS, AND WASHERS											
Establishments.....number..	573	90	63	97	123	65	80	25	23	6	1
All employees:											
Total.....do.....	57,618	182	412	1,371	3,877	4,420	12,377	9,167	15,615	10,197	(D)
Payroll.....\$1,000..	371,026	1,276	2,407	7,636	23,834	27,946	76,303	61,025	101,650	68,949	(D)
Value added, adjusted.....do....	695,276	3,774	6,052	14,410	49,518	58,900	146,223	119,659	186,071	110,669	(D)
Value of shipments.....do....	1,218,247	6,352	11,697	30,004	96,059	116,533	278,275	197,610	304,646	177,071	(D)
Capital expenditures, new...do....	31,431	261	775	966	3,364	2,530	9,367	4,570	5,815	3,783	(D)
INDUSTRY 3461.—METAL STAMPINGS											
Establishments.....number..	2,574	577	407	474	553	265	202	65	19	11	1
All employees:											
Total.....do.....	132,179	1,118	2,732	6,676	17,243	18,374	31,563	22,433	12,409	19,631	(D)
Payroll.....\$1,000..	772,557	6,996	13,736	35,330	97,725	105,312	177,532	130,595	76,263	129,068	(D)
Value added, adjusted.....do....	1,368,993	14,086	28,542	63,442	166,820	184,470	309,134	233,602	118,725	250,172	(D)
Value of shipments.....do....	2,678,996	25,994	45,995	118,363	303,546	352,695	613,575	490,631	255,180	473,017	(D)
Capital expenditures, new...do....	64,248	2,804	1,217	2,494	7,669	8,355	11,912	11,951	8,310	9,536	(D)
INDUSTRY 3471.—PLATING AND POLISHING											
Establishments.....number..	3,023	1,148	597	601	504	133	36	4	-	-	-
All employees:											
Total.....do.....	44,962	2,036	4,027	8,433	15,376	9,024	4,973	1,093	-	-	-
Payroll.....\$1,000..	223,504	10,082	19,280	41,751	76,785	45,694	23,948	5,964	-	-	-
Value added, adjusted.....do....	370,202	18,568	33,273	68,652	124,261	76,877	40,053	8,518	-	-	-
Value of shipments.....do....	517,572	24,433	44,110	91,892	171,920	112,238	59,729	13,250	-	-	-
Capital expenditures, new...do....	20,032	1,082	1,598	3,184	7,649	4,190	1,768	561	-	-	-
INDUSTRY 3479.—METAL COATING, ENGRAVING, ETC.											
Establishments.....number..	1,258	548	230	204	178	67	25	5	1	-	-
All employees:											
Total.....do.....	20,669	916	1,510	2,729	5,321	4,606	3,498	2,089	(D)	-	-
Payroll.....\$1,000..	107,110	4,089	6,971	13,168	27,058	24,035	19,717	12,072	(D)	-	-
Value added, adjusted.....do....	184,546	9,380	12,311	23,403	45,457	42,678	31,385	19,932	(D)	-	-
Value of shipments.....do....	322,139	12,993	16,891	31,919	67,339	76,050	71,430	45,517	(D)	-	-
Capital expenditures, new...do....	8,656	444	541	942	1,991	2,189	1,537	1,012	(D)	-	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

<sup>1</sup>Includes capital expenditures of approximately \$1-\$2 million for plants under construction but not in operation.



TABLE 5A. **Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B+C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3451	Screw machine products.....1963..	588,981	538,685	18,755	31,541	97	599,424	538,685	60,739	90
	1958..	425,113	373,345	22,953	28,815	94	428,805	373,345	55,460	87
3452	Bolts, nuts, rivets, and washers...1963..	1,218,247	1,058,382	92,019	67,846	92	1,175,719	1,058,382	117,337	90
	1958..	880,328	754,705	72,061	53,562	91	859,446	754,705	104,741	87
3461	Metal stampings.....1963..	2,678,996	2,134,816	410,369	133,811	84	2,483,666	2,134,816	348,850	86
	1958..	2,095,409	1,688,259	281,378	125,772	86	1,948,110	1,694,528	253,582	87
3471	Plating and polishing.....1963..	517,572	<sup>1</sup> 501,949	10,269	5,354	( <sup>1</sup> )	( <sup>2</sup> )	501,949	( <sup>2</sup> )	( <sup>2</sup> )
	1958..	359,116	<sup>1</sup> 349,686	4,419	5,011	( <sup>1</sup> )	( <sup>2</sup> )	349,686	( <sup>2</sup> )	( <sup>2</sup> )
3479	Metal coating, engraving, etc.....1963..	322,139	<sup>1</sup> 286,484	22,600	13,055	( <sup>1</sup> )	( <sup>3</sup> )	286,484	( <sup>3</sup> )	( <sup>3</sup> )
	1958..	196,389	<sup>1</sup> 184,050	8,930	3,409	( <sup>1</sup> )	( <sup>3</sup> )	184,050	( <sup>3</sup> )	( <sup>3</sup> )

NOTE: See Introduction for an explanation of terms used.

<sup>1</sup>Specialization ratio is not meaningful because of the predominance of receipts for contract and commission work on materials owned by others. Such receipts are treated as primary products for this industry.

<sup>2</sup>Data on receipts for plating and polishing are not available for establishments classified outside industry 3471.

<sup>3</sup>Data on receipts for metal coating and engraving, etc. are not available for establishments classified outside industry 3479.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Screw machine products (SIC 3451)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Bolts, nuts, rivets, and washers (SIC 3452)	Other industries
	SCREW MACHINE PRODUCTS INDUSTRY					BOLTS, NUTS, RIVETS, AND WASHERS INDUSTRY—Continued			
	Total shipments and receipts of the industry.....	(X)	588,981	(X)		Secondary products—Continued			
34510	Screw machine products.....	599,424	538,685	60,739	34295	Other secondary products—Con.			
	Secondary products.....	(X)	18,755	(X)	34990	Other hardware.....	(X)	(2-5)	(X)
34521	Bolts, nuts and other standard industrial fasteners.....	(X)	4,356	(X)	35423	Fabricated metal products, n.e.c.	(X)	(2-5)	(X)
34523	Headed products (produced by cold and hot heading) other than industrial fasteners.....	(X)	2,839	(X)	37175	Other metal forming machine tools, including forging machines.....	(X)	(2-5)	(X)
	Other secondary products.....	(X)	11,560	(X)	39642	Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers.....	(X)	(over 2)	(X)
	Miscellaneous receipts.....	(X)	31,541	(X)		Needles, pins, fasteners, (except slide) and similar notions.....	(X)	(over 2)	(X)
	Contract work.....	(X)	12,774	(X)		Miscellaneous receipts.....	(X)	67,846	(X)
	Scrap and salable refuse.....	(X)	10,860	(X)		Contract and commission work.....	(X)	2,927	(X)
	Sales of products bought and resold.....	(X)	6,864	(X)		Scrap and salable refuse.....	(X)	6,993	(X)
	Other miscellaneous receipts.....	(X)	1,043	(X)		Sales of products brought and resold.....	(X)	54,232	(X)
34510	Listing of other industries with over \$2 million shipments of screw machine products:					Other miscellaneous receipts.....	(X)	3,694	(X)
	3432 Plumbing fittings, brass goods.....	(X)	(X)	(2-5)		Listing of other industries with over \$2 million shipments of each primary product class:			
	3452 Bolts, nuts, rivets, and washers.....	(X)	(X)	21,253	34521	3312 Blast furnaces and steel mills.....	(X)	(X)	(over 2)
	3461 Metal stampings.....	(X)	(X)	5,248	34521	3315 Steel wire drawing, etc.....	(X)	(X)	3,032
	3519 Internal combustion engines	(X)	(X)	(5-10)	34521	3432 Plumbing fixtures, brass goods.....	(X)	(X)	(over 2)
	3717 Motor vehicles and parts...	(X)	(X)	5,624	34521	3451 Screw machine products.....	(X)	(X)	4,356
		All industries	Bolts, nuts, rivets, and washers (SIC 3452)	Other industries	34521	3461 Metal stampings.....	(X)	(X)	2,958
					34521	3717 Motor vehicles and parts.....	(X)	(X)	(over 2)
					34522	3553 Woodworking machinery.....	(X)	(X)	(over 2)
					34522	3643 Current carrying devices....	(X)	(X)	4,484
					34523	3451 Screw machine products.....	(X)	(X)	2,839
	BOLTS, NUTS, RIVETS, AND WASHERS INDUSTRY						All industries	Metal stampings (SIC 3461)	Other industries
	Total shipments and receipts of the industry.....	(X)	1,218,247	(X)					
	Primary products.....	1,175,719	1,058,382	117,337		METAL STAMPING INDUSTRY			
34521	Bolts, nuts and other standard industrial fasteners.....	843,037	747,597	95,440		Total shipments and receipts of the industry.....	(X)	2,678,996	(X)
34522	Special industrial fasteners (nonstandard).....	241,539	228,567	12,972		Primary products.....	2,483,666	2,134,816	348,850
34523	Headed products (produced by hot and cold heading), other than industrial fasteners.....	76,676	68,339	8,337	34611	Vitreous enameled products.....	70,144	58,720	11,424
34520	Bolts, nuts, screws, rivets, and washers, n.s.k.....	14,467	13,879	588	34612	Job stampings, except automotive..	756,745	641,462	115,283
	Secondary products.....	(X)	92,019	(X)	34613	Job stamping automotive.....	848,076	718,316	129,760
34510	Screw machine products.....	(X)	21,253	(X)	34614	Stamped and spun hospital utensils and cooking and kitchen household utensils, aluminum.....	95,667	94,740	927
34612	Job stampings, except automotive.	(X)	2,745	(X)	34615	Stamped and spun hospital utensils and cooking and kitchen household utensils, etc., aluminum.....	134,321	124,514	9,807
35424	Parts for metal forming machine tools and rebuilt metal forming machinery.....	(X)	2,073	(X)	34616	Metal commercial closures, except crowns.....	147,943	140,355	7,588
35482	Power driven hand tools, including parts and attachments.	(X)	5,966	(X)	34617	Crowns.....	81,977	(D)	(D)
	Other secondary products.....	(X)	59,982	(X)	34618	Other stamped and pressed metal end products.....	250,679	186,531	64,148
30698	Other rubber goods, n.e.c.....	(X)	(2-5)	(X)	34610	Metal stampings, n.s.k.....	98,114	(D)	(D)
33168	Cold finished steel bars and bar shapes (not made in steel mills).....	(X)	(over 2)	(X)		Secondary products.....	(X)	410,369	(X)
					25420	Metal partitions, shelving lockers, and office and store fixtures....	(X)	2,997	(X)

See footnotes at end of table.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Metal stamp-ings (SIC 3461)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Metal stamp-ings (SIC 3461)	Other industries
	METAL STAMPING INDUSTRY—Continued					METAL STAMPING INDUSTRY—Continued			
	Secondary products—Continued					Miscellaneous receipts.....	(X)	133,811	(X)
30794	Packaging and shipping contain-ers, plastics.....	(X)	16,474	(X)		Receipts for contract work.....	(X)	28,226	(X)
30798	Consumer and commercial plas-tics products, n.e.c.....	(X)	2,165	(X)		Scraps and salable refuse.....	(X)	26,676	(X)
34291	Transportation equipment hardware.....	(X)	4,671	(X)		Resales.....	(X)	66,129	(X)
34294	Builders' hardware.....	(X)	3,072	(X)		All other miscellaneous receipts..	(X)	12,780	(X)
34295	Other hardware.....	(X)	5,380	(X)		Listing of other industries with over \$2 million shipments of each primary product class:			
34310	Metal plumbing fixtures.....	(X)	11,078	(X)	34611	3522 Farm machinery and equipment.....	(X)	(X)	(over 2)
34320	Plumbing fixtures, fittings and trim (brass goods).....	(X)	4,654	(X)	34612	1929 Ammunition, n.e.c.....	(X)	(X)	(over 2)
34336	Other heating equipment (except electric) and parts for non-electric heating equipment....	(X)	3,270	(X)	34612	3069 Rubber products, n.e.c.....	(X)	(X)	(5-10)
34421	Metal doors and frames (except storm doors).....	(X)	3,643	(X)	34612	3312 Blast furnaces and steel mills.....	(X)	(X)	(10-20)
34432	Fabricated steel plate, includ-ing stacks and weldments.....	(X)	2,009	(X)	34612	3352 Aluminum rolling and drawing	(X)	(X)	(over 2)
34441	Sheet, metal roofing and siding, and roof drainage equipment....	(X)	3,369	(X)	34612	3429 Hardware, n.e.c.....	(X)	(X)	7,921
34443	Other sheet metal work.....	(X)	10,995	(X)	34612	3444 Sheetmetal work.....	(X)	(X)	3,087
34510	Screw machine products.....	(X)	5,248	(X)	34612	3452 Bolts, nuts, rivets and washers.....	(X)	(X)	2,745
34521	Bolts, nuts, and other standard industrial fasteners.....	(X)	2,958	(X)	34612	3481 Fabricated wire products, n.e.c.....	(X)	(X)	5,762
34819	Other fabricated wire products, not produced by wire drawers...	(X)	2,865	(X)	34612	3499 Fabricated metal products, n.e.c.....	(X)	(X)	2,226
34911	Steel shipping pails ( 1 to 12 gallon capacity).....	(X)	7,295	(X)	34612	3522 Farm machinery and equipment	(X)	(X)	(5-10)
34990	Fabricated metal products, n.e.c.	(X)	11,968	(X)	34612	3544 Special dies and tools.....	(X)	(X)	11,074
35441	Special dies and tools, die sets, jigs and fixtures.....	(X)	65,923	(X)	34612	3569 General industry machines, n.e.c.....	(X)	(X)	(2-5)
35990	Carburetors, pistons, and other machine shop products.....	(X)	2,099	(X)	34612	3679 Electronic components, n.e.c.....	(X)	(X)	(2-5)
36343	Other small household electric appliances.....	(X)	31,133	(X)	34612	3717 Motor vehicles and parts....	(X)	(X)	3,575
37175	Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufactures.....	(X)	12,287	(X)	34612	3993 Signs and advertising displays.....	(X)	(X)	(2-5)
	Other secondary products.....	(X)	194,816	(X)	34613	3312 Blast furnaces and steel mills.....	(X)	(X)	(over 2)
19291	Ammunition over 30mm (or 1.18 inches and over), n.e.c.....	(X)	(over 2)	(X)	34613	3351 Copper rolling and drawing..	(X)	(X)	(over 2)
19990	Ordnance and accessories, n.e.c.....	(X)	(2-5)	(X)	34613	3352 Aluminum rolling and drawing	(X)	(X)	(over 2)
24994	Cork products.....	(X)	(5-10)	(X)	34613	3522 Farm machinery and equipment	(X)	(X)	(5-10)
25144	Other metal household furniture.....	(X)	(5-10)	(X)	34613	3544 Special dies and tools.....	(X)	(X)	3,261
26552	Fiber cans, tubes and other fiber products.....	(X)	(over 2)	(X)	34613	3717 Motor vehicles and parts....	(X)	(X)	82,540
30797	Plastics dinnerware, table-ware, and kitchenware.....	(X)	(10-20)	(X)	34613	3722 Aircraft engines and parts..	(X)	(X)	(2-5)
33176	Steel pipe and tube (not made in steel mills).....	(X)	(2-5)	(X)	34615	1929 Ammunition, n.e.c.....	(X)	(X)	(over 2)
33920	Nonferrous forgings.....	(X)	(5-10)	(X)	34615	3411 Metal cans.....	(X)	(X)	(over 2)
34110	Metal cans.....	(X)	(10-20)	(X)	34616	2655 Fiber cans, tubes, drums, etc.....	(X)	(X)	(over 2)
34231	Mechanics' hand service tools.	(X)	(2-5)	(X)	34617	3411 Metal cans.....	(X)	(X)	(over 2)
34232	Edge tools.....	(X)	(2-5)	(X)	34618	2542 Metal partitions and fixtures.....	(X)	(X)	(2-5)
34413	Other fabricated structural iron and steel.....	(X)	(2-5)	(X)	34618	3312 Blast furnaces and steel mills.....	(X)	(X)	(10-20)
34912	Steel shipping barrels and drums (over 12 gallon capacity), except beer barrels.....	(X)	(2-5)	(X)	34618	3443 Boiler shop products.....	(X)	(X)	(2-5)
34913	All other metal barrels, including beer barrels and fluid milk shipping containers.....	(X)	(2-5)	(X)	34618	3444 Sheet metal work.....	(X)	(X)	2,737
37130	Truck and bus bodies, for sale separately (including those made on purchased chassis)...	(X)	(2-5)	(X)	34618	3481 Fabricated wire products, n.e.c.....	(X)	(X)	(2-5)
37224	Aircraft engine parts and accessories.....	(X)	(5-10)	(X)	34618	3634 Electric housewares and fans	(X)	(X)	6,371
39410	Games and toys, except dolls and childrens' vehicles.....	(X)	(2-5)	(X)	34618	3717 Motor vehicles and parts....	(X)	(X)	(over 2)
39642	Needles, pins, fasteners (except slide) and similar notions.....	(X)	(10-20)	(X)	34618	3821 Mechanical measuring devices	(X)	(X)	(2-5)
					34618	3822 Automatic temperature controls.....	(X)	(X)	(over 2)
					3964	Needles, pins and fasteners.	(X)	(X)	(over 2)
							All industries	Plating and polishing (SIC 3471)	Other industries
						PLATING AND POLISHING INDUSTRY			
						Total shipments and receipts of the industry.....	(X)	517,572	(X)
					34710	Electroplating, plating and polishing.....	(1)	501,949	(1)
						Secondary products.....	(X)	10,269	(X)
						Miscellaneous receipts.....	(X)	25,354	(X)
						Resales.....	(X)	3,782	(X)
						Other.....	(X)	1,572	(X)

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Metal coating, engrav- ing, etc. (SIC 3479)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Metal coating, engrav- ing, etc. (SIC 3479)	Other industries
	METAL COATING, ENGRAVING, ETC., INDUSTRY					METAL COATING, ENGRAVING, ETC., INDUSTRY—Continued			
	Total shipments and receipts of the industry.....	(X)	322,139	(X)		Miscellaneous receipts.....	(X)	<sup>2</sup> 13,055	(X)
34790	Metal coating and engraving, n.e.c.....	( <sup>3</sup> )	286,484	( <sup>3</sup> )		Resales.....	(X)	7,189	(X)
	Secondary products.....	(X)	22,600	(X)		Scrap and salable refuse.....	(X)	1,227	(X)
						Other.....	(X)	4,639	(X)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Data on receipts for electroplating, plating and polishing not available for establishments classified outside the Plating and Polishing Industry.

<sup>2</sup>Does not include receipts for contract work on materials owned by others. These receipts are included in the primary products of the industry.

<sup>3</sup>Data on receipts for coating and engraving on metal are not available for establishments classified outside the Metal Coating, Engraving, etc., Industry.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product			Value of shipments including interplant transfers (\$1,000)		
				1963	1958	
3451- --	SCREW MACHINE PRODUCTS, TOTAL.....			599,424	428,805	
34510 12	Automotive.....			116,477	77,298	
34510 22	Aircraft and ordnance.....			79,716	54,497	
34510 42	Household appliances, including radio and television.....			43,947	37,880	
34510 62	Machinery.....			55,442	36,537	
34510 98	All other screw machine products.....			218,316	138,652	
34510 00	Screw machine products, n.s.k.....			85,526	83,941	
	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3452- --	BOLTS, NUTS, RIVETS, AND WASHERS, TOTAL.....		(X)	1,175,719	(X)	859,446
34521 --	Standard industrial fasteners (bolts, nuts, screws, etc.).....		(X)	843,037	(X)	669,560
	Bolts, threaded rods, lag screws, and studs, including nuts when nuts and bolts are sold as a unit:					
34521 01	Standard hex, square, and 12-point bolts and screws.....	1,000 lbs....	259,790	59,636	741,791	193,090
34521 03	Standard round head bolts (carriage, elevator, step, plow and track).....	...do.....	281,364	60,948		
34521 05	Lag screws and bolts.....	...do.....	68,022	16,226		
34521 07	Studs, threaded rods, and threaded wires.....	...do.....	122,734	46,876		
34521 09	Aircraft bolts.....	...do.....	5,819	20,628		
34521 13	Nuts:					
	Standard nuts (hexagon, or square, regular, heavy, or jam, finished, semifinished or unfinished, including slotted or castle) (exclude sheet metal nuts).....	...do.....	221,056	69,960	127,252	49,127
	Locknuts (exclude sheet metal nuts):					
34521 15	Aircraft.....	...do.....	14,938	32,813	(NA)	19,875
34521 17	Commercial (except aircraft).....	...do.....	27,927	17,005	26,482	16,486
34521 18	Sheet metal nuts, including push-on, "J" and "U" type slip-on cage, anchor, and locknuts, nut retainers, etc.....	...do.....	25,342	18,242	48,058	26,923
34521 19	Other nuts, including machine screw and stove bolt nuts, wing nuts, etc.....	...do.....	53,631	33,495		
	Screws:					
34521 23	Cap and set screws, hexagon head, 1/4" diameter and larger....	1,000 pieces..	3,638,634	73,654	1,980,573	48,422
34521 25	Other cap and set screws.....	...do.....	854,630	35,471	820,608	36,226
34521 33	Machine screws, including stove bolts.....	...do.....	13,734,162	65,512	13,410,495	59,465
34521 36	Tapping screws (thread forming and thread cutting screws, including sheet metal and hardened metallic drive screws)....	...do.....	13,594,107	55,433	9,706,451	34,722
34521 38	Wood screws (except wood drive screws).....	1,000 gross..	40,890	18,861	59,632	26,773
34521 39	Other screws.....	...do.....	(X)	24,466		
	Washers:					
34521 45	Spring, spiral and other lock.....	1,000 pieces..	11,079,368	24,909	7,801,492	17,147
34521 49	Flat and other.....	1,000 lbs....	(NA)	30,404	94,706	18,732
	Rivets:					
34521 51	Aircraft rivets.....		(NA)	13,403	(X)	19,457
34521 53	7/16" and under (other than aircraft).....	1,000 lbs....	125,227	41,930	103,851	27,131
34521 57	1/2" and over (other than aircraft).....	...do.....	73,820	11,975	84,968	12,919
34521 81	Pins (aircraft, straight, dowel, clevis, cotter and miscellaneous patent).....		(X)	19,436	(X)	9,185
34521 98	Other standard fasteners, including toggle bolts, etc.....		(X)	32,561	(X)	24,386
34521 00	Bolts, nuts, screws, rivets, etc., n.s.k.....		(X)	19,193	(X)	29,494
34522 15	Special industrial fasteners (nonstandard).....		(X)	241,539	(X)	179,392
34523 --	Headed products (produced by cold and hot heading) other than industrial fasteners.....		(X)	76,676	(X)	
	Other headed products:					
34523 12	Automotive.....		(X)	43,043	(X)	
34523 22	Aircraft and ordnance.....		(X)	6,474	(X)	
34523 42	Household appliances, including radio and television.....		(X)	9,772	(X)	
34523 62	Machinery.....		(X)	1,267	(X)	
34523 98	All other end uses.....		(X)	16,120	(X)	
34520 00	Bolts, nuts, rivets, and washers, n.s.k.....		(X)	14,467	(X)	10,494

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3461- --	METAL STAMPINGS, TOTAL.....		(X)	2,483,666	(X)	1,948,110
34611 --	Vitreous-enameled products.....		(X)	170,144	(X)	172,453
34611 11	Cooking and kitchen utensils, including household, commercial, and hospital.....		(X)	23,582	(X)	21,707
34611 41	Architectural vitreous (porcelain) parts (exterior and interior), including store front and curtain wall components.....		(X)	23,042	(X)	16,954
34611 75	Laundry equipment parts (sold separately).....		(X)	7,692	(X)	28,754
34611 98	Other vitreous (porcelain) enameled products, including refrigerator parts.....		(X)	15,828	(X)	22,754
34611 00	Vitreous enameled products, n.s.k.....		(X)	-	(X)	2,284
34612 --	Job stampings, except automotive <sup>3</sup> .....		(X)	756,745	(X)	576,178
34612 11	Aviation stamps.....		(X)	19,804	(X)	29,945
34612 15	Agricultural equipment stampings, including tractor.....		(X)	22,045	(X)	28,568
34612 25	Electrical appliance stampings (except refrigeration and laundry equipment).....		(X)	56,853	(X)	450,496
34612 31	Furniture stampings.....		(X)	16,388	(X)	14,397
34612 41	Office machine stampings.....		(X)	25,486	(X)	14,445
34612 51	Radio and television stampings.....		(X)	91,394	(X)	73,914
34612 61	Refrigerator stampings.....		(X)	52,078	(X)	43,392
34612 71	Stove, heater, and air-conditioner stampings.....		(X)	29,094	(X)	21,462
34612 84	Laundry equipment stampings.....		(X)	16,670	(X)	23,150
34612 98	Other job stampings.....		(X)	388,426	(X)	231,336
34612 00	Job stampings, except automotive, n.s.k.....		(X)	38,507	(X)	45,073
34613 13	Automotive job stampings (truck, bus, and passenger car) <sup>3</sup> .....		(X)	848,076	(X)	551,179
34614 --	Stamped and spun hospital utensils, and cooking and kitchen household utensils, aluminum.....		(X)	95,667	(X)	110,710
34614 02	Cooking and kitchen utensils:					
34614 03	Household pressure cookers.....		(X)	88,153	(X)	96,875
34614 05	Other household utensils.....		(X)	7,514	(X)	13,835
34615 --	Stamped and spun commercial and hospital utensils and cooking and kitchen household utensils, except aluminum.....		(X)	134,321	(X)	113,481
34615 11	Stainless steel:					
34615 12	Household.....		(X)	54,648		
	Commercial and hospital.....		(X)	17,912		
34615 16	Tinware.....		(X)	26,689	(X)	113,481
34615 98	Other metal.....		(X)	27,934		
34615 00	Stamped and spun hospital utensils and cooking and kitchen and utensils, n.s.k.....		(X)	7,138		
34616 --	Metal commercial closures, except crowns.....		(X)	147,943	(X)	131,133
34616 11	Screw thread and lug types (nonvacuum) (for glass containers): <sup>5</sup>					
34616 31	Aluminum.....	1,000 units...	1,940,600	12,227	2,140,799	13,808
	Tin mill.....	..do.....	7,126,673	48,963	7,407,765	49,986
34616 40	Other metal commercial closures, including vacuum types, aluminum and tin mill (for glass containers).....	..do.....	6,853,541	65,228	5,042,630	45,880
34616 47	Metal commercial closures for metal and plastic containers.....	..do.....	1,070,480	8,141	(NA)	11,284
34616 51	Milk bottle closures (aluminum and tin mill only).....	..do.....	(NA)	13,384	(NA)	10,175
34616 00	Metal commercial closures (except crowns), n.s.k.....					
34617 11	Metal crowns for glass and metal containers <sup>5</sup> .....	1,000 gross...	319,309	81,977	310,302	80,751
34618 --	Other stamped and pressed metal end products.....		(X)	250,679	(X)	223,271
	Metal home canning closures: <sup>5</sup>					
	Tin mill products:					
34618 31	Metal lids.....	1,000 gross...	7,657	9,733	10,063	12,114
34618 11	Metal screw bands.....	..do.....			2,975	5,655
34618 49	Other home canning closures.....	..do.....	2,439	3,874	(NA)	( <sup>6</sup> )
34618 59	Perforated metal end products.....		(X)	17,050	(X)	14,814
	Pails, ash cans, garbage cans, tubs, etc., excluding shipping containers:					
34618 61	Galvanized steel.....		(X)	39,700	(X)	32,219
34618 69	Other metal, including other grades of steel.....		(X)	10,669	(X)	7,911
34618 98	Other stamped and pressed metal end products.....		(X)	161,657	(X)	6147,713
34618 00	Other stamped and pressed metal end products, n.s.k.....		(X)	7,996	(X)	2,845
34610 00	Metal stampings, n.s.k.....		(X)	98,114	(X)	88,954

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
34710-11	ELECTROPLATING, PLATING AND POLISHING <sup>7</sup> .....	.....	(X)	501,949	(X)	349,686
34790 --	METAL COATING AND ENGRAVING, N.E.C.....	.....	(X)	286,484	(X)	184,050
34790 11	Engraving on metal <sup>7</sup> .....	.....	(X)	37,456	(X)	184,050
34790 31	Galvanizing and other hot dip coating <sup>7</sup> .....	.....	(X)	52,569		
34790 51	Enameling, japanning, and lacquering <sup>7</sup> .....	.....	(X)	140,101		
34790 00	Metal coating and engraving, n.s.k. <sup>7</sup> .....	.....	(X)	56,358		

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Data are limited to vitreous-enameled products produced from materials owned by the producing company. Data do not include the value of receipts for enameling work done on materials owned by others (enameling of products for the trade).

<sup>2</sup>Data are limited to washing machine parts (sold separately).

<sup>3</sup>"Job stampings" are mainly parts which are sold to other manufacturers for incorporation into their own products. Job stampings may be made from materials owned by the establishment or from materials owned by the customer. These figures represent only those stampings made from materials owned by the establishment performing the stamping operation.

<sup>4</sup>Data represent electrical appliance stampings (except refrigeration and washing machines).

<sup>5</sup>Figures for 1963 and 1958 as reported on Monthly Survey M34H, "Closures for Containers", are as follows:

Product	Unit of measure	Quantity of shipments including interplant transfers	
		1963	1958
Metal commercial closures for glass containers:			
Aluminum screw thread and lug type.....	1,000 units...	1,913,304	1,973,869
Tin mill screw thread and lug type.....	...do.....	7,280,227	7,776,361
Vacuum types, aluminum and tin.....	...do.....	6,553,092	4,301,953
Other types, aluminum and tin mill.....	...do.....		600,916
Metal closures for metal and plastic containers.....	...do.....	1,103,215	(NA)
Crowns.....	1,000 gross...	315,771	306,765
Home canning closures for glass containers, total.....	...do.....	9,991	14,382
Tin mill products:			
Metal lids.....	...do.....	7,648	10,435
Metal screw bands.....	...do.....		3,005
Other home canning closures, including zinc screw caps and bands (one-piece), glass lids, shoulder seal jar rings, top seal jar rings and other type home canning closures.....	...do.....	2,343	942

(NA) Not available.

<sup>6</sup>For 1958 product code 3461849 is combined with product code 3461898.

<sup>7</sup>Value consists principally of receipts for work done on materials owned by others. The value represents only work done by establishments classified in the industry to which the product (service) is primary.

**TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
345--	Screw machine products, bolts, etc.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	1958..	( <sup>1</sup> )	( <sup>1</sup> )
3451-	Screw machine products.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	1958..	( <sup>1</sup> )	( <sup>1</sup> )
3452-	Bolts, nuts, rivets, and washers <sup>2</sup> .....1963..	137	124
	1958..	99	123
34521	Standard industrial fasteners (bolts, nuts, screws, etc.).....1963..	118	124
	1958..	95	123
3461-	Metal stampings.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	1958..	( <sup>1</sup> )	( <sup>1</sup> )
34616	Metal commercial closures except crowns.....1963..	134	114
	1958..	124	111
34617	Metal crowns for glass and metal containers.....1963..	96	108
	1958..	94	110
347--	Metal services, n.e.c.....1963..	( <sup>3</sup> )	( <sup>3</sup> )
	1958..	( <sup>3</sup> )	( <sup>3</sup> )

n.e.c. Not elsewhere classified.

<sup>1</sup>Not shown because comparable quantity data were not obtained for a significant portion of these products.

<sup>2</sup>Adjusted to include special industrial fasteners (product class 34522) and headed products produced by cold and hot heading, other than industrial fasteners (product class 34523).

<sup>3</sup>Not applicable to these service industries--namely, plating and polishing (industry 3471) and metal coating, engraving, etc. (industry 3479).



TABLE 6C. **Product Classes—Value Shipped by All Manufacturing Establishments:**  
**1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
34510	Screw machine products.....	599,424	536,516	469,938	492,244	518,091	428,805	424,762	226,536
3452-	Bolts, nuts, rivets, and washers.....	1,175,719	1,097,212	949,800	1,005,919	1,081,218	859,446	706,392	483,492
34521	Bolts, nuts, and other standard industrial fasteners.....	843,037	787,455	695,972	745,592	818,860	669,560	568,728	446,701
34522	Special industrial fasteners (nonstandard).....	241,539	<sup>2</sup> 274,326	<sup>2</sup> 230,769	<sup>2</sup> 236,914	<sup>2</sup> 239,011	<sup>2</sup> 179,392	<sup>2</sup> 137,664	(NA)
34523	Headed products (produced by cold and hot heading), other than industrial fasteners.....	76,676	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	(NA)
34520	Bolts, nuts, rivets, and washers, n.s.k....	14,467	(35,421)	(23,059)	(23,413)	(23,347)	10,494	-	-
3461-	Metal stampings.....	2,483,666	2,384,119	2,159,616	2,294,710	2,327,353	1,948,110	1,699,902	1,254,424
34611	Vitreous enameled products.....	70,144	72,465	73,598	72,085	75,808	72,453	67,138	76,359
34612	Job stampings, except automotive.....	756,745	702,538	625,394	639,764	683,796	576,178	510,422	341,966
34613	Job stampings, automotive.....	848,076	738,359	620,268	743,622	707,857	551,179	474,349	401,041
34614	Stamped and spun hospital utensils and cooking and kitchen household utensils, aluminum.....	95,667	107,244	104,218	111,519	116,890	110,710	92,517	155,127
34615	Stamped and spun hospital utensils and cooking and kitchen household utensils, except aluminum.....	134,321	125,307	122,650	120,409	142,853	113,481	108,385	
34616	Metal commercial closures, except crowns...	147,943	154,097	145,455	143,012	138,144	131,133	94,949	45,918
34617	Crowns.....	81,977	83,685	84,679	79,083	88,333	80,751	78,443	60,429
34618	Other stamped and pressed metal end products.....	250,679	265,284	244,829	242,112	233,977	223,271	246,513	138,884
34610	Metal stampings, n.s.k.....	98,114	(135,140)	(138,525)	(143,104)	(139,695)	88,954	27,186	34,710
34710	Electroplating, plating and polishing <sup>3</sup> .....	501,949	447,153	411,372	394,141	393,788	349,686	296,408	172,475
34790	Coating, engraving, and allied services, n.e.c. <sup>3</sup> .....	286,484	270,368	228,073	249,133	228,839	184,050	95,910	60,828

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Data for product class 34523, Headed products (produced by cold and hot heading) other than industrial fasteners, are included with product class 34522, Special industrial fasteners (nonstandard).

<sup>3</sup>Represents only work done by establishments classified in the industry to which the product (service) is primary.

TABLE 6D. **Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
<b>BOLTS, NUTS, AND OTHER STANDARD INDUSTRIAL FASTENERS (34521)</b>			<b>VITREOUS-ENAMELED PRODUCTS (34611)</b>			<b>JOB STAMPINGS, AUTOMOTIVE (34613)—Continued</b>		
United States, total.....	843,037	669,560	United States, total....	70,144	72,453	East North Central.....	640,729	429,546
New England.....	80,813	85,357	New England.....	1,321	1,677	Ohio.....	152,817	80,636
Massachusetts.....	38,016	33,101	Middle Atlantic.....	26,403	21,130	Indiana.....	73,366	44,374
Connecticut.....	29,853	40,765	New York.....	9,093	( <sup>2</sup> )	Illinois.....	27,286	26,170
Middle Atlantic.....	207,154	167,668	Pennsylvania.....	17,310	14,802	Michigan.....	371,609	265,791
New York.....	43,681	42,910	North Central.....	25,236	( <sup>2</sup> )	Wisconsin.....	15,661	12,575
New Jersey.....	59,507	31,386	Indiana.....	5,828	( <sup>2</sup> )	West North Central.....	2,366	( <sup>2</sup> )
Pennsylvania.....	103,966	93,372	Illinois.....	7,857	11,929	South.....	77,529	( <sup>2</sup> )
East North Central.....	409,156	305,148	South.....	14,889	( <sup>2</sup> )	Kentucky.....	3,345	( <sup>2</sup> )
Ohio.....	108,670	94,907	Tennessee.....	6,233	( <sup>2</sup> )	West.....	6,498	( <sup>2</sup> )
Indiana.....	44,156	36,592	Pacific.....	2,295	2,157	California.....	6,271	( <sup>2</sup> )
Illinois.....	173,407	124,538						
Michigan.....	69,021	39,347	<b>JOB STAMPINGS, EXCEPT AUTOMOTIVE (34612)</b>			<b>STAMPED AND SPUN HOSPITAL UTENSILS, AND COOKING AND KITCHEN HOUSEHOLD UTENSILS, ALUMINUM (34614)</b>		
Wisconsin.....	13,902	9,764	United States, total....	756,745	576,178	United States, total....	95,667	110,710
West North Central.....	18,097	15,323	New England.....	74,435	60,960	Middle Atlantic.....	23,377	30,088
South Atlantic.....	33,689	17,125	Massachusetts.....	24,850	19,601	New York.....	2,822	3,051
East South Central.....	18,032	14,093	Rhode Island.....	6,282	3,487	East North Central.....	64,082	71,855
West South Central.....	6,793	6,058	Connecticut.....	41,930	37,329	Wisconsin.....	52,302	57,194
West.....	69,303	58,788	Middle Atlantic.....	179,903	157,860	All other divisions.....	8,208	( <sup>2</sup> )
California.....	61,792	( <sup>2</sup> )	New York.....	81,721	70,325			
<b>SPECIAL INDUSTRIAL FASTENERS (NONSTANDARD) (34522)</b>			New Jersey.....	54,511	40,659	<b>STAMPED AND SPUN HOSPITAL UTENSILS, AND COOKING AND KITCHEN HOUSEHOLD UTENSILS, EXCEPT ALUMINUM (34615)</b>		
United States, total.....	241,539	179,392	Pennsylvania.....	43,671	46,876	United States, total....	134,321	113,481
New England.....	27,644	21,104	East North Central.....	374,915	273,994	New England.....	1,026	2,672
Connecticut.....	9,418	( <sup>2</sup> )	Ohio.....	119,627	81,633	Middle Atlantic.....	26,129	38,080
Middle Atlantic.....	34,263	31,947	Indiana.....	24,979	20,390	New York.....	22,431	30,350
New York.....	8,730	4,424	Illinois.....	149,758	109,446	East North Central.....	90,458	55,789
New Jersey.....	4,832	4,965	Michigan.....	43,773	31,366	Ohio.....	20,390	11,041
Pennsylvania.....	20,701	22,558	Wisconsin.....	36,778	31,159	Illinois.....	33,338	27,109
North Central.....	152,348	104,309	West North Central.....	37,437	29,066	Wisconsin.....	32,867	15,098
Ohio.....	81,238	42,638	Minnesota.....	18,327	11,570	West North Central.....	4,437	2,673
Illinois.....	43,814	32,742	Missouri.....	9,545	9,197	Minnesota.....	2,567	( <sup>2</sup> )
Michigan.....	25,337	25,296	South Atlantic.....	11,996	10,319	South.....	7,796	( <sup>2</sup> )
South.....	2,933	1,015	West Virginia.....	5,880	5,549	West.....	4,475	( <sup>2</sup> )
Pacific.....	24,351	21,017	North Carolina.....	3,348	1,669	California.....	3,102	6,407
<b>HEADED PRODUCTS (PRODUCED BY COLD AND HOT HEADING), OTHER THAN INDUSTRIAL FASTENERS (34523)</b>			Florida.....	1,152	( <sup>2</sup> )	<b>METAL COMMERCIAL CLOSURES, EXCEPT CROWNS (34616)</b>		
United States, total.....		76,676	East South Central.....	28,261	13,942	United States, total....	147,943	131,133
New England.....		7,583	Kentucky.....	18,469	12,364	Middle Atlantic.....	49,599	40,946
Middle Atlantic.....		10,136	Tennessee.....	3,886	( <sup>2</sup> )	Pennsylvania.....	25,612	18,740
New York.....		3,457	West South Central.....	4,385	3,134	East North Central.....	68,586	( <sup>2</sup> )
Pennsylvania.....		6,679	Texas.....	2,700	( <sup>2</sup> )	Illinois.....	51,027	46,522
North Central.....		51,989	West.....	45,413	( <sup>2</sup> )	Pacific.....	7,807	7,294
Ohio.....		7,933	California.....	43,929	( <sup>2</sup> )	California.....	7,807	7,294
Illinois.....		16,741	<b>JOB STAMPINGS, AUTOMOTIVE (34613)</b>			All other divisions.....	21,951	( <sup>2</sup> )
Michigan.....		23,678	United States, total....	848,076	551,179			
South and West.....		6,965	New England.....	10,579	7,669			
			Massachusetts.....	4,607	( <sup>2</sup> )			
			Connecticut.....	5,691	4,490			
			Middle Atlantic.....	110,365	65,425			
			New York.....	10,640	9,188			

See footnotes at end of table.



TABLE 6D. **Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued**

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
CROWNS (34617)			OTHER STAMPED AND PRESSED METAL END PRODUCTS (34618)—Continued			OTHER STAMPED AND PRESSED METAL END PRODUCTS (34618)—Continued		
United States, total....	81,977	80,751						
Northeast.....	24,915	( <sup>2</sup> )	Middle Atlantic.....	73,298	50,358	West North Central.....	21,796	16,768
Pennsylvania.....	9,997	( <sup>2</sup> )	New York.....	33,599	24,363	Missouri.....	8,451	7,865
North Central.....	22,629	15,908	New Jersey.....	9,870	5,544	South Atlantic.....	8,013	5,090
Illinois.....	13,327	( <sup>2</sup> )	Pennsylvania.....	29,829	20,451	West Virginia.....	2,869	3,237
South and West.....	34,433	40,033				Georgia.....	1,591	( <sup>2</sup> )
OTHER STAMPED AND PRESSED METAL END PRODUCTS (34618)			East North Central.....	89,673	106,687	East South Central.....	10,787	5,232
United States, total....	250,679	223,271	Ohio.....	27,136	46,947	Kentucky.....	1,876	( <sup>2</sup> )
New England.....	30,574	20,772	Indiana.....	11,534	17,121			
Massachusetts.....	8,922	7,594	Illinois.....	31,664	31,514	West South Central.....	2,261	2,984
Connecticut.....	16,442	9,995	Michigan.....	7,976	5,207	West.....	14,277	( <sup>2</sup> )
			Wisconsin.....	11,372	5,898			

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million reported.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 34521, New Hampshire, Rhode Island, Minnesota, Missouri, Maryland, Virginia, North Carolina, Florida, Kentucky, Alabama, Texas, Colorado, and Washington; 34522, Massachusetts, Rhode Island, Mississippi, Oregon, and California; 34523, Connecticut, Indiana, Oklahoma, and California; 34611, Ohio, Michigan, Wisconsin, West Virginia, Kentucky, Texas, and California; 34612, Iowa, Kansas, Alabama, Mississippi, and Oklahoma; 34613, New Jersey, Pennsylvania, Iowa, West Virginia, South Carolina, Georgia, Florida, and Mississippi; 34614, New Jersey, Pennsylvania, Ohio, Illinois, and Georgia; 34615, New Jersey, Pennsylvania, Indiana, Missouri, Maryland, and Texas; 34616, New York, New Jersey, Indiana, Missouri, Maryland, West Virginia, and Tennessee; 34617, New York, New Jersey, Indiana, Wisconsin, Missouri, Delaware, Maryland, Georgia, Alabama, Louisiana, Texas, and California; 34618, Rhode Island, Minnesota, Iowa, Florida, Tennessee, Alabama, Texas, Washington, and California.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3451.--SCREW MACHINE PRODUCTS			
	Materials, parts, containers, and supplies, total.....		(X)	183,688	(X)	142,256
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	225,631	55,658	177,433	40,890
331012	Sheet and strip.....	..do.....	2,864	596	2,250	445
331017	Wire and wire products.....	..do.....	4,842	1,108	13,105	2,605
331013	Plates.....	..do.....	376	74	}	(NA)
331019	All other carbon steel mill shapes and forms.....	..do.....	3,306	1,005		
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	17,259	6,056	16,412	4,924
331029	All other alloy steel mill shapes and forms.....	..do.....	960	944	(NA)	781
331031	Stainless steel mill shapes and forms.....	..do.....	6,317	8,394	4,563	5,566
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	2,910	1,320	(NA)	(NA)
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	249	136	176	59
335102	Rod, bar, and mechanical wire.....	1,000 lbs.....	79,759	30,134	}	70,403
335123	Plate, sheet, and strip.....	..do.....	47	75		
335127	Pipe and tube.....	..do.....	1,565	689		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	..do.....	296	184	1,779	1,235
335205	Extruded shapes.....	..do.....	7,266	4,684	}	6,472
335209	All other aluminum mill shapes and forms.....	..do.....	3,784	2,601		
	Castings (rough and semifinished): <sup>1</sup>					
332300	Steel.....	Short tons.....	3,081	1,476	1,668	791
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	401	341	664	501
336200	Copper and copper-base alloy.....	..do.....	444	271	647	404
307902	Plastic rods, tubes, and other shapes.....		(NA)	625	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	37,022	(X)	24,424
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....		(X)	30,295	(X)	29,112
			INDUSTRY 3452.--BOLTS, NUTS, WASHERS, AND RIVETS			
	Materials, parts, containers, and supplies, total.....		(X)	433,638	(X)	304,574
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	304,021	51,098	212,405	35,392
331012	Sheet and strip.....	..do.....	131,101	23,348	107,726	17,502
331013	Plates.....	..do.....	21,920	2,394	13,855	1,567
331017	Wire and wire products.....	..do.....	653,885	128,041	541,806	96,504
331019	All other carbon steel mill shapes and forms.....	..do.....	48,664	10,860	17,147	3,123
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	51,798	14,119	20,099	5,938
331029	All other alloy steel mill shapes and forms.....	..do.....	48,925	15,302	30,866	8,457
331031	Stainless steel mill shapes and forms.....	..do.....	15,310	20,469	11,054	14,703
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	} 473	605	(NA)	(NA)
335790	Insulated wire and cable.....	1,000 lbs. (copper content)				
335102	Rod, bar, and mechanical wire.....	1,000 lbs.....	} 33,579	18,107	{ }	43,792
335127	Pipe and tube.....	..do.....				
335123	Sheet, plate, and strip.....	..do.....				
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	..do.....	2,362	1,130	1,900	1,022
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	..do.....	2,207	976	}	10,303
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	..do.....	11,535	7,094		
	Castings (rough and semifinished): <sup>3</sup>					
332300	Steel.....	Short tons.....	6,878	4,290	2,441	1,286
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	166	90	1,527	777
336200	Copper and copper-base alloy.....	..do.....	(D)	(D)	(D)	(D)
307902	Plastic rods, tubes, and other shapes.....		(NA)	689	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	100,609	(X)	70,189
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....		(X)	27,417	(X)	20,389

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3461.--METAL STAMPINGS			
	Materials, parts, containers, and supplies, total.....		(X)	1,171,137	(X)	924,207
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	111,749	18,978	74,127	12,615
331012	Sheet and strip.....	..do.....	2,167,494	335,917	1,702,467	247,185
331013	Plates.....	..do.....	106,281	14,988	70,793	9,723
331015	Structural shapes.....	..do.....	14,495	2,882	7,789	1,241
331017	Wire and wire products.....	..do.....	43,843	8,573	39,313	8,971
331018	Tinplate, terne plate, and black plate.....	..do.....	457,159	89,172	413,199	74,073
331019	All other carbon steel mill shapes and forms.....	..do.....	35,198	7,376	11,717	3,127
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	4,561	3,044	3,867	2,072
331029	All other alloy steel mill shapes and forms.....	..do.....	95,166	24,914	46,749	14,517
331031	Stainless steel.....	..do.....	66,963	74,027	59,187	62,702
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	2,132	1,183	2,565	1,521
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	44	50	188	150
335102	Rod, bar, and mechanical wire.....	1,000 lbs.....	19,023	7,733	70,303	33,504
335123	Plate, sheet, and strip.....	..do.....	62,561	33,912		
335127	Pipe and tube.....	..do.....	3,520	2,927		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	..do.....	212,435	92,326	168,783	72,343
335205	Extruded shapes.....	..do.....	24,393	12,146	13,552	6,878
335209	All other aluminum mill shapes and forms.....	..do.....	9,808	4,647		
333348	Zinc and zinc-base alloy refinery shapes.....	Short tons.....	12,072	3,506	11,390	2,631
	Castings (rough and semifinished): <sup>4</sup>					
332011	Iron (gray and malleable).....	..do.....	8,850	3,748	8,226	2,716
332300	Steel.....	..do.....	2,264	673	6,960	2,004
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	1,352	1,107	7,179	4,697
336200	Copper and copper-base alloy.....	..do.....	1,846	860	509	327
282140	Thermosetting resins.....	1,000 lbs. dry basis.....	43,231	7,706	(NA)	(NA)
282130	Thermoplastic resins.....	..do.....	47,410	9,538	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	300,095	(X)	361,210
976000	Materials, parts, containers, and supplies, n.s.k.....		(X)	2109,109		

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

<sup>1</sup>In 1963 there were, in addition, 807 short tons of steel castings produced and consumed in the same establishment. Data for other types of castings produced and consumed in the same establishment for 1963 and for all types of castings in 1958 are not available.

<sup>2</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

<sup>3</sup>Does not include castings produced and consumed in the same establishment.

<sup>4</sup>In 1963 there were, in addition, 1,857 short tons of steel castings produced and consumed in the same establishment. Data for other types of castings produced and consumed in the same establishment for 1963 and for all types of castings in 1958 are not available.

**TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of  
Power Equipment: 1962**

Item	Screw machine products (SIC 3451)	Bolts, nuts, rivets, and washers (SIC 3452)	Metal stampings (SIC 3461)	Plating and polishing (SIC 3471)	Metal coating, engraving, etc. (SIC 3479)
Total cost of purchased fuels and electric energy.....\$1,000..	6,087	14,001	29,331	20,147	7,638
Total cost of purchased fuels.....do....	1,479	5,711	12,495	8,070	4,448
Bituminous coal, lignite, and anthracite:					
Quantity.....1,000 short tons..	(S)	69	134	(S)	(S)
Cost.....\$1,000..	(S)	508	976	(S)	(S)
Coke and breeze:					
Quantity.....1,000 short tons..	-	(S)	(S)	-	-
Cost.....\$1,000..	-	(S)	(S)	-	-
Fuel oil (distillate and residual):					
Quantity.....1,000 barrels of 42 gallons..	182	415	1,368	526	204
Cost.....\$1,000..	856	1,468	3,269	2,098	925
Gas (natural, manufactured, still, blast furnace, and coke oven):					
Quantity.....million cu.ft..	427	5,064	9,609	6,901	5,585
Cost.....\$1,000..	340	3,277	6,206	4,280	2,582
Other fuels.....do....	269	443	2,042	1,584	783
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	262	560	1,067	661	176
Cost.....\$1,000..	4,608	8,290	16,836	12,077	3,190
Generated less sold.....million kw.-hrs..	-	(S)	21	(S)	(S)
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	230	426	887	360	128
Prime movers, total.....do....	13	19	79	49	11
Driving generators.....do....	4	6	30	20	4
Not driving generators.....do....	9	13	49	29	7
Electric motors, total.....do....	217	408	821	312	118
Driven by purchased energy.....do....	217	407	808	311	117
Driven by energy generated at establishment.....do....	-	1	13	(Z)	1
Aggregate horsepower per 100 production workers.....	768	979	820	865	786

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3452-	BOLTS, NUTS, RIVETS, AND WASHERS										
	Entire industry.....	573	57,618	371,026	43,972	92,502	257,477	695,276	527,860	1,218,247	31,431
	Establishments with—										
	90% or more specialization...	473	42,368	273,228	32,561	68,696	190,986	513,095	418,357	927,550	23,510
	75-89% specialization.....	46	6,851	40,763	5,031	10,515	27,205	79,133	49,087	129,468	3,067
34521	Bolts, nuts, and other standard industrial fasteners (primary product class of estab.).....	344	42,983	273,062	32,693	68,674	189,913	509,657	393,873	900,505	21,950
	Establishments with—										
	90% or more specialization....	247	20,525	130,129	15,525	33,160	88,624	256,669	211,164	465,334	11,898
	75-89% specialization.....	32	4,631	28,497	3,323	6,815	18,616	50,334	42,400	94,516	2,255
34522	Special industrial fasteners (nonstandard) (primary product class of estab.).....	77	11,510	77,988	8,715	18,471	53,289	145,264	91,524	234,498	5,958
	Establishments with—										
	90% or more specialization....	40	2,562	16,409	1,905	3,888	10,710	30,785	26,288	56,164	1,794
	75-89% specialization.....	16	2,926	19,459	2,079	4,240	12,261	34,865	20,199	54,920	1,136
34523	Headed products (produced by cold and hot heading), other than industrial fasteners (primary product class of estab.).....	51	2,185	15,452	1,788	4,064	10,909	31,689	33,463	64,853	2,617
	Establishments with—										
	90% or more specialization....	32	1,247	8,562	1,051	2,363	6,519	15,823	15,440	31,143	842
	75-89% specialization.....	9	475	3,321	358	862	1,948	7,109	9,127	16,200	459
3461-	METAL STAMPINGS										
	Entire industry.....	2,574	132,179	772,557	108,336	222,005	567,309	1,368,993	1,324,939	2,678,996	64,248
	Establishments with—										
	90% or more specialization...	1,951	74,264	420,317	61,302	126,599	307,097	756,615	740,017	1,490,645	31,311
	75-89% specialization.....	205	20,811	138,140	17,215	35,632	106,064	238,335	221,726	456,319	8,923
34611	Vitreous enameled products (primary product class of estab.).....	38	5,791	28,623	4,824	9,819	20,911	58,298	42,045	100,073	2,578
	Establishments with—										
	90% or more specialization....	22	1,910	8,230	1,592	3,302	5,951	14,251	13,287	27,321	376
	75-89% specialization.....	4	456	2,596	351	680	1,767	5,776	1,477	7,017	23
34612	Job stampings, except automotive (primary product class of estab.).....	1,100	44,573	260,732	36,258	75,149	186,625	430,033	344,817	771,186	18,260
	Establishments with—										
	90% or more specialization....	630	18,841	109,198	15,288	31,364	77,640	184,586	153,136	337,212	8,051
	75-89% specialization.....	152	6,916	40,963	5,574	11,480	28,927	63,107	46,600	109,511	2,097
34613	Job stampings, automotive (primary product class of estab.).....	364	34,495	221,571	29,106	60,822	171,445	384,005	441,239	820,986	13,364
	Establishments with—										
	90% or more specialization....	199	14,241	87,517	12,054	25,564	67,240	164,306	199,136	361,484	5,599
	75-89% specialization.....	66	9,993	72,334	8,498	17,840	58,125	121,047	113,927	234,146	4,254
34614	Stamped and spun hospital utensils and cooking and kitchen household utensils, aluminum (primary product class of estab.).....	29	6,784	35,881	5,535	10,962	26,021	78,724	87,345	162,520	5,656
	Establishments with—										
	90% or more specialization....	15	1,018	5,288	883	1,793	4,166	8,700	10,178	18,253	1,382
34615	Stamped and spun hospital utensils and cooking and kitchen household utensils, etc., aluminum (primary product class of estab.).....	61	7,035	39,585	5,532	11,107	26,882	82,140	75,824	157,008	2,415
	Establishments with—										
	90% or more specialization....	37	2,011	10,789	1,626	3,284	7,265	24,724	20,545	44,717	672
	75-89% or more specialization..	8	949	5,395	769	1,571	3,914	8,743	8,734	17,289	843

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3461-	METAL STAMPINGS—Continued										
34616	Metal commercial closures, except crowns (primary product class of estab.).....	36	5,732	33,114	4,684	9,221	24,077	66,935	76,980	144,167	2,951
	Establishments with—										
	90% or more specialization....	25	3,789	23,057	3,036	5,853	16,270	45,687	51,713	97,659	1,735
34617	Crowns (primary product class of estab.).....	20	4,265	27,506	3,438	6,942	20,898	50,418	75,443	125,436	7,002
	Establishments with—										
	90% or more specialization....	12	1,103	7,114	882	1,851	4,762	13,816	22,130	36,466	662
34618	Other stamped and pressed metal end products (primary product class of estab.).....	205	14,347	79,991	11,515	22,317	56,737	137,963	125,096	261,971	6,269
	Establishments with—										
	90% or more specialization....	122	4,904	26,413	4,068	7,937	19,285	47,360	43,432	90,962	2,196
	75-89% specialization.....	22	1,598	7,549	1,301	2,513	5,471	15,304	11,087	25,917	795



TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
INDUSTRY 3451.—SCREW MACHINE PRODUCTS								
Ferrous foundry.....	1	1	-	-	(D)	(D)	-	-
Nonferrous foundry (except die casting).....	1	1	-	-	(D)	(D)	-	-
Nonferrous die casting.....	2	2	-	-	(D)	(D)	-	-
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	6	6	-	-	10	10	-	-
Electroplating and other plating.....	20	17	3	-	52	22	30	-
Galvanizing and other hot dip coating.....	3	3	-	-	4	4	-	-
Heat treating of metals.....	44	38	6	-	115	53	62	-
Automatic screw machine department <sup>2</sup> .....	860	281	384	195	12,226	420	3,839	7,967
Machine shop.....	434	174	169	91	6,167	258	1,701	4,208
Tool and die shop.....	144	108	35	1	515	161	(D)	(D)
Foundry pattern shop.....	4	3	1	-	25	(D)	(D)	-
Plate or structural fabrication.....	8	7	1	-	30	(D)	(D)	-
Stamping, blanking and forming of metals.....	73	57	14	2	268	71	(D)	(D)
Painting, lacquering and enameling on metals.....	21	21	-	-	23	23	-	-
INDUSTRY 3452.—BOLTS, NUTS, RIVETS, AND WASHERS								
Ferrous foundry.....	2	1	1	-	(D)	(D)	(D)	-
Nonferrous foundry (except die casting).....	2	2	-	-	(D)	(D)	-	-
Nonferrous die casting.....	6	4	1	1	39	(D)	(D)	(D)
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	15	5	10	-	108	13	95	-
Electroplating and other plating.....	69	36	21	12	670	74	190	406
Galvanizing and other hot dip coating.....	19	11	8	-	91	18	73	-
Heat treating of metals.....	113	69	33	11	778	133	304	341
Automatic screw machine department.....	121	48	45	28	2,585	89	496	2,000
Machine shop.....	186	71	65	50	3,839	136	673	3,040
Tool and die shop.....	138	52	53	33	2,327	87	514	1,726
Foundry pattern shop.....	2	2	-	-	(D)	(D)	-	-
Plate or structural fabrication.....	5	3	1	1	(D)	(D)	(D)	(D)
Stamping, blanking and forming of metals.....	130	44	45	41	3,583	65	447	3,071
Painting, lacquering and enameling on metals.....	33	27	4	2	108	37	(D)	(D)
INDUSTRY 3461.—METAL STAMPINGS								
Nonferrous die casting.....	23	15	5	3	273	19	44	210
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	20	9	4	7	484	13	32	439
Electroplating and other plating.....	107	52	41	14	1,057	88	333	636
Galvanizing and other hot dip coating.....	28	13	10	5	287	21	93	173
Heat treating of metals.....	118	92	22	4	498	130	199	169
Automatic screw machine department.....	38	25	12	1	285	42	(D)	(D)
Machine shop.....	414	236	139	39	3,528	453	1,201	1,874
Tool and die shop.....	722	394	258	70	6,077	772	2,308	2,997
Foundry pattern shop.....	20	17	2	1	125	23	(D)	(D)
Plate or structural fabrication.....	48	35	7	6	291	46	61	184
Stamping, blanking and forming of metals <sup>3</sup> .....	1,328	305	544	479	41,926	428	5,771	35,737
Painting, lacquering and enameling on metals.....	370	212	103	55	4,480	354	985	3,141

NOTE: Very small establishments were not requested to report their metal working operations, and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

Item	Industry		
	3451	3452	3461
Total number of establishments in the industry.....	1,874	573	2,574
Number of establishments which reported one or more of the specified operations.....	956	317	1,442
Percent of industry production workers in these establishments.....	80-85	75-80	80-85
Number of establishments which reported "none" of the operations apply.....	54	62	93
Percent of industry production workers in these establishments.....	0-5	5-10	0-5
Percent of industry production workers in establishments which completed the metalworking operations inquiry.....	85-90	80-85	80-85

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.

<sup>2</sup>Industry 3451 is composed of establishments primarily engaged in producing screw machine products. However, only 860 of the 1,874 establishments classified in the industry reported such operations. Most of the remaining establishments in the industry, consisting of small plants with fewer than 5 employees, reported on "short-form" schedules which did not include a metalworking operations inquiry. In addition, there is evidence that some of the establishments with 5 to 20 employees did not answer this inquiry. Also, some establishments in this industry probably have no automatic screw machines but are limited to hand-operated screw machines.

<sup>3</sup>Since industry 3461 is composed of establishments primarily engaged in producing metal stampings, all establishments classified in the industry should have reported stamping, blanking and forming operations. However, only 1,328 of the 2,574 establishments classified in the industry reported such operations; 93 establishments reported no metalworking operations; and the remainder, consisting mainly of small plants with fewer than 5 employees reported on "short-form" schedules which did not include a metalworking operation inquiry. In addition, there is evidence that many of the establishments with 5 to 49 employees did not answer this inquiry.

## FABRICATED METAL PRODUCTS, N.E.C.

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3481—Miscellaneous Fabricated Wire Products
- 3491—Metal Shipping Barrels, Drums, Kegs, and Pails
- 3492—Safes and Vaults
- 3493—Steel Springs
- 3494—Valves and Pipe Fittings, Except Plumbers' Brass Goods
- 3496—Collapsible Tubes
- 3497—Metal Foil and Leaf
- 3498—Fabricated Pipe and Fabricated Pipe Fittings
- 3499—Fabricated Metal Products, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3481—MISCELLANEOUS FABRICATED WIRE PRODUCTS

This industry comprises establishments primarily engaged in manufacturing miscellaneous fabricated wire products from purchased wire. Rolling mills engaged in manufacturing wire products are classified in Major Group 33; establishments manufacturing nonferrous wire nails and spikes in industry 3399; those drawing and insulating nonferrous wire in industry 3357; and those assembling wire bedsprings or seats are classified in Major Group 25. For a detailed list of products of industry 3481, refer to table 6A, product codes 3481111 to 3481998.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Fabricated Wire Products, N.E.C., Industry in 1963 totaled \$1,031 million. This amount included shipments of fabricated wire products (primary products) valued at \$904 million, shipments of other products (secondary products) valued at \$71 million, and miscellaneous receipts (mainly receipts for sale of products bought and resold) at \$56 million.



This industry's shipments of fabricated wire products in 1963 represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 included steel springs (\$14 million) and metal stampings (\$6 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 15 percent of the total industry shipments are represented by plants specializing in precision mechanical springs; 22 percent in other wire springs; and 32 percent in other fabricated wire products.

Shipments of fabricated wire products, n.e.c., by this industry in 1963 represented 65 percent of all shipments of these products (\$1,399 million) by all industries. In 1958 the coverage ratio was 64 percent. Industry 3315, Steel Wire Drawing, Etc., shipped \$186 million of fabricated wire products.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3481, e.g., noninsulated ferrous wire rope, etc., 43 percent; precision mechanical springs, 86 percent; other wire springs, 87 percent; and fencing and fence gates, 46 percent.

The production index for the primary products of the industry decreased to 122 in 1963 from the 1958 level of 106. The unit value index for 1963 was 118 compared to 112 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3491—METAL SHIPPING BARRELS, DRUMS, KEGS, AND PAILS

This industry comprises establishments primarily engaged in manufacturing ferrous and nonferrous shipping barrels, drums, kegs, and pails. For a detailed list of products of industry 3491, refer to table 6A, product codes 3491111 to 3491331.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Metal Barrels, Drums, and Pails Industry in 1963 totaled \$303 million. This amount included shipments of metal barrels, drums, kegs, and pails (primary products) valued at \$275 million, shipments of other products (secondary products) valued at \$23 million, and miscellaneous receipts (mainly receipts for sale of products bought and resold) at \$6 million.

This industry's shipments of metal barrels, drums, kegs, and pails in 1963 represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was also 92 percent. Secondary products shipped by this industry in 1963 included metal cans (\$7 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 72 percent of the total industry shipments are represented by plants specializing in steel shipping barrels and drums.

Shipments of metal barrels, drums, kegs, and pails by this industry in 1963 represented 86 percent of all shipments of these products (\$318 million) by all industries. In 1958 the coverage ratio was also 86 percent. Other industries shipping metal barrels, drums, kegs, and pails included industry 3411, Metal Cans, \$11.7 million; and industry 3461, Metal Stampings, \$7.3 million.

The production index for the primary products of the industry increased to 110 in 1963 from the 1958 level of 102. The unit value index for 1963 was 132 compared to 121 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3492—SAFES AND VAULTS

This industry comprises establishments primarily engaged in manufacturing fire or burglary resistive steel safes and vaults (except concrete grave vaults—industry 3272, and metal grave vaults—industry 3988), and similar fire or burglary resistive products. For a detailed list of products of industry 3492, refer to table 6A, product codes 3492013 to 3492098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Safes and Vaults Industry in 1963 totaled \$78 million.

This industry's shipments of safes and vaults in 1963 represented 81 percent of its total product shipments. The industry specialization ratio in 1958 was 82 percent.

Shipments of safes and vaults by this industry in 1963 represented between 90 and 95 percent of all shipments of these products (\$59 million) by all industries. In 1958 the coverage ratio was 97 percent.

#### 3493—STEEL SPRINGS

This industry comprises establishments primarily engaged in manufacturing leaf springs, hot wound springs, and coiled flat springs. Establishments primarily engaged in manufacturing wire springs are classified in industry 3481, and rolling mills manufacturing steel springs in industry 3312. For a detailed list of products of industry 3493, refer to table 6A, product codes 3493011 to 3493098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Steel Springs Industry in 1963 totaled \$158 million. This amount included shipments of steel springs (primary products) valued at \$137 million, shipments of other products (secondary products) valued at \$14 million, and miscellaneous receipts at \$7 million.

This industry's shipments of steel springs in 1963 represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 81 percent. Secondary products shipped by this industry in 1963 included precision mechanical springs (\$7 million).

Shipments of steel springs by this industry in 1963 represented 67 percent of all shipments of these products (\$205 million) by all industries. In 1958 the coverage ratio was 69 percent. Other industries shipping steel springs included industry 3481, Fabricated Wire Products, N.E.C., \$16 million.

The production index for the primary products of the industry increased to 124 in 1963 from the 1958 level of 89. The unit value index for 1963 was 125 compared to 116 in 1958. Both indexes were computed on a basis of 1954 = 100.



#### 3494—VALVES AND PIPE FITTINGS, EXCEPT PLUMBERS' BRASS GOODS

This industry comprises establishments primarily engaged in manufacturing valves for controlling the flow of liquids or gases in pipes and mains, and for machinery. Establishments primarily engaged in manufacturing faucets, spigots, and similar plumbers' brass goods and fittings are classified in industry 3432. For a detailed list of products of industry 3494, refer to table 6A, product codes 3494111 to 3494498.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Valves and Pipe Fittings Industry in 1963 totaled \$1,589 million. This amount included shipments of valves and pipe fittings (primary products) valued at \$1,300 million, shipments of other products (secondary products) valued at \$214 million, and miscellaneous receipts (mainly receipts for products bought and resold) at \$74 million.

This industry's shipments of valves and pipe fittings in 1963 represented 86 percent of its total product shipments. The industry specialization ratio in 1958 was 88 percent. Secondary products shipped by this industry in 1963 included aircraft engine parts and accessories (\$13 million) and other refrigeration and air-conditioning equipment (\$12 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 46 percent of the total industry shipments are represented by plants specializing in metal valves for piping systems and 31 percent in metal fittings and unions for piping systems.

Shipments of valves and pipe fittings by this industry in 1963 represented 85 percent of all shipments of these products (\$1,525 million) by all industries. In 1958 the coverage ratio was 88 percent. Other industries shipping valves and pipe fittings included industry 3561, Pumps and Compressors, \$34 million; and industry 3533, Oil Field Machinery, \$5 million.

The production index for the primary products of the industry increased to 129 in 1963 from the 1958 level of 104. The unit value index for 1963 was 127 compared to 125 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3496—COLLAPSIBLE TUBES

This industry comprises establishments primarily engaged in manufacturing collapsible tubes defined as cylindrical containers for viscous products, made of thin flexible metal, usually of tin, tin-lined lead, lead, lead-tin alloy, or aluminum, with integral shoulder and neck, provided with an appropriate size opening in the throat, and usually with a screw cap made of plastic material for closure over the neck. For a detailed list of products of industry 3496, refer to table 6A, product codes 3496011 to 3496029.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Collapsible Tubes Industry in 1963 totaled \$51 million. This amount included shipments of collapsible tubes (primary products) valued at \$44 million, shipments of other products (secondary products) valued at \$6 million, and miscellaneous receipts (mainly receipts for products bought and resold) at \$1 million.

This industry's shipments of collapsible tubes in 1963 represented 88 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent.

Shipments of collapsible tubes by this industry in 1963 represented 100 percent of all shipments of these products (\$44 million) by all industries. In 1958 the coverage ratio was also 100 percent.

The production index for the primary products of the industry increased to 115 in 1963 from the 1958 level of 98. The unit value index for 1963 was 112 compared to 111 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3497—METAL FOIL AND LEAF

This industry comprises establishments primarily engaged in manufacturing gold, silver, tin, and other metal foil (including converted metal foil) and leaf. Establishments primarily engaged in manufacturing plain aluminum foil are classified in industry 3352. For a detailed list of products of industry 3497, refer to table 6A, product codes 3497023 to 3497057.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Metal Foil and Leaf Industry in 1963 totaled \$181 million. This amount included shipments of metal foil and leaf (primary products) valued at \$147 million, shipments of other products (secondary products) valued at \$29 million, and miscellaneous receipts at \$5 million.

This industry's shipments of metal foil and leaf in 1963 represented 84 percent of its total product shipments. The industry specialization ratio in 1958 was 83 percent. Secondary products shipped by this industry in 1963 included miscellaneous gravure printing (\$4 million).

Shipments of metal foil and leaf by this industry in 1963 represented 45 percent of all shipments of these products (\$330 million) by all industries. In 1958 the coverage ratio was 52 percent. Other industries shipping metal foil and leaf consisted mainly of industry 3352, Aluminum Rolling and Drawing, \$135 million; and industry 2641, Paper Coating and Glazing, \$18 million.

The production index for the primary products of the industry increased to 177 in 1963 from the 1958 level of 84. The unit value index for 1963 was 131 compared to 128 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3498—FABRICATED PIPE AND FABRICATED PIPE FITTINGS

This industry comprises establishments primarily engaged in fabricating pipe and pipe fittings from purchased pipe, by cutting, threading, bending, etc. Establishments primarily engaged in manufacturing cast iron pipe and fittings, including cast and forged pipe fittings which have been machined and threaded, are classified in industry 3321; welded and heavy riveted pipe in industry 3317; and seamless steel pipe in industry 3317. Establishments primarily engaged in manufacturing products, such as bannisters, railings, and grilles from pipe are classified in industry 3446. For a detailed list of products of industry 3498, refer to table 6A, product codes 3498013 to 3498019.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Fabricated Pipe and Fittings Industry in 1963 totaled \$306 million. This amount included shipments of fabricated pipe and



fittings (primary products) valued at \$260 million, shipments of other products (secondary products) valued at \$21 million, and miscellaneous receipts (mainly receipts for products bought and resold) at \$25 million.

This industry's shipments of fabricated pipe and fittings in 1963 represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 89 percent.

Shipments of fabricated pipe and fittings by this industry in 1963 represented 91 percent of all shipments of these products (\$287 million) by all industries. In 1958 the coverage ratio was 93 percent. Other industries shipping fabricated pipe and fittings (primary products) included industry 3494, Valves and Pipe Fittings, \$4 million; and industry 3499, Fabricated Metal Products, N.E.C., \$3 million.

#### 3499—FABRICATED METAL PRODUCTS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing fabricated metal products, not elsewhere classified. Establishments primarily engaged in manufacturing advertising novelties are classified in industry 3993. For a detailed list of products of industry 3499, refer to table 6A, product codes 3499051 to 3499059.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Fabricated Metal Products, N.E.C., Industry in 1963 totaled \$573 million. This amount included shipments of fabricated metal products, n.e.c. (primary products) valued at \$469 million, shipments of other products (secondary products) valued at \$60 million, and miscellaneous receipts (mainly receipts for products bought and resold) at \$44 million.

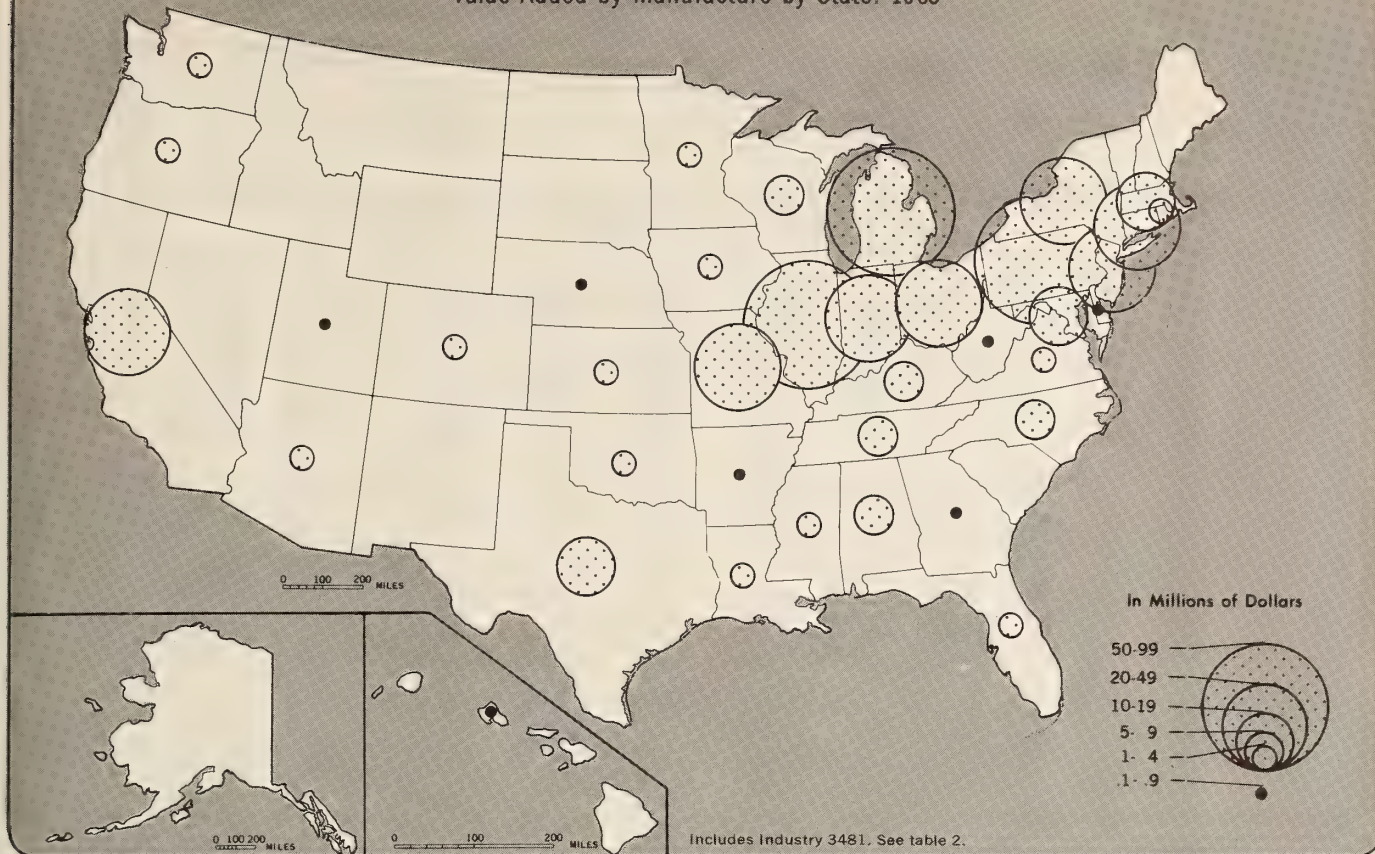
This industry's shipments of fabricated metal products in 1963 represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was 88 percent. Secondary products shipped by this industry in 1963 included wood products, n.e.c. (\$3 million), job stampings, except automotive (\$2 million), and fabricated pipe and fittings (\$3 million).

Shipments of fabricated metal products, n.e.c., by this industry in 1963 represented 62 percent of all shipments of these products (\$753 million) by all industries. In 1958 the coverage ratio was also 62 percent. Other industries shipping fabricated metal products included industry 3429, Hardware, N.E.C., \$13 million; and industry 3461, Metal Stampings, \$12 million.



# FABRICATED WIRE PRODUCTS, N.E.C.: SIC 348

Value Added by Manufacture by State: 1963



# FABRICATED METAL PRODUCTS, N.E.C.: SIC 349

Value Added by Manufacture by State: 1963

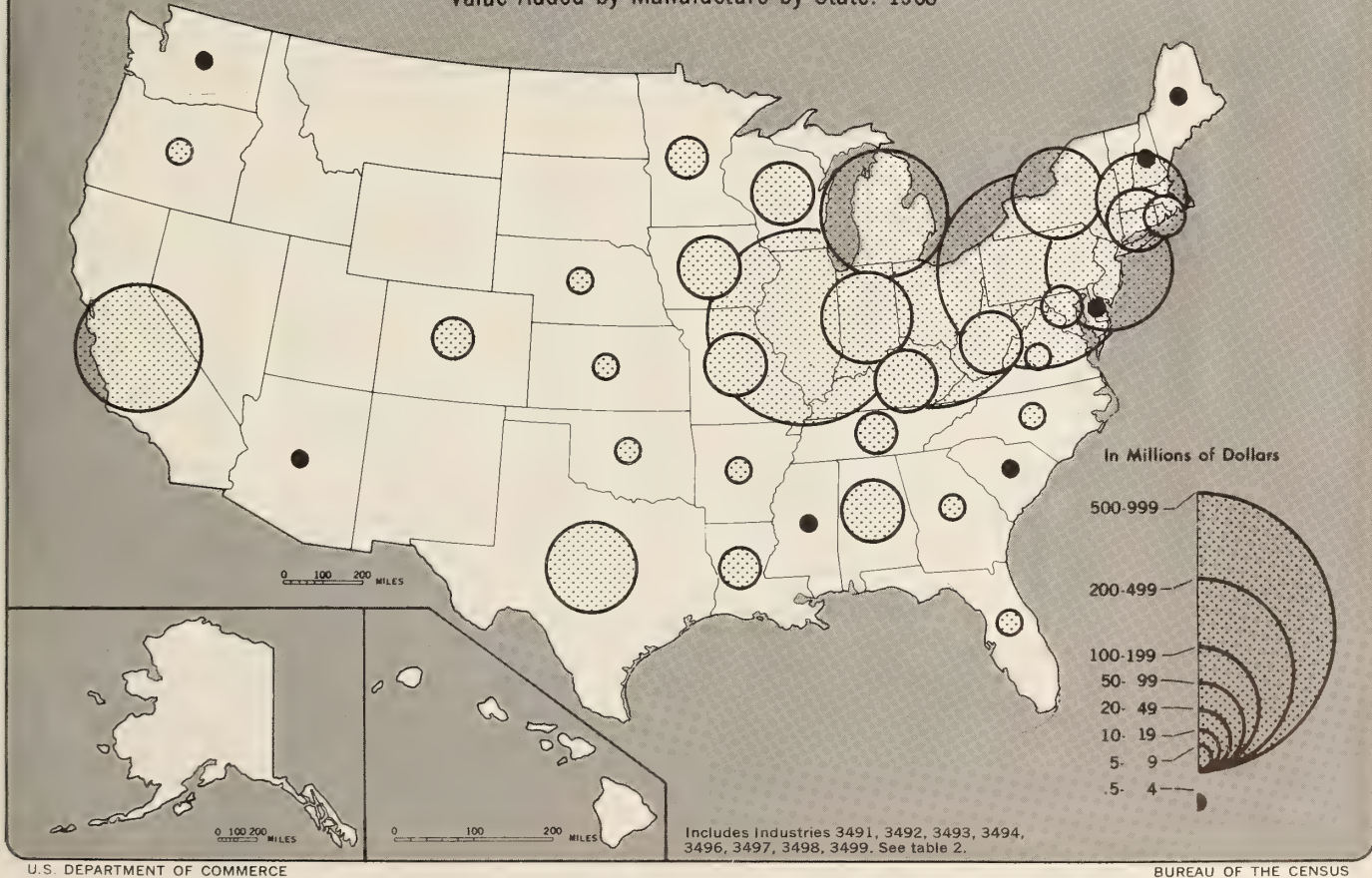




TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spec- ializa- tion ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3481.—FABRICATED WIRE PRODUCTS, N.E.C.														
1963.....	1,464	1,567	557	55,514	297,626	45,070	92,096	213,329	539,137	490,937	1,030,876	24,795	93	65
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	60,364	325,554	48,407	100,635	226,601	561,389	512,263	1,067,822	32,547	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	57,405	300,298	45,822	94,876	208,087	510,512	472,342	983,642	22,473	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	60,874	307,217	48,858	99,456	218,029	518,944	494,353	1,016,382	28,657	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	60,714	308,944	49,322	103,382	222,745	535,323	520,507	1,052,956	24,856	(NA)	(NA)
1958.....	1,371	1,463	538	55,476	261,027	44,125	86,278	184,432	439,940	425,981	874,923	18,105	91	64
1957 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	62,313	286,158	50,604	98,389	208,300	503,679	442,910	939,980	23,815	89	68
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	63,397	284,801	52,448	105,120	209,891	505,726	434,205	928,656	17,655	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	63,948	276,411	54,040	108,048	209,013	484,084	405,995	879,942	(S)	(NA)	(NA)
1954.....	1,205	1,275	498	59,929	243,904	50,067	99,329	181,835	413,310	352,480	768,709	17,503	89	63
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	65,907	268,627	55,619	112,820	208,208	450,277	390,879	841,156	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	64,108	247,261	53,983	106,773	185,892	401,457	325,531	726,988	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	65,426	241,277	55,178	111,372	184,354	416,314	351,699	768,013	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	65,048	216,199	56,295	112,901	169,476	372,096	305,767	677,863	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	55,281	175,483	46,626	96,500	137,412	273,994	220,065	496,885	(NA)	(NA)	(NA)
1947.....	853	911	(NA)	56,973	161,759	49,371	100,490	128,736	266,966	199,007	465,973	15,540	91	60
1939.....	(NA)	669	(NA)	35,916	49,067	30,386	(NA)	35,539	83,865	74,952	158,817	(NA)	(NA)	(NA)
1937.....	(NA)	563	(NA)	37,880	50,569	33,471	(NA)	39,207	86,214	78,296	164,510	(NA)	(NA)	(NA)
1935.....	(NA)	536	(NA)	28,797	33,811	25,165	(NA)	25,426	61,585	55,984	117,569	(NA)	(NA)	(NA)
1933.....	(NA)	429	(NA)	20,270	18,433	17,633	(NA)	14,155	39,300	35,220	74,520	(NA)	(NA)	(NA)
1931.....	(NA)	494	(NA)	(NA)	(NA)	17,226	(NA)	17,386	46,386	40,308	86,694	(NA)	(NA)	(NA)
1929.....	(NA)	547	(NA)	25,609	37,501	22,388	(NA)	27,912	78,661	68,144	146,805	(NA)	(NA)	(NA)
1927.....	(NA)	512	(NA)	25,174	35,875	21,697	(NA)	26,439	65,443	63,093	128,536	(NA)	(NA)	(NA)
1925.....	(NA)	462	(NA)	22,406	31,835	19,268	(NA)	23,835	55,825	59,604	115,429	(NA)	(NA)	(NA)
1923.....	(NA)	462	(NA)	19,307	25,574	16,783	(NA)	19,341	47,968	52,280	100,248	(NA)	(NA)	(NA)
1921.....	(NA)	413	(NA)	13,695	18,462	11,485	(NA)	13,314	29,346	37,039	66,385	(NA)	(NA)	(NA)
1919.....	(NA)	558	(NA)	17,883	21,585	15,224	(NA)	15,506	39,795	50,754	90,549	(NA)	(NA)	(NA)
1914.....	(NA)	552	(NA)	14,196	9,593	12,126	(NA)	6,719	17,675	24,114	41,789	(NA)	(NA)	(NA)
1909.....	(NA)	611	(NA)	14,510	9,005	12,348	(NA)	6,331	17,544	24,394	41,938	(NA)	(NA)	(NA)
1904.....	(NA)	649	(NA)	15,315	8,217	13,379	(NA)	6,100	15,182	17,856	33,038	(NA)	(NA)	(NA)
1899.....	(NA)	596	(NA)	10,137	4,834	9,142	(NA)	3,894	9,027	10,813	19,840	(NA)	(NA)	(NA)
INDUSTRY 3491.—METAL BARRELS, DRUMS, AND PAILS														
1963.....	95	145	93	10,508	66,614	8,480	17,713	49,127	119,617	183,880	303,423	6,412	92	86
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,592	62,158	7,634	15,956	45,084	104,419	174,977	279,535	(5,582)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,209	55,543	7,291	14,755	39,921	97,244	158,533	257,101	4,147	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,769	55,579	7,827	14,882	38,978	93,601	163,186	(256,342)	5,665	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	(9,406)	(54,795)	(7,693)	(15,309)	(40,167)	(105,702)	(171,511)	(277,616)	(4,186)	(NA)	(NA)
1958 (new) <sup>1</sup> .....	78	126	75	9,496	53,200	7,584	15,244	38,766	96,171	153,135	250,256	5,332	92	86
1958 (old) <sup>3</sup> .....	(NA)	121	70	9,055	50,427	7,239	14,246	36,352	91,230	150,911	242,574	4,416	92	86
1957 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	10,420	56,727	8,437	17,447	42,692	104,053	175,630	278,925	5,433	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,547	55,249	8,724	18,570	42,414	102,020	168,667	269,567	7,841	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,657	52,342	8,832	18,919	40,490	95,616	156,489	253,450	7,786	(NA)	(NA)
1954.....	51	93	63	10,585	48,501	8,687	17,924	37,058	85,667	137,670	224,920	5,860	82	86
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,027	45,596	8,353	17,037	34,885	76,687	126,573	203,260	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,773	39,687	8,278	16,729	30,807	78,159	113,317	191,476	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,181	41,786	9,636	19,649	33,625	98,838	147,356	246,194	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,329	30,713	8,305	15,965	24,706	72,831	110,218	183,049	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,574	27,555	7,347	13,504	21,183	66,127	90,060	156,187	(NA)	(NA)	(NA)
1947.....	47	71	53	10,927	31,368	9,341	18,483	24,955	64,186	109,086	173,272	3,607	83	83
1939.....	(NA)	64	(NA)	6,964	9,545	6,072	(NA)	7,360	16,838	32,328	49,166	(NA)	(NA)	(NA)
1937.....	(NA)	58	(NA)	7,051	9,159	6,231	(NA)	7,357	17,879	30,296	48,175	(NA)	(NA)	(NA)
1935.....	(NA)	64	(NA)	6,481	7,624	5,761	(NA)	5,839	13,560	21,090	34,650	(NA)	(NA)	(NA)
1933.....	(NA)	58	(NA)	7,015	6,959	6,517	(NA)	6,026	12,364	18,035	30,399	(NA)	(NA)	(NA)
1931.....	(NA)	52	(NA)	(NA)	(NA)	3,253	(NA)	3,513	8,654	12,990	21,644	(NA)	(NA)	(NA)
1929.....	(NA)	53	(NA)	4,666	7,665	4,110	(NA)	5,769	15,878	21,947	37,825	(NA)	(NA)	(NA)
1927.....	(NA)	39	(NA)	3,344	5,390	2,853	(NA)	3,986	9,369	14,736	24,105	(NA)	(NA)	(NA)
1925.....	(NA)	33	(NA)	2,286	3,866	2,021	(NA)	2,914	7,185	12,743	19,928	(NA)	(NA)	(NA)
1923.....	(NA)	39	(NA)	3,145	4,912	2,668	(NA)	3,363	8,431	14,818	23,249	(NA)	(NA)	(NA)
1921.....	(NA)	31	(NA)	2,445	3,525	2,013	(NA)	2,323	5,258	9,267	14,525	(NA)	(NA)	(NA)
1919 <sup>4</sup> .....	(NA)	33	(NA)	3,956	5,899	3,322	(NA)	4,435	9,792	15,151	24,943	(NA)	(NA)	(NA)
INDUSTRY 3492.—SAFES AND VAULTS														
1963.....	28	32	15	3,346	21,782	2,304	4,817	14,041	56,223	24,269	78,012	1,794	81	90-95
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	3,300	20,825	2,070	4,390	12,323	50,901	20,559	71,254	934	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	3,383	20,183	2,169	4,456	12,231	49,240	20,677	69,546	1,343	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	3,581	19,273	2,368	4,661	12,253	46,614	20,106	66,183	534	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	3,724	20,062	2,391	4,838	12,577	44,202	19,429	62,257	1,021	(NA)	(NA)
1958.....	31	33	12	3,495	15,843	2,323	4,417	10,722	39,537	18,514	58,790	683	82	97

See footnotes at end of table.

TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new (\$1,000)	Spec- ializa- tion ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3492.—SAFES AND VAULTS—Continued														
1957 <sup>1 2</sup>	(NA)	(NA)	(NA)	3,548	14,869	2,402	4,492	10,054	38,141	15,225	51,858	627	86	97
1956 <sup>1</sup>	(NA)	(NA)	(NA)	3,072	14,037	2,295	4,629	9,787	35,604	15,213	50,566	622	(NA)	(NA)
1954 <sup>1</sup>	25	26	10	3,442	15,030	2,581	5,050	10,341	29,583	12,398	41,758	714	87	97
1952 <sup>1</sup>	(NA)	(NA)	(NA)	3,752	14,985	2,796	(NA)	10,754	29,211	11,276	40,487	(NA)	(NA)	(NA)
1951 <sup>1</sup>	(NA)	(NA)	(NA)	3,773	14,120	2,961	(NA)	10,790	28,695	13,976	42,671	(NA)	(NA)	(NA)
1950 <sup>1</sup>	(NA)	(NA)	(NA)	4,166	13,800	2,648	(NA)	7,848	21,154	12,405	33,559	(NA)	(NA)	(NA)
1949 <sup>1</sup>	(NA)	(NA)	(NA)	3,048	9,511	2,286	(NA)	6,263	17,450	8,379	25,829	(NA)	(NA)	(NA)
1947 <sup>1</sup>	26	26	(NA)	3,754	10,117	3,004	6,035	7,437	19,434	9,782	29,216	580	98	98
1939 <sup>1</sup>	(NA)	16	(NA)	1,558	2,286	1,236	(NA)	1,589	3,671	2,413	6,084	(NA)	(NA)	(NA)
1937 <sup>1</sup>	(NA)	14	(NA)	1,359	1,951	1,132	(NA)	1,445	3,151	1,998	5,149	(NA)	(NA)	(NA)
1935 <sup>1</sup>	(NA)	14	(NA)	1,060	1,280	809	(NA)	800	2,047	1,266	3,313	(NA)	(NA)	(NA)
1933 <sup>1</sup>	(NA)	21	(NA)	1,208	1,058	933	(NA)	643	1,980	938	2,918	(NA)	(NA)	(NA)
1931 <sup>1</sup>	(NA)	25	(NA)	(NA)	(NA)	2,044	(NA)	2,176	7,534	4,073	11,607	(NA)	(NA)	(NA)
1929 <sup>1</sup>	(NA)	27	(NA)	3,782	6,442	3,033	(NA)	4,439	12,970	6,392	19,362	(NA)	(NA)	(NA)
1927 <sup>1</sup>	(NA)	25	(NA)	3,936	5,796	3,386	(NA)	4,494	11,214	7,226	18,440	(NA)	(NA)	(NA)
INDUSTRY 3493.—STEEL SPRINGS														
1963 <sup>1</sup>	91	96	49	6,287	41,321	5,110	10,633	31,398	69,305	89,063	157,704	1,962	91	67
1962 <sup>1</sup>	(NA)	(NA)	(NA)	7,036	45,680	5,489	11,573	33,717	77,303	88,604	165,132	2,954	(NA)	(NA)
1961 <sup>1</sup>	(NA)	(NA)	(NA)	6,356	38,570	4,891	9,901	27,720	60,508	70,856	131,091	(2,027)	(NA)	(NA)
1960 <sup>1</sup>	(NA)	(NA)	(NA)	6,629	40,337	5,235	10,718	29,672	65,442	79,282	143,274	2,626	(NA)	(NA)
1959 <sup>1</sup>	(NA)	(NA)	(NA)	7,078	40,824	5,592	11,045	29,535	67,644	84,194	150,398	(2,140)	(NA)	(NA)
1958 <sup>1 2</sup>	84	90	53	6,758	35,607	5,242	9,978	25,499	54,135	65,639	120,525	1,721	81	69
1957 <sup>1 2</sup>	(NA)	(NA)	(NA)	9,194	51,289	7,436	15,341	38,740	80,175	124,146	200,253	(S)	(NA)	(NA)
1956 <sup>1</sup>	(NA)	(NA)	(NA)	9,005	48,950	7,327	15,268	37,497	79,036	118,564	194,749	4,270	(NA)	(NA)
1955 <sup>1</sup>	(NA)	(NA)	(NA)	9,759	50,309	8,108	17,470	39,944	79,914	120,925	198,543	(S)	(NA)	(NA)
1954 <sup>1</sup>	89	101	43	7,078	33,304	5,650	11,429	24,510	50,768	70,853	122,928	36,127	84	74
1953 <sup>1</sup>	(NA)	(NA)	(NA)	8,120	38,569	6,755	(NA)	29,371	62,949	75,775	138,724	(NA)	(NA)	(NA)
1952 <sup>1</sup>	(NA)	(NA)	(NA)	7,377	33,069	6,195	(NA)	25,337	54,406	65,535	119,941	(NA)	(NA)	(NA)
1951 <sup>1</sup>	(NA)	(NA)	(NA)	7,968	32,629	6,880	(NA)	25,646	55,858	72,248	128,106	(NA)	(NA)	(NA)
1950 <sup>1</sup>	(NA)	(NA)	(NA)	7,179	27,555	5,813	(NA)	20,455	46,362	59,246	105,608	(NA)	(NA)	(NA)
1949 <sup>1</sup>	(NA)	(NA)	(NA)	7,158	25,289	5,794	(NA)	19,245	45,354	46,287	91,641	(NA)	(NA)	(NA)
1947 <sup>1</sup>	68	81	(NA)	7,760	24,938	6,747	14,135	20,233	45,876	46,770	92,646	2,285	89	68
1939 <sup>1</sup>	(NA)	53	(NA)	3,591	5,739	2,940	(NA)	4,277	10,249	12,795	23,044	(NA)	(NA)	(NA)
1937 <sup>1</sup>	(NA)	57	(NA)	4,412	7,151	3,902	(NA)	5,804	11,080	16,153	27,233	(NA)	(NA)	(NA)
1935 <sup>1</sup>	(NA)	49	(NA)	3,595	4,609	3,146	(NA)	3,566	7,184	11,049	18,233	(NA)	(NA)	(NA)
1933 <sup>1</sup>	(NA)	60	(NA)	2,508	2,581	2,112	(NA)	1,972	4,870	5,543	10,413	(NA)	(NA)	(NA)
1931 <sup>1</sup>	(NA)	77	(NA)	(NA)	(NA)	2,561	(NA)	3,101	6,247	6,367	12,614	(NA)	(NA)	(NA)
INDUSTRY 3494.—VALVES AND PIPE FITTINGS														
1963 <sup>1</sup>	580	646	374	80,407	500,009	58,148	116,929	321,239	942,700	651,964	1,588,509	38,951	86	85
1962 <sup>1</sup>	(NA)	(NA)	(NA)	81,278	491,448	57,933	116,414	311,696	932,953	655,184	1,570,548	38,351	(NA)	(NA)
1961 <sup>1</sup>	(NA)	(NA)	(NA)	76,358	446,371	54,199	107,417	277,651	820,905	616,418	1,418,545	29,911	(NA)	(NA)
1960 <sup>1</sup>	(NA)	(NA)	(NA)	74,987	424,565	54,205	105,682	273,009	768,973	577,541	1,343,254	32,004	(NA)	(NA)
1959 <sup>1</sup>	(NA)	(NA)	(NA)	75,980	424,354	56,096	110,748	280,416	820,939	573,390	1,357,093	35,066	(NA)	(NA)
1958 <sup>1 2</sup>	549	590	347	76,844	410,225	55,930	110,634	269,608	732,618	512,950	1,263,960	34,108	89	88
1957 <sup>1 2</sup>	(NA)	(NA)	(NA)	80,035	419,524	60,203	121,247	282,034	814,214	614,715	1,414,042	(S)	87	90
1956 <sup>1</sup>	(NA)	(NA)	(NA)	78,644	406,194	62,188	126,282	283,746	800,026	614,723	1,356,185	(S)	(NA)	(NA)
1955 <sup>1</sup>	(NA)	(NA)	(NA)	74,485	355,531	57,929	119,148	250,762	665,292	500,416	1,126,802	(S)	(NA)	(NA)
1954 <sup>1</sup>	523	556	314	75,016	333,213	58,425	115,312	235,730	579,006	416,111	989,463	24,869	85	86
1953 <sup>1</sup>	(NA)	(NA)	(NA)	78,954	348,685	61,658	127,484	252,872	604,376	406,757	1,011,133	(NA)	(NA)	(NA)
1952 <sup>1</sup>	(NA)	(NA)	(NA)	80,068	348,347	63,695	131,294	253,237	614,183	389,375	1,003,558	(NA)	(NA)	(NA)
1951 <sup>1</sup>	(NA)	(NA)	(NA)	81,621	344,441	66,045	139,629	254,000	617,228	399,311	1,016,539	(NA)	(NA)	(NA)
1950 <sup>1</sup>	(NA)	(NA)	(NA)	70,284	261,964	56,786	115,823	188,669	456,915	288,501	745,416	(NA)	(NA)	(NA)
1949 <sup>1</sup>	(NA)	(NA)	(NA)	64,246	219,245	50,941	99,892	153,424	384,740	204,115	588,855	(NA)	(NA)	(NA)
1947 <sup>1</sup>	436	452	(NA)	79,713	237,921	65,522	132,012	183,763	392,090	241,681	633,771	20,877	82	90
1939 <sup>1</sup>	(NA)	298	(NA)	(NA)	(NA)	32,159	(NA)	43,936	107,511	57,416	164,927	(NA)	(NA)	(NA)
INDUSTRY 3496.—COLLAPSIBLE TUBES														
1963 <sup>1</sup>	18	24	19	3,984	18,804	3,540	6,923	14,771	30,562	20,396	51,027	1,925	88	100
1962 <sup>1</sup>	(NA)	(NA)	(NA)	4,062	18,362	3,632	7,222	16,309	28,854	19,172	47,630	2,054	(NA)	(NA)
1961 <sup>1</sup>	(NA)	(NA)	(NA)	4,177	18,058	3,433	7,349	16,204	27,395	20,544	47,977	842	(NA)	(NA)
1960 <sup>1</sup>	(NA)	(NA)	(NA)	3,955	17,539	3,493	7,145	15,616	28,877	19,867	48,625	1,244	(NA)	(NA)
1959 <sup>1</sup>	(NA)	(NA)	(NA)	4,039	17,317	3,563	7,250	15,355	28,443	20,836	48,673	2,060	(NA)	(NA)
1958 <sup>1 2</sup>	18	22	20	3,837	16,118	3,367	6,852	12,453	25,257	19,183	44,700	1,572	91	100
1957 <sup>1 2</sup>	(NA)	(NA)	(NA)	3,673	14,926	3,261	6,467	11,478	23,667	15,710	39,379	1,082	89	100
1956 <sup>1</sup>	(NA)	(NA)	(NA)	4,313	16,399	3,872	7,704	12,936	26,022	16,936	43,014	1,050	(NA)	(NA)
1954 <sup>1</sup>	19	21	18	4,302	14,934	3,856	7,643	11,783	22,429	15,707	38,067	1,369	93	100
1953 <sup>1</sup>	(NA)	(NA)	(NA)	4,082	13,360	3,679	7,114	10,902	20,533	13,877	34,410	(NA)	(NA)	(NA)

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Companies (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital ex- penditures, new (\$1,000)	Spec- ialization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3496.—COLLAPSIBLE TUBES—Continued														
1947.....	19	19	(NA)	3,866	9,415	3,475	6,886	7,205	16,942	10,055	26,997	1,477	91	100
1939.....	(NA)	14	(NA)	2,195	2,695	1,933	(NA)	1,903	4,536	4,936	9,472	(NA)	(NA)	(NA)
1937.....	(NA)	15	(NA)	2,164	2,437	1,983	(NA)	1,872	3,913	5,272	9,185	(NA)	(NA)	(NA)
1935.....	(NA)	16	(NA)	2,138	2,306	1,961	(NA)	1,750	3,539	4,966	8,505	(NA)	(NA)	(NA)
1933.....	(NA)	17	(NA)	1,881	1,735	1,750	(NA)	1,482	3,090	3,834	6,924	(NA)	(NA)	(NA)
1931.....	(NA)	17	(NA)	(NA)	(NA)	1,737	(NA)	1,634	3,492	4,142	7,634	(NA)	(NA)	(NA)
1929.....	(NA)	17	(NA)	1,968	2,429	1,821	(NA)	1,782	3,527	5,386	8,913	(NA)	(NA)	(NA)
1927.....	(NA)	17	(NA)	2,169	2,568	1,984	(NA)	1,918	4,247	7,104	11,351	(NA)	(NA)	(NA)
1925.....	(NA)	16	(NA)	(NA)	(NA)	1,948	(NA)	1,877	3,755	5,694	9,449	(NA)	(NA)	(NA)
1923 <sup>4</sup> .....	(NA)	12	(NA)	1,413	1,448	1,297	(NA)	1,161	2,143	3,047	5,190	(NA)	(NA)	(NA)
INDUSTRY 3497.—METAL FOIL AND LEAF														
1963.....	56	67	40	4,981	32,438	3,733	7,831	21,775	63,486	117,887	180,567	6,410	84	45
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	3,465	23,688	2,410	5,454	15,228	48,912	74,531	120,593	(4,857)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	3,109	20,826	2,226	4,969	13,534	40,248	63,127	102,185	(3,983)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	3,275	20,888	2,369	5,473	13,456	43,125	66,684	109,527	(S)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	3,376	20,839	2,441	5,543	14,239	41,560	70,316	110,071	(S)	(NA)	(NA)
1958 <sup>4</sup> .....	59	66	31	3,500	18,709	2,522	5,149	12,118	38,063	59,165	96,438	3,296	83	52
INDUSTRY 3498.—FABRICATED PIPE AND FITTINGS														
1963.....	328	349	146	13,007	79,087	9,346	18,733	51,671	144,598	161,499	305,640	5,099	92	91
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,090	77,328	8,699	17,768	50,475	130,264	175,325	301,593	3,417	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,841	71,991	8,510	16,977	46,125	136,448	156,314	287,401	(5,225)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,464	77,542	9,738	19,885	50,712	124,256	178,478	304,973	5,224	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,331	77,990	9,706	20,001	50,159	143,401	185,940	327,124	5,494	(NA)	(NA)
1958.....	273	286	136	15,214	84,015	11,139	22,238	55,347	155,621	174,661	329,979	4,103	89	93
1957 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	14,295	78,257	10,900	22,229	52,613	154,887	143,272	287,645	(S)	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,457	68,278	10,285	19,881	47,521	139,233	128,638	257,720	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,495	58,603	9,549	18,291	40,787	104,789	111,255	214,246	(S)	(NA)	(NA)
1954.....	237	250	130	12,670	62,092	9,943	19,352	43,945	122,408	122,283	249,923	4,804	92	88
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,858	64,240	10,368	(NA)	46,801	111,522	98,489	210,011	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,793	62,580	8,974	(NA)	37,813	98,790	87,676	186,466	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,152	51,586	8,998	(NA)	34,538	91,855	88,901	180,756	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,514	38,304	8,236	(NA)	26,795	84,303	74,023	158,326	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,867	37,745	7,427	(NA)	21,868	80,982	61,412	142,394	(NA)	(NA)	(NA)
1947.....	206	212	(NA)	10,568	33,362	8,273	16,781	23,172	58,786	57,190	115,976	4,084	82	83
1939 <sup>4</sup> .....	(NA)	112	(NA)	(NA)	(NA)	2,792	(NA)	3,737	10,842	12,172	23,014	(NA)	(NA)	(NA)
INDUSTRY 3499.—FABRICATED METAL PRODUCTS, N.E.C.														
1963.....	1,254	1,277	346	28,302	151,919	22,209	45,673	105,063	299,326	276,264	573,185	16,189	89	62
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,125	130,817	18,258	39,071	84,439	237,877	238,432	469,200	(16,647)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,237	112,807	15,819	33,798	69,773	204,000	198,831	401,629	10,741	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,527	112,386	17,027	36,160	72,559	199,811	205,925	403,688	12,605	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,027	108,601	17,870	34,058	73,104	212,268	188,031	397,915	(S)	(NA)	(NA)
1958.....	962	974	213	20,200	93,199	15,600	29,845	62,747	180,132	160,374	340,096	11,362	88	62
1957 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	19,087	82,869	15,236	29,002	58,022	169,812	151,655	314,705	8,220	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,683	80,586	15,775	29,841	56,070	165,598	149,018	306,420	10,830	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,277	80,107	16,542	32,243	56,562	158,348	134,687	282,802	(S)	(NA)	(NA)
1954.....	1,017	1,026	183	18,069	68,191	14,556	28,228	47,982	130,687	120,894	254,081	8,088	85	53
1947.....	430	438	(NA)	7,633	21,190	6,377	13,288	15,560	39,967	33,238	73,205	2,028	90	60
1939 <sup>4</sup> .....	(NA)	104	(NA)	(NA)	(NA)	5,097	(NA)	6,802	19,328	13,085	32,413	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Data for Alaska and Hawaii are excluded for years prior to 1958.

<sup>3</sup>A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification, accordingly, the data for 1958-1963 are not comparable with those for earlier years.

<sup>4</sup>No separate figures are available for prior years.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(number)	(\$1,000)	
INDUSTRY 3481.—FABRICATED WIRE PRODUCTS, N.E.C.													
Total.....	1,567	557	55,514	297,626	45,070	92,096	213,329	539,137	490,937	1,030,876	24,795	55,476	439,940
New England.....	146	59	4,375	21,299	3,555	7,790	15,281	36,275	26,332	61,848	1,234	4,972	35,647
Massachusetts....	55	22	1,530	6,848	1,240	2,532	4,909	12,760	11,380	23,507	481	2,219	15,233
Rhode Island.....	14	2	197	1,014	168	348	833	1,904	1,593	3,543	229	138	832
Connecticut.....	71	35	2,614	13,321	2,119	4,857	9,450	21,408	13,236	34,451	519	2,603	19,509
Middle Atlantic....	414	131	13,868	73,701	11,196	22,605	53,463	146,472	113,261	260,568	5,018	14,271	117,298
New York.....	216	59	4,665	23,070	3,745	7,635	16,391	40,957	33,113	73,182	1,350	4,943	34,641
New Jersey.....	90	24	2,935	16,688	2,390	4,628	11,957	35,930	24,581	60,748	871	2,662	25,822
Pennsylvania.....	108	48	6,268	33,943	5,061	10,342	25,115	69,585	55,567	126,638	2,797	6,666	56,835
East North Central.	439	179	21,908	126,272	18,032	36,833	92,148	203,220	186,115	390,014	9,392	22,373	175,216
Ohio.....	101	33	2,588	14,031	2,102	4,264	9,825	25,464	20,193	45,697	930	4,412	39,410
Indiana.....	56	28	3,107	16,389	2,626	5,258	12,578	27,194	25,452	52,574	1,145	2,666	19,950
Illinois.....	168	69	8,528	48,841	7,045	14,143	35,274	74,043	73,241	147,872	3,599	7,456	57,858
Michigan.....	88	41	6,827	42,538	5,553	11,684	31,215	69,283	62,111	131,594	3,013	6,777	46,681
Wisconsin.....	26	8	858	4,473	706	1,484	3,256	7,236	5,118	12,277	705	1,062	11,317
West North Central.	86	36	3,358	17,825	2,654	5,385	11,988	33,576	32,370	65,649	2,017	3,177	27,910
Minnesota.....	21	4	465	2,655	403	858	2,088	4,558	3,394	7,908	205	464	3,668
Iowa.....	12	5	553	2,658	475	935	1,979	4,702	5,519	10,148	463	439	2,415
Missouri.....	36	19	1,951	10,748	1,467	2,985	6,788	20,845	20,208	40,891	1,259	1,922	19,016
Kansas.....	10	7	314	1,385	252	483	934	2,615	2,489	5,056	87	283	2,412
South Atlantic.....	80	28	3,014	12,957	2,445	4,919	8,825	28,448	37,697	65,842	2,290	2,608	22,779
Maryland.....	18	6	1,020	5,166	752	1,461	3,129	14,455	14,236	28,185	1,074	1,152	12,927
North Carolina....	19	11	1,137	3,912	1,005	2,028	3,008	5,725	11,946	17,432	470	856	4,294
Florida.....	29	5	494	2,325	398	863	1,595	4,977	6,405	11,343	344	230	2,443
East South Central.	52	26	2,439	10,613	1,966	4,121	7,032	26,104	23,390	49,024	1,535	1,616	10,872
Tennessee.....	17	10	833	3,234	650	1,378	2,100	6,404	5,931	12,174	153	708	3,372
Alabama.....	17	8	519	2,361	438	936	1,734	7,088	7,506	14,215	401	272	3,730
West South Central.	73	24	1,700	8,030	1,319	2,907	5,601	18,022	25,978	44,224	704	1,724	12,569
Oklahoma.....	13	2	235	1,109	165	339	635	2,951	3,897	7,020	85	435	2,271
Texas.....	51	18	1,339	6,403	1,056	2,324	4,617	13,227	21,100	34,461	576	978	8,220
Mountain.....	26	4	278	1,367	225	448	866	2,589	3,015	5,634	150	196	1,517
Colorado.....	10	2	143	830	109	217	500	1,311	1,467	2,786	79	126	1,076
Pacific.....	251	70	4,574	25,562	3,678	7,088	18,125	44,431	42,779	88,073	2,455	4,539	36,132
Washington.....	20	7	297	1,764	226	434	1,214	3,237	4,160	7,410	98	229	2,653
California.....	212	60	4,071	22,871	3,276	6,391	16,247	39,564	36,996	77,489	2,313	4,205	32,970
INDUSTRY 3491.—METAL BARRELS, DRUMS, AND PAILS													
Total.....	145	93	10,508	66,614	8,480	17,713	49,127	119,617	183,880	303,423	6,412	9,496	96,171
New England.....	6	2	121	722	91	201	456	1,219	2,405	3,635	115	127	885
Middle Atlantic....	38	26	3,015	19,264	2,467	5,255	14,255	35,272	51,621	86,536	1,507	2,472	25,085
New York.....	13	4	417	2,248	362	749	1,852	3,882	6,654	10,373	230	372	2,903
New Jersey.....	13	13	1,921	12,856	1,530	3,220	9,219	23,447	31,569	54,937	1,128	1,272	14,073
Pennsylvania.....	12	9	677	4,160	575	1,286	3,184	7,943	13,398	21,226	149	828	8,109
North Central.....	48	34	4,527	29,576	3,627	7,473	21,561	51,789	68,020	120,625	2,776	4,249	39,016
Ohio.....	15	14	1,571	9,942	1,320	2,498	7,698	15,152	22,912	38,200	808	1,647	13,108
Illinois.....	16	12	2,082	14,768	1,629	3,596	10,485	27,063	34,130	61,037	1,483	2,110	21,857
South Atlantic.....	12	5	229	1,077	202	402	837	2,700	5,017	7,760	62	270	2,967
East South Central.	8	5	276	1,333	236	521	1,039	2,885	6,228	9,028	142	354	3,713
West South Central.	17	11	1,269	8,177	1,011	2,085	6,031	16,631	31,010	47,330	592	1,122	15,062
Texas.....	9	6	709	4,400	562	1,128	3,219	8,830	16,638	25,315	313	571	8,468
West.....	16	10	1,071	6,465	846	1,776	4,948	9,121	19,579	28,509	1,218	902	9,443
California.....	12	9	1,015	6,146	798	1,691	4,698	8,371	18,296	26,484	1,190	879	9,254
INDUSTRY 3492.—SAFES AND VAULTS													
Total.....	32	15	3,346	21,782	2,304	4,817	14,041	56,223	24,269	78,012	1,794	3,495	39,537
Northeast.....	5	2	95	549	64	122	272	1,094	724	1,909	34	208	1,709
North Central, South and West....	27	13	3,251	21,233	2,240	4,695	13,769	55,129	23,545	76,103	1,760	3,287	37,828

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3493.—STEEL SPRINGS													
Total.....	96	49	6,287	41,321	5,110	10,633	31,398	69,305	89,063	157,704	1,962	6,758	54,135
New England.....	8	1	72	434	52	112	295	674	456	1,156	14	( <sup>2</sup> )	( <sup>2</sup> )
Middle Atlantic....	22	16	1,872	12,568	1,543	3,207	9,627	22,894	27,681	50,054	781	2,041	15,329
New York.....	7	4	525	3,889	448	972	3,152	6,665	10,742	17,188	184	439	3,302
East North Central.	34	22	3,591	24,167	2,960	6,175	18,854	38,036	54,842	92,675	1,010	2,526	21,160
Illinois.....	6	3	646	4,210	506	1,036	3,148	6,285	9,696	16,024	316	527	5,365
Michigan.....	17	12	1,629	11,196	1,353	2,876	8,831	19,589	25,577	45,038	343	917	7,327
West North Central.	5	2	77	358	64	128	290	594	541	1,153	7	( <sup>2</sup> )	( <sup>2</sup> )
South.....	9	4	221	1,003	183	390	772	2,280	1,361	3,672	86	( <sup>2</sup> )	( <sup>2</sup> )
Pacific.....	18	4	454	2,791	308	621	1,560	4,827	4,182	8,994	64	449	3,809
California.....	13	3	387	2,396	265	533	1,315	4,076	3,632	7,699	58	376	3,197
INDUSTRY 3494.—VALVES AND PIPE FITTINGS													
Total.....	646	374	80,407	500,009	58,148	116,929	321,239	942,700	651,964	1,588,509	38,951	76,844	732,618
New England.....	68	37	8,730	52,115	5,918	12,120	32,025	88,634	60,439	153,511	4,322	9,594	76,600
Massachusetts....	44	21	5,101	31,101	3,287	6,834	18,134	49,827	36,388	88,039	1,930	5,439	44,434
Connecticut.....	13	9	2,222	12,889	1,573	3,069	8,229	22,702	13,340	38,246	1,854	2,811	19,506
Middle Atlantic....	166	93	18,839	114,081	13,449	26,883	73,654	215,517	130,780	343,832	10,290	16,659	155,842
New York.....	45	21	4,166	23,050	3,164	6,492	16,630	41,279	26,212	66,579	4,331	3,390	31,387
New Jersey.....	50	27	3,951	26,151	2,488	5,085	14,051	49,921	26,022	75,301	1,632	3,357	32,897
Pennsylvania.....	71	45	10,722	64,880	7,797	15,306	42,966	124,317	78,546	201,952	4,327	9,912	91,558
East North Central.	173	113	29,570	191,888	21,707	42,936	124,369	340,905	260,532	596,627	11,838	32,260	300,574
Ohio.....	57	35	9,471	59,070	7,283	14,751	40,419	106,083	68,419	170,878	4,315	8,166	81,059
Indiana.....	22	18	3,767	23,254	2,770	5,301	14,754	45,753	36,981	81,435	1,037	2,945	35,696
Illinois.....	55	35	10,506	70,916	7,430	14,406	44,178	125,129	92,198	218,910	3,650	15,289	136,109
Michigan.....	30	20	4,442	29,354	3,339	6,664	19,535	50,666	50,408	99,071	1,929	( <sup>2</sup> )	( <sup>2</sup> )
Wisconsin.....	9	5	1,384	9,294	885	1,814	5,483	13,274	12,526	26,333	907	( <sup>2</sup> )	( <sup>2</sup> )
West North Central.	28	16	4,724	28,259	3,292	6,925	18,196	73,885	41,279	111,631	1,703	2,844	37,354
Iowa.....	8	5	2,165	13,005	1,470	3,229	8,461	32,305	19,173	51,595	1,123	1,644	21,635
Missouri.....	9	5	1,453	9,213	1,007	2,016	5,511	26,056	10,969	33,635	123	600	5,715
South Atlantic....	24	13	1,530	7,401	1,222	2,487	5,400	12,905	9,008	21,831	688	1,524	13,203
East South Central.	18	11	6,046	34,423	4,983	9,182	25,455	67,425	48,784	115,744	2,618	4,998	50,943
Alabama.....	6	4	2,789	14,758	2,397	4,131	10,910	29,342	15,622	42,704	789	2,294	19,406
West South Central.	64	36	4,580	26,688	3,168	6,642	16,216	57,973	43,199	102,898	1,793	3,935	45,235
Oklahoma.....	16	9	558	3,810	401	898	2,330	7,675	3,786	11,954	243	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	38	22	3,186	19,407	2,155	4,522	11,370	42,420	35,196	77,817	1,410	3,034	35,417
Mountain.....	9	5	619	4,216	414	849	2,271	9,496	8,740	17,426	511	515	5,368
Pacific.....	96	50	5,769	40,938	3,995	8,905	23,653	75,960	49,203	125,009	5,188	4,515	47,499
California.....	88	48	5,607	39,867	3,875	8,653	22,963	74,263	47,183	121,149	5,120	4,394	45,982
INDUSTRY 3496.—COLLAPSIBLE TUBES													
Total.....	24	19	3,984	18,804	3,540	6,923	14,771	30,562	20,396	51,027	1,925	3,837	25,257
Northeast.....	12	11	2,659	12,399	2,380	4,620	9,841	18,603	12,332	30,788	1,445	2,442	15,213
North Central.....	7	4	355	1,532	298	625	1,087	2,860	1,723	4,567	80	300	2,027
South and West.....	5	4	970	4,873	862	1,678	3,843	9,099	6,341	15,672	400	1,095	8,017
INDUSTRY 3497.—METAL FOIL AND LEAF													
Total.....	67	40	4,981	32,438	3,733	7,831	21,775	63,486	117,887	180,567	6,410	3,500	38,063
Middle Atlantic....	26	10	655	4,173	518	1,087	2,851	8,331	13,940	21,815	748	655	6,717
New Jersey.....	11	5	360	2,445	280	597	1,591	5,658	8,186	13,606	651	( <sup>2</sup> )	( <sup>2</sup> )
East North Central.	12	8	1,454	9,867	1,054	2,209	6,358	21,693	34,403	55,823	2,229	1,193	12,694
South.....	9	8	1,417	8,719	1,096	2,331	6,245	17,198	45,633	62,853	2,420	( <sup>2</sup> )	( <sup>2</sup> )
Pacific.....	8	6	560	4,103	360	710	2,176	5,684	8,464	13,839	479	521	6,233
All other divisions	12	8	895	5,576	705	1,494	4,145	10,580	15,447	26,237	534	( <sup>2</sup> )	( <sup>2</sup> )
Connecticut.....	6	4	344	1,881	260	561	1,354	5,402	5,430	10,510	46	( <sup>2</sup> )	( <sup>2</sup> )

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(number)	(\$1,000)	
	INDUSTRY 3498.—FABRICATED PIPES AND FITTINGS												
Total.....	349	146	13,007	79,087	9,346	18,733	51,671	144,598	161,499	305,640	5,099	15,214	155,621
New England.....	20	7	538	2,925	420	823	1,998	5,626	4,477	9,517	120	438	3,839
Massachusetts....	9	3	332	1,685	244	476	1,116	3,609	2,682	5,793	61	( <sup>2</sup> )	( <sup>2</sup> )
Middle Atlantic....	89	45	4,615	28,626	3,066	6,004	16,938	54,670	53,589	106,863	1,535	4,824	63,304
New York.....	23	7	581	2,877	459	951	1,985	6,240	6,264	12,086	103	671	6,862
New Jersey.....	22	14	1,486	9,225	995	2,031	5,351	15,885	16,828	32,039	611	1,727	18,625
Pennsylvania.....	44	24	2,548	16,524	1,612	3,022	9,602	32,545	30,497	62,738	821	2,426	37,817
East North Central.	93	40	3,603	21,554	2,777	5,540	15,197	42,227	46,974	88,978	1,989	5,308	48,851
Ohio.....	29	14	1,834	11,839	1,366	2,705	8,265	25,459	26,411	51,395	795	3,582	39,995
Illinois.....	20	9	447	2,466	370	743	1,863	3,884	6,286	10,377	139	627	5,155
Michigan.....	27	11	844	4,884	655	1,317	3,428	8,352	8,661	17,096	432	683	429
West North Central.	17	4	357	1,552	231	474	1,150	1,052	5,201	8,086	93	1,295	13,392
Missouri.....	12	3	298	1,226	182	376	911	604	4,535	6,993	61	955	10,790
South Atlantic.....	20	10	1,005	6,068	658	1,375	3,456	9,956	10,642	20,668	465	( <sup>2</sup> )	( <sup>2</sup> )
Florida.....	6	2	131	666	102	184	353	1,189	2,150	3,346	62	121	642
East South Central.	6	2	66	354	55	107	258	393	795	1,168	2	( <sup>2</sup> )	( <sup>2</sup> )
West South Central.	45	19	1,519	9,750	1,206	2,501	7,076	15,041	23,405	38,447	396	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	40	18	1,435	9,280	1,138	2,378	6,733	14,373	22,709	37,063	345	1,019	8,312
West.....	59	19	1,304	8,258	933	1,909	5,598	15,633	16,416	31,913	499	1,156	10,983
California.....	45	14	921	6,147	697	1,467	4,148	12,162	12,511	24,588	258	949	8,860
	INDUSTRY 3499.—FABRICATED METAL PRODUCTS, N.E.C.												
Total.....	1,277	346	28,302	151,919	22,209	45,673	105,063	299,326	276,264	573,185	16,189	20,200	180,132
New England.....	101	28	2,359	12,966	1,800	3,751	8,194	22,280	16,590	38,665	1,203	1,812	13,844
Massachusetts....	52	12	939	5,537	729	1,487	3,445	9,588	7,480	16,774	437	866	7,878
Rhode Island.....	14	3	559	2,780	381	827	1,504	5,085	2,460	7,546	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Connecticut.....	29	12	751	4,145	601	1,249	2,879	6,622	6,171	12,773	249	526	3,675
Middle Atlantic....	369	99	6,736	33,281	5,374	10,957	23,243	62,354	59,596	123,339	2,183	4,573	36,192
New York.....	221	56	3,595	17,927	2,916	5,913	12,713	33,926	30,731	65,684	992	2,944	22,568
New Jersey.....	67	15	1,157	6,268	874	1,828	4,196	11,167	8,480	19,970	469	639	4,774
Pennsylvania.....	81	28	1,984	9,086	1,584	3,216	6,334	17,261	20,385	37,685	722	990	8,850
East North Central.	340	114	11,535	65,547	9,013	18,533	45,868	127,806	117,772	244,936	8,281	9,544	89,765
Ohio.....	69	26	1,859	10,421	1,333	2,760	6,804	19,090	21,026	40,235	832	1,517	13,328
Indiana.....	27	11	1,473	8,765	1,120	2,354	6,288	15,754	12,261	27,825	733	2,132	16,893
Illinois.....	142	42	4,783	26,196	3,873	7,834	18,970	58,364	55,812	113,524	5,397	4,037	42,284
Michigan.....	79	27	2,952	17,754	2,322	4,841	12,205	29,764	24,295	54,161	1,107	( <sup>2</sup> )	( <sup>2</sup> )
Wisconsin.....	23	8	468	2,411	365	744	1,601	4,834	4,378	9,191	212	( <sup>2</sup> )	( <sup>2</sup> )
West North Central.	84	23	1,955	10,919	1,473	3,024	7,218	19,648	21,483	40,968	1,151	732	6,816
Minnesota.....	29	10	875	5,196	690	1,407	3,683	9,240	9,157	18,480	594	( <sup>2</sup> )	( <sup>2</sup> )
Iowa.....	11	3	155	930	111	222	486	1,472	1,069	2,592	68	( <sup>2</sup> )	( <sup>2</sup> )
South Atlantic.....	91	22	1,724	8,418	1,398	3,019	6,025	26,424	28,049	53,937	1,100	1,945	21,637
Maryland.....	17	7	647	3,443	538	1,183	2,480	10,523	11,861	22,422	398	601	10,164
Georgia.....	12	1	254	979	226	516	768	1,555	2,081	3,617	36	( <sup>2</sup> )	( <sup>2</sup> )
Florida.....	35	5	300	1,389	221	458	907	2,643	2,516	5,237	69	995	6,513
East South Central.	24	11	474	2,120	400	795	1,600	5,333	3,455	7,208	361	182	1,166
Kentucky.....	13	7	312	1,511	269	560	1,139	4,112	2,156	4,722	323	( <sup>2</sup> )	( <sup>2</sup> )
West South Central.	63	15	996	4,619	846	1,744	3,574	7,486	7,413	15,071	499	281	1,570
Louisiana.....	6	3	105	415	82	157	250	1,145	1,132	2,290	72	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	38	7	453	2,382	371	771	1,832	2,829	2,733	5,753	135	162	1,066
West.....	205	34	2,523	14,049	1,905	3,850	9,341	27,995	21,906	49,061	1,411	1,131	9,142
Colorado.....	9	1	119	668	96	192	526	1,690	1,648	3,287	54	( <sup>2</sup> )	( <sup>2</sup> )
California.....	157	29	2,129	12,105	1,585	3,211	7,831	23,931	18,349	41,496	1,193	949	7,666

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

Footnotes continued on next page.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Footnotes to Table 2-34E—Continued

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3481, Fabricated Wire Products, N.E.C.: New England—Maine, 2 (1-19); New Hampshire, 2 (1-19); Vermont, 2 (1-19); West North Central—North Dakota, 1 (1-19); Nebraska, 6 (20-99); South Atlantic—Delaware, 1 (20-99); Virginia, 3 (164); West Virginia, 1 (20-99); South Carolina, 2 (1-19); East South Central—Kentucky, 10 (500-999); Mississippi, 8 (250-499); West South Central—Arkansas, 4 (20-99); Louisiana, 5 (20-99); Mountain—New Mexico, 1 (1-19); Arizona, 11 (100-249); Utah, 4 (20-99); Pacific—Oregon, 17 (100-249); Hawaii, 2 (20-99).

SIC 3491, Metal Barrels, Drums, and Pails: New England—Massachusetts, 4 (20-99); Connecticut, 2 (20-99); East North Central—Indiana, 1 (100-249); Michigan, 4 (20-99); Wisconsin, 4 (100-249); West North Central—Minnesota, 2 (100-249); Iowa, 2 (20-99); Missouri, 2 (20-99); Kansas, 2 (100-249); South Atlantic—Maryland, 1 (20-99); West Virginia, 4 (20-99); South Carolina, 1 (1-19); Georgia, 4 (20-99); Florida, 2 (20-99); East South Central—Tennessee, 1 (20-99); Alabama, 5 (100-249); Mississippi, 2 (1-19); West South Central—Louisiana, 6 (500-999); Oklahoma, 2 (1-19); Mountain—Colorado, 2 (1-19); Pacific—Washington, 1 (1-19); Oregon, 1 (1-19).

SIC 3492, Safes and Vaults: New England—Connecticut, 1 (1-19); Middle Atlantic—New York, 3 (20-99); Pennsylvania, 1 (20-99); East North Central—Ohio, 9 (2,911); Indiana, 3 (100-249); Illinois, 2 (1-19); South Atlantic—Florida, 1 (1-19); West South Central—Texas, 2 (20-99); Pacific—California, 10 (179).

SIC 3493, Steel Springs: New England—Vermont, 1 (1-19); Massachusetts, 2 (20-99); Connecticut, 5 (20-99); Middle Atlantic—New Jersey, 1 (1-19); Pennsylvania, 14 (1,000-2,499); East North Central—Ohio, 7 (742); Indiana, 4 (574); West North Central—Minnesota, 1 (1-19); Iowa, 1 (20-99); Missouri, 3 (20-99); South Atlantic—North Carolina, 1 (1-19); Florida, 1 (1-19); East South Central—Mississippi, 1 (100-249); West South Central—Texas, 6 (101); Pacific—Washington, 3 (20-99); Oregon, 1 (20-99); Hawaii, 1 (1-19).

SIC 3494, Valves and Pipe Fittings: New England—Maine, 2 (20-99); New Hampshire, 1 (100-249); Rhode Island, 8 (1,000-2,400); West North Central—Minnesota, 5 (645); Nebraska, 2 (250-499); Kansas, 4 (100-249); South Atlantic—Delaware, 2 (100-249); Maryland, 2 (20-99); Virginia, 3 (154); West Virginia, 2 (250-499); North Carolina, 4 (250-499); Georgia, 2 (250-499); Florida, 9 (152); East South Central—Kentucky, 6 (2,037); Tennessee, 6 (1,220); West South Central—Arkansas, 8 (250-499); Louisiana, 2 (500-999); Mountain—Wyoming, 1 (1-19); Colorado, 6 (566); Arizona, 1 (1-19); Utah, 1 (20-99); Pacific—Washington, 4 (1-19); Oregon, 4 (100-249).

SIC 3496, Collapsible Tubes: New England—Rhode Island, 1 (20-99); Connecticut, 1 (500-999); Middle Atlantic—New York, 1 (1-19); New Jersey, 7 (1,000-2,499); Pennsylvania, 2 (250-499); East North Central—Ohio, 1 (1-19); Indiana, 1 (20-99); Illinois, 1 (100-249); Michigan, 2 (20-99); Wisconsin, 1 (1-19); West North Central—Iowa, 1 (20-99); South Atlantic—West Virginia, 1 (500-999); East South Central—Kentucky, 1 (100-249); West South Central—Arkansas, 1 (100-249); Pacific—California, 2 (20-99).

SIC 3497, Metal Foil and Leaf: New England—Vermont, 2 (20-99); Massachusetts, 3 (116); Middle Atlantic—New York, 13 (250-499); Pennsylvania, 2 (20-99); East North Central—Ohio, 3 (500-999); Indiana, 1 (100-249); Illinois, 8 (577); West North Central—Missouri, 1 (250-499); South Atlantic—Maryland, 1 (20-99); Virginia, 2 (500-999); North Carolina, 1 (20-99); East South Central—Kentucky, 4 (500-999); West South Central—Texas, 1 (1-19); Pacific—Washington, 1 (1-19); California, 7 (500-999).

SIC 3498, Fabricated Pipes and Fittings: New England—Maine, 2 (20-99); Rhode Island, 1 (20-99); Connecticut, 8 (100-249); East North Central—Indiana, 6 (231); Wisconsin, 11 (247); West North Central—Minnesota, 1 (20-99); Iowa, 1 (1-19); Nebraska, 1 (1-19); Kansas, 2 (20-99); South Atlantic—Delaware, 2 (100-249); Maryland, 2 (20-99); Virginia, 2 (1-19); West Virginia, 1 (250-499); North Carolina, 4 (202); South Carolina, 1 (20-99); Georgia, 2 (20-99); East South Central—Tennessee, 2 (20-99); Alabama, 1 (20-99); Mississippi, 3 (1-19); West South Central—Louisiana, 2 (1-19); Oklahoma, 3 (20-99); Mountain—Colorado, 1 (20-99); New Mexico, 1 (1-19); Arizona, 1 (1-19); Pacific—Washington, 5 (20-99); Oregon, 6 (250-499).

SIC 3499, Fabricated Metal Products, N.E.C.: New England—Maine, 2 (20-99); New Hampshire, 3 (20-99); Vermont, 1 (1-19); West North Central—Missouri, 9 (814); North Dakota, 1 (1-19); South Dakota, 2 (1-19); Nebraska, 3 (1-19); Kansas, 12 (20-99); South Atlantic—District of Columbia, 1 (1-19); Virginia, 9 (20-99); West Virginia, 5 (163); North Carolina, 6 (122); South Carolina, 6 (100-249); East South Central—Tennessee, 5 (20-99); Alabama, 5 (20-99); Mississippi, 1 (1-19); West South Central—Arkansas, 7 (318); Oklahoma, 12 (120); Mountain—Montana, 2 (1-19); Idaho, 1 (1-19); Wyoming, 2 (1-19); New Mexico, 1 (1-19); Arizona, 6 (100-249); Utah, 3 (1-19); Nevada, 2 (1-19); Pacific—Washington, 9 (20-99); Oregon, 12 (20-99); Hawaii, 1 (1-19).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

TABLE 3. Detailed Statistics: 1963

Item	Fabricated wire products, n.e.c. (SIC 3481)	Metal barrels, drums, and pails (SIC 3491)	Safes and vaults (SIC 3492)	Steel springs / (SIC 3493)	Valves and pipe fittings (SIC 3494)	Collapsible tubes (SIC 3496)	Metal foil and leaf (SIC 3497)	Fabricated pipe and fittings (SIC 3498)	Fabricated metal products, n.e.c. (SIC 3499)
Primary product specialization ratio <sup>1</sup> .....	.93	.92	.81	.91	.86	.88	.84	.92	.89
Coverage ratio <sup>2</sup> .....	.65	.86	.90-.95	.67	.85	1.00	.45	.91	.62
Establishments, total.....number..	1,567	145	32	96	646	24	67	349	1,277
With 1 to 19 employees.....do....	1,010	52	17	47	272	5	27	203	931
With 20 to 99 employees.....do....	415	56	12	30	192	9	28	113	304
With 100 employees or more.....do....	142	37	3	19	182	10	12	33	42
Proprietors and working partners.....do....	1,407	46	27	61	283	6	24	248	1,152
All employees (average for the year).....do....	55,514	10,508	3,346	6,287	80,407	3,984	4,981	13,007	28,302
Payroll (all employees), total for year.....\$1,000..	297,626	66,614	21,782	41,321	500,009	18,804	32,438	79,087	151,919
Production workers:									
Average for the year.....number..	45,070	8,480	2,304	5,110	58,148	3,540	3,733	9,346	22,209
March.....do....	44,576	8,352	2,219	5,084	57,745	3,413	3,553	9,144	21,792
May.....do....	45,127	8,570	2,213	5,234	58,100	3,463	3,745	9,475	21,977
August.....do....	44,857	8,776	2,343	5,007	59,377	3,591	3,769	9,618	22,460
November.....do....	46,091	8,218	2,446	5,112	57,362	3,690	3,849	9,183	22,659
Man-hours.....1,000..	92,096	17,713	4,817	10,633	116,929	6,923	7,831	18,733	45,673
January-March.....do....	22,353	4,323	1,254	2,650	29,178	1,688	1,879	4,534	11,131
April-June.....do....	23,061	4,606	1,178	2,730	29,767	1,760	1,945	4,760	11,462
July-September.....do....	22,709	4,537	1,223	2,554	28,430	1,642	1,994	4,752	11,260
October-December.....do....	23,973	4,259	1,169	2,704	29,554	1,834	2,017	4,687	11,820
Wages.....\$1,000..	213,329	49,127	14,041	31,398	321,239	14,771	21,775	51,671	105,063
Cost of materials, etc., total.....do....	490,937	183,880	24,269	89,063	651,964	20,396	117,887	161,499	276,264
Materials, parts, containers, and supplies consumed.....do....	433,668	176,034	20,169	82,268	569,770	19,336	114,843	141,679	235,976
Cost of resales.....do....	29,104	2,761	3,549	3,113	40,691	303	770	13,674	22,498
Fuels consumed.....do....	3,649	1,695	186	1,948	7,873	268	522	1,091	2,034
Electric energy:									
Purchased:									
Quantity.....million kw.-hrs..	338	122	17	67	670	35	80	79	231
Cost.....\$1,000..	5,712	1,980	241	972	9,966	487	1,011	1,409	3,747
Generated less sold.....million kw.-hrs..	(D)	-	-	-	(D)	-	-	(D)	(D)
Contract work.....\$1,000..	18,804	1,410	124	762	23,664	2	741	3,646	12,009
Value of shipments (including resales), total.....do....	1,030,876	303,423	78,012	157,704	1,588,509	51,027	180,567	305,640	573,185
Value of resales.....do....	38,362	3,031	4,830	5,063	46,558	341	871	15,292	31,643
Value added by manufacture, adjusted.....do....	539,137	119,617	56,223	69,305	942,700	30,562	63,486	144,598	299,326
Manufacturers' inventories:									
Beginning of year, total.....do....	150,688	49,433	13,300	19,526	381,082	4,954	25,122	70,374	87,180
Finished products.....do....	59,365	7,589	4,596	3,026	155,678	1,937	8,197	25,196	28,906
Work-in-process.....do....	28,830	6,025	3,860	5,414	138,683	669	5,093	12,571	21,930
Materials, supplies, fuel, etc.....do....	62,493	35,819	4,844	11,086	86,721	2,348	11,832	32,607	36,344
End of year, total.....do....	150,692	49,513	15,714	21,061	385,426	5,033	28,737	69,813	91,556
Finished products.....do....	59,541	7,555	5,546	3,419	161,618	1,900	8,981	24,499	31,326
Work-in-process.....do....	28,352	6,133	5,390	5,685	138,898	637	5,115	13,725	21,915
Materials, supplies, fuel, etc.....do....	62,799	35,825	4,778	11,957	84,912	2,496	14,641	31,589	38,315
Expenditures for plant and equipment, total.....do....	27,675	7,614	1,958	2,162	44,610	2,008	6,473	6,381	18,182
New, total.....do....	24,795	6,412	1,794	1,962	38,951	1,925	6,410	5,099	16,189
New structures and additions to plant.....do....	6,036	825	774	292	11,262	415	1,164	1,197	5,228
New machinery and equipment.....do....	18,759	5,587	1,020	1,670	27,689	1,510	5,246	3,902	10,961
Used plant and equipment.....do....	2,880	1,202	164	200	5,659	83	63	1,282	1,993
Selected operating ratios:									
Payroll/Total employment.....	5,343	6,339	6,510	6,572	6,218	4,720	6,512	6,071	5,368
Production workers/Total employment.....	.81	.81	.69	.81	.72	.89	.75	.72	.78
Man-hours/Production workers.....	2,043	2,089	2,091	2,081	2,011	1,956	2,098	2,004	2,057
Production worker wages/Man-hours.....	2.32	2.77	2.91	2.95	2.75	2.13	2.78	2.76	2.30
Cost of materials and payrolls/Total value of shipments.....	.76	.83	.59	.83	.73	.77	.83	.79	.75
Cost of materials/Total value of shipments.....	.48	.61	.31	.56	.41	.40	.65	.53	.48
Adjusted value added/Total employment.....	9,712	11,383	16,803	11,024	11,719	7,671	12,746	11,100	10,576
Salaries and wages/Adjusted value added.....	.55	.56	.39	.60	.53	.62	.51	.55	.51

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. (See Introduction for an explanation of terms used.)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3481.—FABRICATED METAL PRODUCTS, N.E.C.											
Establishments.....number..	1,567	517	250	243	281	134	109	24	9	-	-
All employees:											
Total.....do.....	55,514	1,009	1,701	3,326	8,759	9,127	16,423	8,425	6,744	-	-
Payroll.....\$1,000..	297,626	5,230	7,850	15,338	43,034	46,168	87,408	49,759	42,839	-	-
Value added, adjusted.....do....	539,137	10,481	20,396	28,371	80,125	82,194	155,199	98,424	63,947	-	-
Value of shipments.....do....	1,030,876	20,632	35,374	53,333	158,759	165,949	298,764	183,801	114,264	-	-
Capital expenditures, new...do....	24,795	1,112	1,113	1,294	3,984	3,163	7,263	4,593	2,273	-	-
INDUSTRY 3491.—METAL BARRELS, DRUMS, AND PAILS											
Establishments.....number..	145	22	14	16	27	29	31	6	-	-	-
All employees:											
Total.....do.....	10,508	40	96	233	863	2,095	5,109	2,072	-	-	-
Payroll.....\$1,000..	66,614	185	402	1,227	4,480	12,431	33,515	14,374	-	-	-
Value added, adjusted.....do....	119,617	354	740	2,652	8,951	22,488	63,023	21,409	-	-	-
Value of shipments.....do....	303,423	921	2,217	7,136	25,683	69,505	147,900	50,061	-	-	-
Capital expenditures, new...do....	6,412	15	33	151	564	1,482	3,149	1,018	-	-	-
INDUSTRY 3492.—SAFES AND VAULTS											
Establishments.....number..	32	10	4	3	8	4	1	-	-	2	-
All employees:											
Total.....do.....	3,346	12	25	3,309	(D)	(D)	(D)	-	-	(D)	-
Payroll.....\$1,000..	21,782	90	152	21,540	(D)	(D)	(D)	-	-	(D)	-
Value added, adjusted.....do....	56,223	214	358	55,651	(D)	(D)	(D)	-	-	(D)	-
Value of shipments.....do....	78,012	358	531	77,123	(D)	(D)	(D)	-	-	(D)	-
Capital expenditures, new...do....	1,794	6	18	1,770	(D)	(D)	(D)	-	-	(D)	-
INDUSTRY 3493.—STEEL SPRINGS											
Establishments.....number..	96	19	10	18	19	11	14	3	2	-	-
All employees:											
Total.....do.....	6,287	22	73	251	587	749	2,307	2,298	(D)	-	-
Payroll.....\$1,000..	41,321	137	387	1,593	3,344	4,849	14,967	16,044	(D)	-	-
Value added, adjusted.....do....	69,305	259	822	2,945	6,161	8,918	24,718	25,482	(D)	-	-
Value of shipments.....do....	157,704	415	1,693	4,909	10,419	16,472	59,963	63,833	(D)	-	-
Capital expenditures, new...do....	1,962	8	9	37	113	371	1,011	413	(D)	-	-
INDUSTRY 3494.—VALVES AND PIPE FITTINGS											
Establishments.....number..	646	105	70	97	108	84	92	49	30	11	-
All employees:											
Total.....do.....	80,407	157	481	1,392	3,601	6,025	14,662	17,137	21,136	15,816	-
Payroll.....\$1,000..	500,009	895	2,798	8,102	21,326	35,636	87,790	107,960	135,944	99,558	-
Value added, adjusted.....do....	942,700	1,942	5,127	17,318	40,924	70,205	176,765	200,320	254,467	175,632	-
Value of shipments.....do....	1,588,509	3,561	9,753	29,771	75,176	124,931	322,349	325,887	417,370	279,721	-
Capital expenditures, new...do....	38,951	1,795	213	603	2,244	2,717	9,052	7,699	8,893	6,735	-
INDUSTRY 3496.—COLLAPSIBLE TUBES											
Establishments.....number..	24	4	-	1	4	5	5	1	4	-	-
All employees:											
Total.....do.....	3,984	16	-	(D)	166	391	1,243	(D)	2,168	-	-
Payroll.....\$1,000..	18,804	45	-	(D)	680	1,870	5,685	(D)	10,524	-	-
Value added, adjusted.....do....	30,562	79	-	(D)	1,310	2,693	9,559	(D)	16,921	-	-
Value of shipments.....do....	51,027	165	-	(D)	2,050	4,773	16,428	(D)	27,611	-	-
Capital expenditures, new...do....	1,925	27	-	(D)	(D)	97	704	(D)	1,097	-	-

See footnotes at end of table.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963—Continued

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3497.—METAL FOIL AND LEAF											
Establishments.....number..	67	10	9	8	16	12	6	5	1	-	-
All employees:											
Total.....do....	4,981	14	65	114	479	915	867	<u>2,527</u>	(D)	-	-
Payroll.....\$1,000..	32,438	75	402	670	2,926	5,432	5,888	<u>17,045</u>	(D)	-	-
Value added, adjusted.....do....	63,486	164	974	1,760	7,011	9,328	12,732	<u>31,517</u>	(D)	-	-
Value of shipments.....do....	180,567	594	3,011	4,962	18,869	23,493	28,860	<u>100,778</u>	(D)	-	-
Capital expenditures, new...do....	6,410	14	13	120	738	696	512	<u>4,317</u>	(D)	-	-
INDUSTRY 3498.—FABRICATED PIPE AND FITTINGS											
Establishments.....number..	349	92	51	60	80	33	25	5	3	-	-
All employees:											
Total.....do....	13,007	124	355	806	2,488	2,286	3,774	1,486	1,688	-	-
Payroll.....\$1,000..	79,077	981	2,022	4,528	13,676	13,434	24,370	9,634	10,442	-	-
Value added, adjusted.....do....	144,599	1,782	4,517	8,071	24,708	25,962	42,992	16,763	19,803	-	-
Value of shipments.....do....	305,640	4,006	7,635	16,684	62,705	52,000	84,711	39,315	38,584	-	-
Capital expenditures, new...do....	5,099	84	141	292	1,236	589	1,790	525	442	-	-
INDUSTRY 3499.—FABRICATED METAL PRODUCTS, N.E.C.											
Establishments.....number..	1,277	469	222	240	211	93	31	8	3	-	-
All employees:											
Total.....do....	28,302	873	1,516	3,285	6,427	6,443	5,099	2,773	1,886	-	-
Payroll.....\$1,000..	151,919	3,767	7,234	17,237	32,771	36,274	26,490	16,647	11,499	-	-
Value added, adjusted.....do....	299,326	8,473	14,062	32,824	59,818	86,447	48,509	28,099	21,094	-	-
Value of shipments.....do....	573,185	16,300	25,628	59,913	114,460	171,145	99,986	54,058	31,695	-	-
Capital expenditures, new...do....	16,189	<sup>2</sup> 3,237	801	1,841	2,923	2,823	1,507	2,059	998	-	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

n.e.c. Not elsewhere classified.

<sup>1</sup>Includes capital expenditures for plants under construction but not in operation which constitute \$500-\$1,000 thousand of the total for the size class.<sup>2</sup>Includes capital expenditures for plants under construction but not in operation which constitute \$2-\$5 million of the total for the size class.



TABLE 5A. **Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3481	Fabricated wire products, n.e.c...1963..	1,030,876	903,884	71,099	55,893	93	1,399,261	903,884	495,377	65
	1958..	874,923	744,522	69,588	60,813	91	1,164,232	744,522	419,710	64
3491	Metal barrels, drums, and pails...1963..	303,423	274,551	22,966	5,906	92	317,873	274,551	43,322	86
	1958..	250,256	222,581	18,974	8,701	92	258,953	222,581	36,372	86
3492	Safes and vaults.....1963..	78,012	(D)	(D)	(D)	81	59,328	(D)	(D)	90-95
	1958..	58,790	43,680	9,630	5,480	82	45,088	43,680	1,408	97
3493	Steel springs.....1963..	157,704	136,509	14,161	7,034	91	205,235	136,509	68,726	67
	1958..	120,525	91,489	21,908	7,128	81	133,143	91,489	41,654	69
3494	Valves and pipe fittings.....1963..	1,588,509	1,299,931	214,195	74,383	86	1,525,399	1,299,931	225,468	85
	1958..	1,263,960	1,050,020	143,878	70,062	88	1,193,012	1,050,020	142,992	88
3496	Collapsible tubes.....1963..	51,027	44,216	5,920	891	88	44,216	44,216	-	100
	1958..	44,700	37,172	3,675	3,853	91	37,172	37,172	-	100
3497	Metal foil and leaf.....1963..	180,567	147,352	28,555	4,660	84	329,930	147,352	182,578	45
	1958..	96,438	76,419	15,516	4,503	83	145,484	76,419	69,065	52
3498	Fabricated pipe and fittings.....1963..	305,640	259,647	21,129	24,864	92	286,525	259,647	26,889	91
	1958..	329,979	246,957	29,540	53,482	89	265,378	246,957	18,421	93
3499	Fabricated metal products, n.e.c...1963..	573,185	469,193	60,295	43,697	89	753,371	469,193	284,178	62
	1958..	340,096	273,386	38,303	28,407	88	443,638	273,386	170,252	62

NOTE: See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>Included in this industry are selected fabricated wire products (see footnotes 3,7,10, and 12 in table 5B) which are also primary to industry 3315, Steel Wire Drawing, Etc. A coverage ratio computed on the basis of including both industries to which these products are primary would total 79 percent; 65 percent by industry 3481 and 14 percent by industry 3315. The remaining 21 percent was shipped by establishments in other industries, including industry 3312, Blast Furnaces and Steel Mills, and industry 3357, Nonferrous Wire Drawing, Etc.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)

miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Fabricated wire products, n.e.c. (SIC 3481)	Blast furnaces and steel mills (SIC 3312)	Steel wire drawing, etc. (SIC 3315)	Nonferrous wire drawing, etc. (SIC 3357)	Steel springs (SIC 3493)	Other industries <sup>1</sup>
FABRICATED WIRE PRODUCTS, N.E.C.								
	Total shipments and receipts of the industry.....	(X)	1,030,876	(X)	(X)	(X)	(X)	(X)
	Primary products.....	1,399,261	903,884	(D)	186,029	(D)	(D)	309,348
34811	Noninsulated ferrous wire rope, cable and strand not produced by wire drawers.....	<sup>2</sup> 189,934	82,619	33,207	67,739	(D)	-	<sup>3</sup> 6,369
34812	Precision mechanical springs.....	149,985	129,077	(D)	(D)	(D)	6,524	<sup>4</sup> 14,384
34813	Other wire springs.....	239,498	208,323	(D)	(D)	(D)	(D)	<sup>5</sup> 31,175
34814	Ferrous wire cloth and other woven ferrous wire products, not produced by wire drawers.....	<sup>6</sup> 72,328	38,767	10,466	13,851	2,826	-	<sup>7</sup> 6,418
34815	Nonferrous wire cloth and other woven nonferrous wire products, not made by wire drawers.....	<sup>8</sup> 70,487	44,093	-	(D)	21,231	-	<sup>9</sup> 5,163
34816	Fencing and fence gates, not produced by wire drawers.....	<sup>10</sup> 115,480	53,218	42,201	16,130	(D)	-	<sup>11</sup> 3,931
34819	Other fabricated wire products, not produced by wire drawers.....	<sup>11</sup> 501,529	288,070	103,666	77,894	(D)	-	<sup>12</sup> 31,899
34810	Miscellaneous fabricated wire products, n.s.k.....	60,020	59,717	-	-	-	(D)	303
	Secondary products.....	(X)	71,099	(X)	(X)	(X)	(X)	(X)
25144	Other metal household furniture.....	(X)	3,384	(X)	(X)	(X)	(X)	(X)
3429-	Hardware, n.e.c.....	(X)	2,973	(X)	(X)	(X)	(X)	(X)
34612	Job stampings, except automotive.....	(X)	5,762	(X)	(X)	(X)	(X)	(X)
34930	Steel springs.....	(X)	15,793	(X)	(X)	(X)	(X)	(X)
	Other secondary products.....	(X)	43,187	(X)	(X)	(X)	(X)	(X)
	Miscellaneous receipts.....	(X)	55,893	(X)	(X)	(X)	(X)	(X)
	Receipts for contract work.....	(X)	4,022	(X)	(X)	(X)	(X)	(X)
	Receipts for installation.....	(X)	4,788	(X)	(X)	(X)	(X)	(X)
	Sale of products bought and resold.....	(X)	38,362	(X)	(X)	(X)	(X)	(X)
	All other receipts.....	(X)	8,721	(X)	(X)	(X)	(X)	(X)

Prod. class code	Class of products and miscellaneous receipts	All industries	Metal barrels, drums, and pails (SIC 3491)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Safes and vaults (SIC 3492)	Other industries
METAL BARRELS, DRUMS, AND PAILS INDUSTRY					SAFES AND VAULTS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	303,423	(X)	34920	Total shipments and receipts of the industry.....	(X)	78,012	(X)
	Primary products.....	317,873	274,551	43,322		Safes and vaults.....	59,328	(D)	(D)
34911	Steel shipping pails (to 12 gallon capacity).....	87,186	66,448	<sup>13</sup> 20,738		Secondary products.....	(X)	(D)	(X)
34912	Steel shipping barrels and drums (over 12 gallon capacity), except beer barrels.....	191,501	177,814	<sup>14</sup> 13,687		Miscellaneous receipts.....	(X)	(D)	(X)
34913	All other metal barrels, including beer barrels and fluid milk shipping containers.....	35,887	26,990	<sup>15</sup> 8,897					
34910	Metal barrels, drums, and pails, n.s.k.....	3,299	3,299	-		STEEL SPRING INDUSTRY			
	Secondary products.....	(X)	22,966	(X)	34930	Total shipments and receipts of the industry.....	(X)	157,704	(X)
34110	Metal cans.....	(X)	6,643	(X)		Steel springs.....	205,235	136,509	<sup>17</sup> 68,726
	All other secondary products.....	(X)	<sup>16</sup> 16,323	(X)	34812	Secondary products.....	(X)	14,161	(X)
	Miscellaneous receipts.....	(X)	5,906	(X)		Precision mechanical springs.....	(X)	6,524	(X)
	Sale of products bought and resold.....	(X)	3,031	(X)		All other products.....	(X)	7,637	(X)
	All other receipts.....	(X)	2,875	(X)		Miscellaneous receipts.....	(X)	7,034	(X)
						Sale of products bought and resold.....	(X)	1,795	(X)
						All other receipts.....	(X)	5,239	(X)

See footnotes at end of table.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Valves and pipe fittings (SIC 3494)	Oil field machinery (SIC 3533)	Pumps and compressors (SIC 3561)	Mechanical measuring devices (SIC 3821)	Automatic temperature controls (SIC 3822)	Other industries <sup>1</sup>
VALVES AND PIPE FITTINGS INDUSTRY								
	Total shipments and receipts of the industry.....	(X)	1,588,509	(X)	(X)	(X)	(X)	(X)
	Primary products.....	1,525,399	1,299,931	4,868	34,017	(D)	(D)	186,583
34941	Metal valves for piping systems (except plumbing and heating valves).....	686,096	614,923	4,868	6,802	8,305	8,794	<sup>18</sup> 42,404
34942	Metal fittings and unions for piping systems.....	421,664	370,592	-	(D)	(D)	-	50,072
34943	Plumbing and heating valves, and specialties, except plumbers' brass goods.....	87,860	69,027	-	(D)	(D)	(D)	<sup>19</sup> 18,833
34944	Other metal valves and fittings, except plumbers' brass goods.....	303,319	220,553	-	21,988	(D)	(D)	60,778
34940	Valves and pipe fittings, n.s.k.....	26,460	24,836	-	-	-	-	1,624
	Secondary products.....	(X)	214,195	(X)	(X)	(X)	(X)	(X)
3069-	Fabricated rubber products, n.e.c.....	(X)	4,097	(X)	(X)	(X)	(X)	(X)
33214	All other gray iron castings.....	(X)	2,207	(X)	(X)	(X)	(X)	(X)
33220	Malleable iron castings.....	(X)	2,209	(X)	(X)	(X)	(X)	(X)
33690	Nonferrous castings, n.e.c.....	(X)	2,346	(X)	(X)	(X)	(X)	(X)
34295	Other hardware.....	(X)	4,062	(X)	(X)	(X)	(X)	(X)
34320	Plumbing fixture fittings and trim brass goods.....	(X)	10,814	(X)	(X)	(X)	(X)	(X)
3443-	Fabricated plate work.....	(X)	6,518	(X)	(X)	(X)	(X)	(X)
34980	Fabricated pipe and fittings.....	(X)	3,691	(X)	(X)	(X)	(X)	(X)
34990	Fabricated metal products, n.e.c.....	(X)	6,044	(X)	(X)	(X)	(X)	(X)
35611	Industrial pumps, except hydraulic fluid power.....	(X)	3,928	(X)	(X)	(X)	(X)	(X)
35615	Pumps and compressors, n.e.c., except refrigeration compressors....	(X)	2,147	(X)	(X)	(X)	(X)	(X)
35690	General industrial machinery, n.e.c.....	(X)	7,539	(X)	(X)	(X)	(X)	(X)
35857	Other refrigeration and air-conditioning equipment, including soda fountain and beer dispensing equipment.....	(X)	12,273	(X)	(X)	(X)	(X)	(X)
35990	Carburator, pistons, and other machine shop products.....	(X)	2,312	(X)	(X)	(X)	(X)	(X)
37224	Aircraft engine parts and accessories.....	(X)	12,729	(X)	(X)	(X)	(X)	(X)
38213	Industrial process instruments.....	(X)	8,670	(X)	(X)	(X)	(X)	(X)
38220	Automatic temperature controls.....	(X)	2,078	(X)	(X)	(X)	(X)	(X)
	All other secondary products <sup>20</sup> .....	(X)	120,531	(X)	(X)	(X)	(X)	(X)
	Miscellaneous receipts.....	(X)	74,383	(X)	(X)	(X)	(X)	(X)
	Receipts for contract work.....	(X)	4,703	(X)	(X)	(X)	(X)	(X)
	Scrap.....	(X)	13,331	(X)	(X)	(X)	(X)	(X)
	Sale of products bought and resold.....	(X)	46,558	(X)	(X)	(X)	(X)	(X)
	All other receipts.....	(X)	9,791	(X)	(X)	(X)	(X)	(X)
COLLAPSIBLE TUBES INDUSTRY								
	Total shipments and receipts of the industry.....		(X)		51,027			(X)
34960	Collapsible tubes.....		44,216		44,216			-
	Secondary products.....		(X)		5,920			(X)
	Miscellaneous receipts.....		(X)		891			(X)
	Sale of products bought and resold.....		(X)		341			(X)
	All other receipts.....		(X)		550			(X)
METAL FOIL AND LEAF INDUSTRY								
	Total shipments and receipts of the industry.....	(X)	180,567	(X)	(X)	(X)	(X)	(X)
34970	Metal foil and leaf.....	329,930	147,352	17,871	7,209	134,653		<sup>21</sup> 22,845
	Secondary products.....	(X)	28,555	(X)	(X)	(X)	(X)	(X)
27518	Other gravure printing.....	(X)	3,748	(X)	(X)	(X)	(X)	(X)
	All other products.....	(X)	<sup>22</sup> 24,807	(X)	(X)	(X)	(X)	(X)
	Miscellaneous receipts.....	(X)	4,660	(X)	(X)	(X)	(X)	(X)
	Receipt for contract work.....	(X)	1,275	(X)	(X)	(X)	(X)	(X)
	Sale of products bought and resold.....	(X)	871	(X)	(X)	(X)	(X)	(X)
	All other receipts.....	(X)	2,514	(X)	(X)	(X)	(X)	(X)

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of product and miscellaneous receipts	All industries	Fabricated pipe and fittings (SIC 3498)	Valves and pipe fittings (SIC 3494)	Fabricated metal products, n.e.c. (SIC 3499)	Other industries			
FABRICATED PIPE AND FITTINGS INDUSTRY									
34980	Total shipments and receipts of the industry.....	(X)	305,640	(X)	(X)	(X)			
	Fabricated pipe and fittings.....	286,535	259,647	3,691	2,715	<sup>23</sup> 20,483			
	Secondary products.....	(X)	<sup>24</sup> 21,129	(X)	(X)	(X)			
	Miscellaneous receipts.....	(X)	24,864	(X)	(X)	(X)			
	Receipts for contract work.....	(X)	5,707	(X)	(X)	(X)			
	Sale of products bought and resold.....	(X)	15,292	(X)	(X)	(X)			
	All other receipts.....	(X)	3,865	(X)	(X)	(X)			
Prod. class code	Class of product and miscellaneous receipts	All industries	Fabricated metal products, n.e.c. (SIC 3499)	Blast furnaces and steel mills (SIC 3312)	Hardware, n.e.c. (SIC 3429)	Sheet metal work (SIC 3444)	Metal stampings (SIC 3461)	Radio, TV communi- cations equipment (SIC 3662)	Other industries
FABRICATED METAL PRODUCTS, N.E.C., INDUSTRY									
34990	Total shipments and receipts of the industry.....	(X)	573,185	(X)	(X)	(X)	(X)	(X)	(X)
	Fabricated metal products, n.e.c.....	753,371	469,193	84,424	12,846	9,026	11,968	9,344	<sup>25</sup> 156,570
	Secondary products.....	(X)	60,295	(X)	(X)	(X)	(X)	(X)	(X)
24995	Wood products, n.e.c.....	(X)	3,317	(X)	(X)	(X)	(X)	(X)	(X)
34612	Job stampings, except automotive.....	(X)	2,226	(X)	(X)	(X)	(X)	(X)	(X)
34930	Fabricated pipe and fittings.....	(X)	2,715	(X)	(X)	(X)	(X)	(X)	(X)
	All other secondary products.....	(X)	<sup>26</sup> 52,037	(X)	(X)	(X)	(X)	(X)	(X)
	Miscellaneous receipts.....	(X)	43,697	(X)	(X)	(X)	(X)	(X)	(X)
	Receipts for contract work.....	(X)	8,305	(X)	(X)	(X)	(X)	(X)	(X)
	Sale of products bought and resold.....	(X)	31,643	(X)	(X)	(X)	(X)	(X)	(X)
	All other receipts.....	(X)	3,749	(X)	(X)	(X)	(X)	(X)	(X)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Includes values for those industries for which separate data could not be published without revealing the operations of individual companies.

<sup>2</sup>Includes total for product class 33151, Noninsulated ferrous wire rope, cable, and strand, produced from wire drawn in the same establishment, which is primary to industry 3315.

<sup>3</sup>Includes shipments totaling over \$2 million for industry 3352, Aluminum Rolling and Drawing, which is withheld to avoid disclosing individual company figures.

<sup>4</sup>Includes shipments totaling over \$2 million which is withheld to avoid disclosing individual company figures for industry 3315, Steel Wire Drawing, Etc., and industry 3316, Cold Finishing of Steel Shapes.

<sup>5</sup>Includes shipments totaling over \$2 million which is withheld to avoid disclosing individual company figures for industry 3315, Steel Wire Drawing, etc., and industry 3429, Hardware, N.E.C.

<sup>6</sup>Includes total for product class 33157, Wire cloth and other woven wire products, made in wire drawing plants which is primary to industry 3315.

<sup>7</sup>Includes shipments totaling over \$2 million which is withheld to avoid disclosing individual company figures for industry 3357, Nonferrous Wire Drawing, Etc., and industry 3548, Metal Working Machinery, N.E.C.

<sup>8</sup>Includes total for product class 33575, Nonferrous wire cloth and other woven wire products, made in nonferrous wire drawing plants which is primary to industry 3357.

<sup>9</sup>Includes \$2 million shipped by industry 3442, Metal Doors, Sash, and Trim.

<sup>10</sup>Includes total for product class 33156, Fencing and fence gates, made in wire drawing plants which is primary to industry 3315.

<sup>11</sup>Includes total for product class 33159, Other fabricated ferrous wire products, except springs made in wire drawing plants which is primary to industry 3315.

<sup>12</sup>Includes \$2 million shipped by industry 3441, Fabricated Structural Steel; \$6 million shipped by industry 3449, Miscellaneous Metal Work, N.E.C.; and \$3 million shipped by industry 3461, Metal Stampings. In addition shipments of over \$2 million were reported by industry 2541, Metal Household Furniture, and industry 3554, Paper Industries Machinery, which are withheld to avoid disclosing individual company figures.

<sup>13</sup>Includes \$11.7 million shipped by industry 3411, Metal Cans and \$7.3 million shipped by industry 3461, Metal Stampings.

<sup>14</sup>The following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3461, Metal Stampings, and 3639, Household Appliances, N.E.C.

<sup>15</sup>The following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3461, Metal Stampings and 3729, Aircraft Equipment, N.E.C.

<sup>16</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 26551, Paperboard and other fiber drums, and 34412, Fabricated structural iron and steel for bridges.

<sup>17</sup>Includes \$15.8 million shipped by industry 3481, Fabricated Wire Products, N.E.C. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3391, Iron and Steel Forgings, and 3717, Motor Vehicles and Parts.

Footnotes continued on next page.



**TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued**

Footnotes for Table 5B--34E--Continued

<sup>18</sup>Includes \$3.2 million shipped by industry 3432, Plumbing Fittings, Brass Goods. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3392, Nonferrous Forgings; 3433, Heating Equipment, Except Electric; 3443, Boiler Shop Products; 3511, Steam Engines and Turbines; 3599, Miscellaneous Machinery; and 3717, Motor Vehicles and Parts.

<sup>19</sup>Includes \$3.2 million shipped by industry 3432, Plumbing Fittings, Brass Goods, and \$4.0 million shipped by industry 3433, Heating Equipment, Except Electric; and industry 3561, Pumps and Compressors had shipments which totaled \$2 million or more but is withheld to avoid disclosing figures for individual companies.

<sup>20</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 33911, Drop, upset and press steel forgings (closed die) forgings; 33919, Open die or smith forgings (open frame hammer or press); 33920, Nonferrous forgings; 34443, Other sheet metal work; 35227, Lawn mowers and parts; 35323, All other mining machinery (complete units); 35332, Other oil and gas-field drilling machinery and equipment; 35483, Acetylene welding and cutting apparatus; 35612, Hydraulic fluid power pumps and motors; 35641, Industrial fans and blowers; 35851, Heat transfer equipment; 35860, Measuring and dispensing pumps; 36220, General industry power circuit devices and controls; 36441, Pole line and transmission hardware; 36795, Other electronic components and accessories, n.e.c., including parts for electronic tubes (except glass blanks); and 37175, Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers.

<sup>21</sup>The following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 2643, Bags, Except Textile Bags; and 3356, Rolling and Drawing, N.E.C.

<sup>22</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 26416, Other coated and processed paper, except wrappers; 26432, Specialty bags and liners; 26510, Folding paperboard boxes and cartons, except ice cream, butter, margarine, frozen food, etc.; and 34441, Sheet, metal roofing and siding, and roof drainage equipment.

<sup>23</sup>In addition, the following industries had shipment which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 2911, Petroleum Refining; 3533, Oil Field Machinery; and 3599, Miscellaneous Machinery.

<sup>24</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 34944, Other metal valves and fittings, except plumbers' brass goods and fittings; and 35690, General industrial machinery, n.e.c.

<sup>25</sup>Includes \$4.1 million shipped by industry 2499, Wood Products, N.E.C.; \$4.1 million shipped by industry 2514, Metal Household Furniture; \$3.7 million shipped by industry 2542, Metal Partitions and Fixtures; \$2.1 million shipped by industry 3423, Hand and Edge Tools; \$2.2 million shipped by industry 3442, Metal Doors, Sash, and Trim; \$2.9 million shipped by industry 3443, Boiler Shop Products; \$6.0 million shipped by industry 3494, Valves and Pipe Fittings; \$3.8 million shipped by industry 3559, Special Industry Machines, N.E.C.; \$4.8 million shipped by industry 3585, Refrigeration Machinery; \$4.4 million shipped by industry 3644, Noncurrent Carrying Devices; \$3.2 million shipped by industry 3717, Motor Vehicles and Parts; and \$6.6 million shipped by industry 3729, Aircraft Equipment, N.E.C. In addition the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 2515, Mattresses and Bedsprings; 2641, Paper Coating and Glazing; 3321, Gray Iron Foundries; 3323, Steel Foundries; 3425, Hand Saws and Saw Blades; 3522, Farm Machinery and Equipment; 3531, Construction Machinery; 3552, Textile Machinery; 3562, Ball and Roller Bearings; 3631, Household Cooking Equipment; 3639, Household Appliances, N.E.C.; 3642, Lighting Fixtures; 3643, Current Carrying Devices; 3742, Railroad and Street Cars; and 3843, Dental Equipment and Supplies.

<sup>26</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 25144, Other metal household furniture; 35451, Small cutting tools for machine tools and metal working machinery; 35690, General industrial machinery, n.e.c.; and 39142, Flatware.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3481- --	MISCELLANEOUS FABRICATED WIRE PRODUCTS.....	.....	(X)	1,399,261	(X)	1,164,232
33151 -- 34811 --	Noninsulated ferrous wire rope, cable, and strand.....	.....	(X)	189,934	(X)	163,386
33151 -- 34811 --	Made in industries 3312 (blast furnaces and steel mills) and 3315 (steel wire drawing)..... Made in fabricated wire products, n.e.c. (industry 3481) and other industries.....	..... .....	(X) (X)	100,946 88,988	(X) (X)	94,106 69,280
33151 11 34811 11	Iron and steel wire rope and cable.....	Short tons...	235,262	141,184	187,395	125,025
33151 11 34811 11	Made in industries 3312 and 3315..... Made in industry 3481 and other industries.....	...do..... ...do.....	135,385 99,877	67,775 73,409	96,686 90,709	62,561 62,464
33151 21 34811 21	Composite strand, rope, and cable, including wire strands of different metals (except ACSR).....	...do.....	69,533	27,952	8,321	6,155
33151 33 34811 33	Steel wire strand, except wire strand for prestressed concrete, including guard rail cable.....	...do.....				
33151 35 34811 35	Wire strand for prestressed concrete.....	...do.....	36,216	11,773	(NA)	30,352
33151 00 34811 00	Noninsulated ferrous wire rope, cable, and strand, n.s.k.....	.....	(X)	9,025	(X)	1,854
34812 11	Precision mechanical springs.....	Short tons...	118,082	149,985	102,586	108,984
34813 --	Other wire springs.....	.....	(X)	239,498	(X)	187,772
34813 11	Upholstery and furniture springs (unassembled): Seat and back springs for motor vehicles.....	Short tons...	185,403	99,122	<sup>1</sup> 122,349	76,544
34813 13	Springs for mattresses and bedsprings: Quantity reported..... Quantity not reported.....	...do..... .....	50,985 (X)	19,783 2,983	15,132 (X)	7,049 1,107
34813 17	Spring units for box springs, innerspring mattresses and dual purpose sleep furniture.....	Short tons...	(NA)	33,116	(NA)	54,261
34813 18	Spring units for upholstered furniture (unassembled).....	...do.....	(NA)	13,334	<sup>2</sup> 23,090	13,682
34813 19	Other upholstery and furniture springs.....	...do.....	(NA)	5,398	<sup>3</sup> 7,592	3,389
34813 98	Other wire springs: Quantity reported..... Quantity not reported.....	...do..... .....	40,623 (X)	27,915 14,565	28,129 (X)	15,578 3,916
34813 00	Wire springs, n.s.k.....	.....	(X)	23,282	(X)	12,246
33157 -- 34814 --	Ferrous wire cloth and other woven ferrous wire products.....	.....	(X)	72,328	(X)	<sup>4</sup> 97,899
33157 -- 34814 --	Made in industries 3312 (blast furnaces and steel mills) and 3315 (steel wire drawing)..... Made in fabricated wire products, n.e.c. (industry 3481) and other industries.....	..... .....	(X) (X)	24,317 48,011	(X) (X)	25,943 71,956
33157 21 34814 11	Insect wire screening, steel, including stainless steel.....	1,000 sq.ft...	168,633	7,454	217,660	9,791
33157 31 34814 31	Hardware cloth.....	Short tons...	8,637	6,277	10,162	7,218
33157 61 34814 61	Industrial wire cloth, steel.....	1,000 sq.ft...	(NA)	23,713	48,508	24,675
33157 61 34814 61	Made in industries 3312 and 3315..... Made in industry 3481 and other industries.....	...do..... ...do.....	(NA) 25,872	4,603 19,110	17,041 31,467	3,200 21,475
33157 71 34814 71	Woven wire netting (poultry, fur farm, stucco, etc.).....	Short tons...	(NA)	13,617	52,189	16,460
33157 98 34814 98	Other wire cloth and woven wire products including diamond cloth.....	.....	(X)	21,090	(X)	<sup>4</sup> 16,679
33157 00 34814 00	Wire cloth and woven wire products, n.s.k.....	.....	(X)	1,209	(X)	<sup>5</sup> 23,076
33575 -- 34815 --	Nonferrous wire cloth and other woven nonferrous wire products.....	.....	(X)	70,487	(X)	<sup>4</sup> 59,096
33575 -- 34815 --	Made in industry 3357 (nonferrous wire drawing, etc.)..... Made in fabricated wire products, n.e.c. (industry 3481) and other industries.....	..... .....	(X) (X)	21,231 49,256	(X) (X)	9,983 49,113

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
33575 -- 34815 --	Nonferrous wire cloth and other woven nonferrous wire products—Continued					
34815 --	Made in fabricated wire products, n.e.c. (industry 3481) and other industries—Continued					
	Insect wire screening:					
33575 25 34815 15 33575 25 34815 15	Aluminum..... Made in industry 3357..... Made in industry 3481 and other industries.....	1,000 sq.ft... ...do..... ...do.....	459,123 188,096 271,027	21,216 7,256 13,960	305,356 107,875 197,481	18,239 6,478 11,761
33575 23 34815 13 33575 29 34815 19	Copper and copper-base alloy..... All other nonferrous metal.....	...do..... ...do.....	(NA)	804	(NA) (4)	2,921 (4)
33575 51 34815 51 33575 65 34815 65	Paper machine wire cloth (fourdrinier and cylinder) (including stainless steel)..... Industrial wire cloth, nonferrous.....	...do..... ...do.....	24,600 12,484	36,586 8,836	22,976 68,496	30,902 7,034
33575 00 34815 00	Nonferrous wire cloth and other woven nonferrous wire products, n.s.k.....	.....	(X)	3,045	(X)	(5)
33156 -- 34816 --	Fencing and fence gates.....	.....	(X)	115,480	(X)	103,309
33156 -- 34816 --	Made in industries 3312 (blast furnaces and steel mills) and 3315 (steel wire drawing)..... Made in fabricated wire products, n.e.c. (industry 3481) and other industries.....	..... .....	(X) (X)	58,331 57,149	(X) (X)	48,045 55,264
33156 13 34816 13	Chain link fencing, excluding post, gates and fittings.....	Short tons....	(NA)	37,458	(NA)	56,277
33156 35 34816 35	Fence gates, posts, and fittings.....	...do.....	125,883	38,467		
33156 13, 35 34816 13, 35	Made in industries 3312 and 3315..... Made in industry 3481 and other industries.....	...do..... ...do.....	(NA) (NA)	30,231 45,694	51,456 (NA)	11,654 42,599
33156 21 34816 21 33156 21 34816 21	Wire fence, woven and welded..... Made in industries 3312 and 3315..... Made in industry 3481 and other industries.....	...do..... ...do..... ...do.....	132,190 109,694 22,496	33,294 26,256 7,038	(NA) 127,770 (NA)	34,363 30,194 4,169
33156 71 34816 71 33156 71 34816 71	Ornamental lawn fence..... Made in industries 3312 and 3315..... Made in industry 3481 and other industries.....	...do..... ...do..... ...do.....	11,011 5,781 5,230	3,452 1,844 1,608	19,754 17,995 1,759	5,695 5,134 561
33156 00 34816 00	Fencing and fence gates, n.s.k.....	.....	(X)	2,809	(X)	6,974
33159 -- 34819 --	Other fabricated wire products.....	.....	(X)	501,529	(X)	405,656
33159 -- 34819 --	Made in industries 3312 (blast furnaces and steel mills) and 3315 (steel wire drawing)..... Made in fabricated wire products, n.e.c. (industry 3481) and other industries.....	..... .....	(X) (X)	181,560 319,969	(X) (X)	143,168 262,488
	Wire chain:					
33159 41 34819 41 33159 41 34819 41	Tire..... Made in industries 3312 and 3315..... Made in industry 3481 and other industries.....	Short tons.... ...do..... ...do.....	20,899 7,772 13,127	14,834 5,609 9,225	28,844 9,626 19,218	20,141 7,018 13,123
33159 49 34819 49 33159 49 34819 49	Other..... Made in industries 3312 and 3315..... Made in industry 3481 and other industries.....	...do..... ...do..... ...do.....	61,465 19,740 41,725	44,652 14,161 30,491	47,944 14,557 33,387	34,553 11,649 22,904
33159 51 34819 51	Barbed and twisted steel wire.....	...do.....	110,613	20,348	57,388	12,131
33159 55 34819 55 33159 55 34819 55	Wire bale ties..... Made in industries 3312 and 3315..... Made in industry 3481 and other industries.....	...do..... ...do..... ...do.....	86,934 73,184 13,750	17,340 13,932 3,408	71,260 56,717 14,543	15,682 12,181 3,501

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
33159 -- 34819 --	Other fabricated wire products—Continued					
34819 --	Made in fabricated wire products, n.e.c. (industry 3481) and other industries—Continued					
	Welded steel wire fabric:					
33159 61 34819 61	Concrete reinforcing mesh.....	Short tons....	486,664	94,172	516,694	97,539
33159 61 34819 61	Made in industries 3312 and 3315.....	...do.....	379,350	74,160	435,148	80,106
	Made in industry 3481 and other industries.....	...do.....	107,314	20,012	81,546	17,433
33159 65 34819 65	Other welded steel wire fabric.....	...do.....	127,661	31,191	74,392	19,454
33159 65 34819 65	Made in industries 3312 and 3315.....	...do.....	116,676	27,305	64,145	16,207
	Made in industry 3481 and other industries.....	...do.....	10,985	3,886	10,247	3,247
33159 71 34819 71	Wire garment hangers.....	1,000 lbs....	161,381	25,685	146,672	19,517
33159 73 34819 73	Wire carts, including household, grocery type and industrial.....	.....	(X)	14,957		
33159 75 34819 75	Steel wire cages.....	.....	(X)	9,198		
33159 77 34819 77	Paper clips.....	.....			(X)	158,475
33159 98 34819 98	Other wire products including baskets, guards, florists' designs, kitchenware, etc.....	.....	(X)	211,298		
33159 00 34819 00	Other fabricated wire products, n.s.k.....	.....	(X)	17,854	(X)	28,164
34110 00	Miscellaneous fabricated wire products, n.s.k.....	.....	(X)	60,020	(X)	38,130
3491- --	METAL BARRELS, DRUMS, AND PAILS, TOTAL.....	.....	(X)	317,873	(X)	258,953
34911 --	Steel shipping pails (12 gallon capacity and under): <sup>7</sup>					
34911 11	Reported in census of manufactures.....	.....	(X)	87,186	(X)	80,229
	Reported on Monthly Form M34K.....	1,000 units...	79,073	(NA)	72,179	(NA)
	Detailed figures by type of pail from monthly survey:					
34911 15 34911 19	Tapered pails, all capacities, all gauges.....	...do.....	16,207	(NA)	9,039	(NA)
	Dome top pails, all capacities, all gauges.....	...do.....	4,606	(NA)	4,143	(NA)
	Other types.....	...do.....	58,260	(NA)	58,997	(NA)
	For sale.....	...do.....	55,307	(NA)	57,146	(NA)
34911 21 34911 25	1 to 2 gallon, all gauges.....	...do.....	2,426	(NA)	2,957	(NA)
	Over 2 gallon, up to but excluding 5 gallon, all gauges.....	...do.....	3,196	(NA)	3,564	(NA)
34911 29 34911 31	5 gallon, 24 gauge and heavier.....	...do.....	13,711	(NA)	20,152	(NA)
34911 31 34911 35	5 gallon, 26 gauge.....	...do.....	24,190	(NA)	23,261	(NA)
34911 35 34911 39	5 gallon, 28 gauge and lighter.....	...do.....	7,491	(NA)	2,304	(NA)
	Over 5 gallon, up to and including 7 gallon, all gauges 11-1/4" diameter or less.....	...do.....	2,711	(NA)	3,303	(NA)
34911 41	7 gallon, up to and including 12 gallon, all gauges, all diameters over 11-1/4".....	...do.....	1,582	(NA)	1,605	(NA)
	For own use.....	...do.....	2,953	(NA)	1,851	(NA)
34911 21-35 34911 39	1 to 5 gallon capacity.....	...do.....				
34911 39 34911 41	Over 5 gallon, up to and including 7 gallon, all gauges, 11-1/4" diameter or less.....	...do.....	2,953	(NA)	1,302	(NA)
	7 to 12 gallon capacity, diameter over 11-1/4".....	...do.....			549	(NA)
34912 --	Steel shipping barrels and drums (over 12 gallon capacity): <sup>8</sup>					
34912 10	Reported in the census of manufactures.....	.....	(X)	191,501	(X)	162,375
	Reported on Monthly Form M34K.....	1,000 units...	32,297	(NA)	31,491	(NA)
	Detailed data by size of container from monthly surveys:					
	Heavy type.....	...do.....	20,057	(NA)	19,018	(NA)
	Light head liquid type.....	...do.....	16,860	(NA)	15,273	(NA)
	55 gallon capacity:					
34912 11 34912 15	16 gauge and heavier.....	...do.....	484	(NA)	767	(NA)
34912 21	18 gauge.....	...do.....	10,311	(NA)	12,065	(NA)
	19 gauge and lighter (except those with 20 gauge body and 18 gauge head).....	...do.....	89	(NA)		
34912 23	20 gauge body and 18 gauge head.....	...do.....	3,713	(NA)	493	(NA)

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
34912	Steel shipping barrels and drums (over 12 gallon capacity)—Con. Reported on Monthly Form M34K—Continued Detailed data by size of container from monthly surveys—Con. Heavy type—Continued Light head liquid type—Continued					
34912 25	30 to 33 gallon, all gauges.....	1,000 units...	1,225	(NA)	1,036	(NA)
34912 29	All other capacities, all gauges.....	...do.....	1,038	(NA)	912	(NA)
	Full open head type.....	...do.....	3,196	(NA)	3,745	(NA)
34912 31	55 gallon and larger, 18 gauge and heavier.....	...do.....	2,135	(NA)	2,527	(NA)
34912 35	19 and 20 gauge.....	...do.....	168	(NA)	93	(NA)
34912 39	All other capacities, 20 gauge and heavier.....	...do.....	893	(NA)	1,125	(NA)
	Light type (full open head or partial opening).....	...do.....	9,234	(NA)	9,315	(NA)
	For sale.....	...do.....	8,557	(NA)	7,178	(NA)
	Welded side seam construction.....	...do.....	5,262	(NA)	3,276	(NA)
34912 41	Over 30 gallon, 22 to 26 gauge.....	...do.....	2,163	(NA)	1,141	(NA)
34912 46	30 gallon and smaller, 22 to 26 gauge.....	...do.....	2,057	(NA)	1,546	(NA)
34912 47	All capacities, 28 to 30 gauge.....	...do.....	1,042	(NA)	589	(NA)
34912 51	Lock side seam construction.....	...do.....	3,296	(NA)	3,902	(NA)
34912 41-51	For own use.....	...do.....	676	(NA)	2,137	(NA)
34912 61	Grease drums.....	...do.....	3,006	(NA)	3,158	(NA)
34913 --	All other metal barrels, including beer barrels and fluid milk shipping containers.....		(X)	35,887	(X)	14,723
34913 12	All other metal barrels, including parts for metal barrels and pails.....		(X)	29,578	(X)	10,137
34913 31	Metal fluid milk shipping and delivery containers (except crates).....		(NA)	6,309	(NA)	4,586
34910 00	Metal barrels, drums, and pails, n.s.k.....		(X)	3,299	(X)	1,626
3492- --	SAFES AND VAULTS, TOTAL.....		(X)	59,328	(X)	45,088
	Safes and chests:					
	Fire-resistive safes and chests: <sup>9</sup>					
34920 13	One-, two-, and four-hour types.....	Number.....	70,959	8,208	64,114	10,323
34920 17	All other fire-resistive types.....	...do.....				
34920 21	Burglary-resistive safes and chests: <sup>9</sup>					
	Quantity reported.....	...do.....	21,042	5,532	15,694	3,616
	Quantity not reported.....	...do.....	-	-	(X)	626
34920 41	Safe deposit boxes.....		(X)	45,588	291,403 (X)	7,038 1,975
	Quantity reported.....					
	Quantity not reported.....					
34920 98	All other bank and security vaults and equipment, including bank security lockers, night depositories, security equipment for drive-in windows and similar equipment and signaling and alarm equipment when sold together with bank equipment and other interior equipment for safes and chests.....		(X)	45,588	(X)	18,880 2,630
34920 00	Safes and vaults, not specified by kind.....					
3493- --	STEEL SPRINGS, TOTAL.....		(X)	205,235	(X)	133,143
	Helical springs, hot wound:					
	Automotive coil springs:					
34930 11	Shipments to motor vehicle manufacturers (auto, truck, bus, trailer, etc.).....	Short tons...	115,719	35,266	47,642	13,887
34930 13	Shipments to other customers.....	...do.....	12,736	3,837	7,281	2,624
34930 15	Locomotive and railroad car.....	...do.....	42,155	13,834	22,831	7,133
34930 19	Other helical springs, hot wound.....	...do.....	11,627	6,398	5,596	2,304
	Leaf springs:					
	Automotive (auto, truck, bus, trailer, etc.):					
34930 51	Shipments to motor vehicle manufacturers.....	...do.....	256,739	91,519	185,036	60,125
34930 59	Shipments to other customers.....	...do.....	41,676	18,154	30,676	12,828

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
	Leaf springs—Continued					
34930 63	Leaf springs for tractors, farm equipment, locomotive and railroad cars and other heavy equipment.....	Short tons....	6,678	2,126	9,910	3,326
34930 71	Flat springs made of sheet and strip.....	.....	(X)	19,804	(X)	19,502
34930 98	Other steel springs, including torsion bar springs, except wire springs.....	.....	(X)	6,954	(X)	3,123
34930 00	Steel springs, except wire, n.s.k.....	.....	(X)	7,343	(X)	8,291
3494- --	VALVES AND PIPE FITTINGS (EXCEPT PLUMBERS' BRASS GOODS AND FITTINGS), TOTAL.....	.....	(X)	1,525,399	(X)	1,193,012
34941 --	Metal valves for piping systems (except plumbing and heating valves).....	.....	(X)	686,096	(X)	559,840
	Gates, globes, angles, checks, butterflies, lubricated plugs, cocks, stop and checks, cross, etc. (except automatic regulating valves):					
34941 11	Iron (all pressures) (includes fire hydrants).....	Short tons....	146,217	160,197	150,272	137,406
34941 13	Steel (carbon and alloy) (all pressures).....	do.....	65,760	182,430	60,808	175,727
34941 15	Brass and bronze (125 lb. W.S.P. and over).....	do.....	33,269	99,097	21,629	75,032
34941 17	Aluminum.....	do.....	588	3,666	(NA)	(NA)
	Pop safety valves and relief valves (over 15 lb. W.S.P.):					
34941 31	Iron.....	do.....	2,917	6,922	1,046	2,422
34941 33	Steel (carbon and alloy).....	do.....	6,054	24,701	3,632	11,404
34941 35	Brass and bronze.....	do.....	3,162	12,684	1,730	6,174
	Automatic regulating valves:					
34941 51	Diaphragm-actuated.....	.....	(NA)	55,911	(NA)	71,311
34941 53	Float-actuated (include float cages).....	.....	(NA)	5,165	(NA)	5,414
34941 54	Solenoid-actuated.....	1,000 units..	1,477	25,640	(NA)	51,988
34941 55	Other automatic regulating valves.....	.....	(NA)	83,280		
34941 57	Compressed gas cylinder valves.....	.....	(NA)	13,105	(NA)	8,864
34941 00	Metal valves for piping systems, n.s.k.....	.....	(X)	13,298	(X)	14,098
34942 --	Metal fittings and unions for piping systems:					
	Fittings, flanges, and unions.....	.....	(X)	421,664	(X)	374,233
34942 11	Gray iron.....	Short tons....	77,198	34,910	79,399	31,621
	Malleable iron:					
34942 13	Fittings and flanges.....	do.....	85,382	56,865	70,354	50,033
34942 15	Unions and union fittings.....	do.....	20,427	24,167	17,223	14,074
34942 21	Cast carbon and alloy steel.....	do.....	7,143	10,453		
	Forged carbon and alloy steel:					
34942 23	Fittings and unions.....	do.....	45,030	62,665	103,778	111,143
34942 25	Flanges.....	do.....	39,954	33,376		
34942 27	Fittings, welding type.....	do.....	42,830	34,158		
34942 18	Cast and wrought copper and copper-brass alloy.....	do.....	50,283	88,227	40,201	68,555
34942 19	Aluminum.....	do.....	510	1,298	(NA)	(NA)
	Steam traps (over 15 lb. W.S.P.):					
34942 51	Thermostatic; and combination float and thermostatic.....	1,000 units..	(NA)	7,464	697	6,355
34942 55	Mechanical.....	do.....	368	5,002	330	4,241
34942 98	Other metal piping specialties for piping systems (except plumbing and heating valves).....	.....	(X)	57,036	(X)	88,211
34942 00	Metal fittings and unions for piping systems, n.s.k.....	.....	(X)	6,042	(X)	-
34943 --	Plumbing and heating valves and specialties (except plumbers' brass goods).....	.....	(X)	87,860	(X)	87,110
34943 11	Gates, globes, angles, checks, butterflies, lubricated plugs, cocks, stop and checks, cross, etc.; brass and bronze valves (under 125 W.S.P.).....	Short tons....	11,383	24,267	17,540	38,250
34943 51	Steam traps (15 lb. W.S.P. and under).....	.....	(X)	3,578	(X)	4,087
34943 98	Other metal plumbing and heating valves and specialties, including pop safety valves and relief valves - 15 lb. W.S.P. and under.....	.....	(X)	55,401	(X)	41,649
34943 00	Plumbing and heating valves and specialties, except plumbers' brass goods and fittings, n.s.k.....	.....	(X)	4,614	(X)	3,124
34944 --	Other metal valves and fittings, except plumbers' brass goods and fittings.....	.....	(X)	303,319	(X)	151,564

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
34944 --	Other metal valves and fittings, except plumbers' brass goods and fittings—Continued					
34944 71	Pipe hangers and pipe supports.....		(X)	27,634	(X)	13,497
34944 81	Valves for power transfer (pneumatic or hydraulic) such as for directional control, pressure control, and flow or volume control.....		(X)	183,228	(X)	138,067
34944 98	Other metal valves and fittings, except plumbers' brass goods and fittings.....		(X)	86,988		
34944 00	Other metal valves and fittings, except plumbers' brass goods and fittings, not specified by kind.....		(X)	5,469		
34940 00	Valves and fittings, except plumbers' brass goods and fittings, n.s.k.....		(X)	26,460	(X)	20,265
3496- --	COLLAPSIBLE TUBES, TOTAL.....		(X)	44,216	(X)	37,172
34960 11	Aluminum.....	1,000 gross...	4,564	22,594	4,035	21,339
34960 12	Lead.....	do.....	2,980	14,460	1,992	9,429
34960 13	Tin.....	do.....	798	5,856	746	3,902
34960 29	Other, including tin-coated and tin-lead alloy.....		(X)	656	(X)	1,025
34960 00	Collapsible tubes, n.s.k.....		(X)	650	(X)	1,477
3497- --	METAL FOIL AND LEAF (EXCEPT PLAIN ALUMINUM FOIL), TOTAL.....		(X)	329,930	(X)	145,484
	Foil:					
34970 23	Laminated or coated foil in rolls and sheet, plain or printed: Foil laminated and/or coated with polyethylene <sup>10</sup> .....	1,000 lbs. metal content.....	8,898	10,972	1116,225	1117,497
34970 25	Foil laminated and/or coated with materials other than polyethylene <sup>10</sup> .....	do.....	51,433	67,212		
	Converted aluminum foil products (foil only) (except bags and liners): <sup>12</sup>					
34970 32	Household, institutional and freezer foil.....	do.....	99,278	83,050	109,246	109,155
34970 33	Rigid and semirigid containers.....	do.....	52,482	37,064		
34970 34	Gift wrap.....	do.....	(13)	(13)		
34970 35	Other foil products.....	do.....	(NA)	16,200	109,246	109,155
	Converted aluminum foil products made of foil laminated to paper, polyethylene, etc. (except bags and liners): <sup>12</sup>					
34970 36	Gift wrap.....	do.....	1312,071	1312,005		
34970 31	Wrappers and wraps (bread, confections, tobacco, etc.).....	do.....	22,037	42,068	109,246	109,155
34970 38	Other.....	do.....	30,443	32,018		
34970 47	Other foil, including composition (combination of two or more metals).....		(X)	9,987	(X)	5,074
	Leaf:					
34970 51	Gold leaf.....		(X)	5,403	(X)	4,713
34970 57	Other leaf.....		(X)	10,971	(X)	4,704
34970 00	Metal foil and leaf, n.s.k.....		(X)	2,980	(X)	4,341
3498- --	FABRICATED PIPE AND FITTINGS, TOTAL.....		(X)	286,535	(NA)	265,378
34980 13	Iron and steel:					
	Quantity reported.....	Short tons...	225,537	113,969	(X)	87,568
	Quantity not reported.....		(X)	87,568		
34980 15	Aluminum:					
	Quantity reported.....	Short tons...	3,835	6,688	(X)	6,710
	Quantity not reported.....		(X)	6,710		
34980 19	All other nonferrous fabricated pipe and pipe fittings.....		(X)	40,765	(X)	30,835
34980 00	Fabricated pipe and fittings, n.s.k.....		(X)	30,835		

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3499- --	FABRICATED METAL PRODUCTS, N.E.C., TOTAL.....	.....	(X)	753,371	(X)	443,638
	Metal ladders, step and rung types (portable):					
34990 51	Aluminum.....	No. of units..	553,670	14,020	(X)	443,638
34990 52	Other metals.....	.....	(NA)	1,831		
34990 54	Metal ironing boards.....	No. of units..	2,213,588	12,865		
34990 55	Permanent magnets.....	.....	(X)	36,749		
34990 56	Fabricated assemblies of railroad frogs, switches, and crossings..	Short tons....	173,907	53,776		
34990 57	Metal strapping, flat.....	...do.....	297,647	82,243	(X)	443,638
34990 59	Other fabricated metal products, n.e.c. (including metal ammunition boxes and chests).....	.....	(X)	465,155		
34990 00	Fabricated metal products, n.e.c., n.s.k.....	.....	(X)	86,732		

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>This quantity was valued at \$61,700 thousand. The remaining \$14,844 thousand was reported without quantity.

<sup>2</sup>This quantity was valued at \$10,428 thousand. The remaining \$3,254 thousand was reported without quantity.

<sup>3</sup>This quantity was valued at \$2,916 thousand. The remaining \$473 thousand was reported without quantity.

<sup>4</sup>For 1958, data for product code 3481519, Nonferrous metal insect wire screening, other than copper and copper-base alloy, and aluminum, are included with product code 3481498, Other wire cloth and woven wire products.

<sup>5</sup>For 1958, data for product code 3481400, Wire cloth and woven wire products, not specified by kind, include data for product code 3481500, Nonferrous wire cloth and other woven nonferrous wire products, not specified by kind.

<sup>6</sup>This quantity was valued at \$5,599 thousand. The remaining \$1,435 thousand was reported without quantity.

<sup>7</sup>Steel shipping packages, kegs, and pails are defined as single-walled shipping containers with a range of capacity from 1 to 12 gallons inclusive, constructed of steel sheet of 29 gauge and heavier. This definition does not include tin cans (packers' cans, general line cans, and beer cans), terneplate oil containers, fluid milk shipping containers, ice cream cans, gas cylinders, beer barrels, reconditioned barrels and drums, or containers not commercially usable in the transportation of commodities.

<sup>8</sup>Steel shipping barrels and drums are defined as single-walled cylindrical or bilged shipping containers, with a range of capacity from 12 to 132 gallons, constructed of steel. This definition does not include tin cans (packers' cans, general line cans, and beer cans), terneplate oil containers, high and low pressure gas steel cylinders, fluid milk shipping containers, ice cream cans, or containers not commercially usable in the transportation of commodities.

<sup>9</sup>Safes and chests are shown as fire-resistive or burglary-resistive, depending on the primary purpose for which they are built.

<sup>10</sup>More detailed data are available in Current Industrial Reports Series M26F, "Converted Flexible Packaging Products". There are inconsistencies in classification in these two surveys. These differences will be resolved in the 1964 report in the M26F series.

<sup>11</sup>In 1958 these data are limited to laminated foil made from purchased aluminum foil.

<sup>12</sup>More detailed data on converted aluminum foil are available in Current Industrial Reports Series M34P, "Aluminum Foil Converted". That report contains data on poundages of aluminum foil converted by end use. However, it is not possible to precisely compare the data in this industry with data in the annual Current Industrial Report. Some of the products for which aluminum foil consumption is reported in the annual survey are produced for use by the same company to package a commodity. In such cases, the converted aluminum foil product is not included in this industry but is included as a portion of the value of the packaged commodity.

<sup>13</sup>Data for product code 3497034 included with product code 3497036.



TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

Product code	Product and year	Indexes (1954 = 100)		Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value			Production	Unit value
348--	Fabricated wire products, n.e.c. <sup>1</sup> .....1963..	122	118	3491-	Fabricated metal products, n.e.c.—Con.		
	.....1958..	106	112		Metal barrels, drums, and pails.....1963..	110	132
					.....1958..	102	121
3481-	Fabricated wire products, n.e.c. <sup>1</sup> .....1963..	122	118	34911	Steel shipping pails (12 gallon capacity and under).....1963..	127	125
	.....1958..	106	112		.....1958..	116	126
34811	Noninsulated ferrous wire rope, cable, and strand.....1963..	136	110	34912	Steel shipping barrels and drums (over 12 gallon capacity).....1963..	98	136
	.....1958..	110	106		.....1958..	95	119
34812	Precision mechanical springs.....1963..	100	152	3493-	Steel springs.....1963..	124	125
	.....1958..	85	131		.....1958..	89	116
34813	Other wire springs.....1963..	117	106	3494-	Valves and pipe fittings (except plumbers' brass goods and fittings) <sup>3</sup> .....1963..	129	127
	.....1958..	98	100		.....1958..	104	125
34814	Ferrous wire cloth and other woven ferrous wire products.....1963..	90	104	34941	Metal valves for piping systems (except plumbing and heating valves).....1963..	113	140
	.....1958..	113	107		.....1958..	98	136
34815	Nonferrous wire cloth and other woven nonferrous wire products....1963..	189	102	34942	Metal fittings and unions for piping systems.....1963..	118	111
	.....1958..	113	107		.....1958..	105	111
34816	Fencing and fence gates.....1963..	115	106	3496-	Collapsible tubes.....1963..	115	112
	.....1958..	108	107		.....1958..	98	111
349--	Fabricated metal products, n.e.c.....1963..	(2)	(2)	3497-	Metal foil and leaf (except plain aluminum foil).....1963..	177	131
	.....1958..	(2)	(2)		.....1958..	84	128

n.e.c. Not elsewhere classified.

<sup>1</sup>Adjusted to include other fabricated wire products (product class 34819) and products not specified by kind.

<sup>2</sup>Not shown because comparable quantity data were not obtained for a significant portion of these products.

<sup>3</sup>Adjusted to include plumbing and heating valves and specialties (product class 34943) and other metal valves and fittings (product class 34944).

TABLE 6C. Product Classes—Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3481-	Fabricated wire products, n.e.c.....	1,399,261	(NA)	(NA)	(NA)	(NA)	1,164,232	982,720	(NA)
34811	Noninsulated ferrous wire rope, cable and strand, not produced by wire drawers <sup>2</sup> .....	189,934	190,563	178,689	185,228	190,913	163,386	142,875	128,338
34812	Precision mechanical springs.....	149,985	166,583	144,212	139,868	150,324	108,984	98,049	(NA)
34813	Other wire springs.....	239,498	224,318	203,606	228,308	216,326	187,772	191,071	(NA)
34814	Ferrous wire cloth, and other woven ferrous wire products, not produced by wire drawers <sup>3</sup> .....	72,328	(NA)	(NA)	(NA)	(NA)	156,995	131,175	90,792
34815	Nonferrous wire cloth and other woven nonferrous wire products, not made by wire drawers <sup>4</sup> .....	70,487							
34816	Fencing and fence gates, not produced by wire drawers <sup>5</sup> .....	115,480	111,200	113,065	103,530	111,355	103,309	92,909	63,297
34819	Other fabricated wire products, not produced by wire drawers <sup>6</sup> .....	501,529	467,407	453,458	431,233	445,835	405,656	313,382	214,690
34810	Fabricated wire products, n.s.k.....	60,020	(NA)	(NA)	(NA)	(NA)	38,130	13,259	(NA)
3491-	Metal barrels, drums, and pails.....	317,873	291,786	272,341	265,136	290,496	258,953	211,255	179,556
34911	Steel shipping pails (1 to 12 gal. capacity)	87,186	86,903	85,513	86,745	95,212	80,229	54,771	35,604
34912	Steel shipping barrels and drums (over 12 gallon capacity), except beer barrels.....	191,501	186,203	168,976	162,045	177,313	162,375	143,854	107,741
34913	All other barrels, including beer barrels and fluid milk shipping containers.....	35,887	18,455	17,426	16,058	16,437	14,723	12,630	36,211
34910	Metal barrels, drums, and pails, n.s.k.....	3,299	(NA)	(NA)	(NA)	(NA)	1,626	(NA)	(NA)
34920	Safes and vaults.....	59,328	48,917	51,725	50,843	48,171	45,088	33,969	28,737
34930	Steel springs.....	205,235	168,899	133,314	152,440	150,301	133,143	129,593	118,510
3494-	Valves and pipe fittings.....	1,525,399	1,464,495	1,322,363	1,301,604	1,310,027	1,193,012	911,678	557,448
34941	Metal valves for piping systems (except plumbing and heating valves).....	686,096	655,124	605,801	595,633	595,764	559,840	420,305	441,557
34942	Metal fittings and unions for piping systems.....	421,664	412,387	378,193	387,486	397,373	374,233	304,425	
34943	Plumbing and heating valves, and specialties, except plumbers' brass goods.....	87,860	116,628	107,859	95,553	97,551	87,110	94,035	63,761
34944	Other metal valves and fittings, except plumbers' brass goods and fittings.....	303,319	234,418	196,342	193,476	193,345	151,564	788,397	743,175
34940	Valves and fittings, n.s.k.....	26,460	(NA)	(NA)	(NA)	(NA)	20,265	4,516	8,955
34960	Collapsible tubes.....	44,216	41,448	41,883	40,521	40,728	37,172	34,129	23,772
34970	Metal foil and leaf.....	329,930	(180,907)	(157,193)	(156,193)	(157,122)	145,484	128,392	66,473
34980	Fabricated pipe and fittings.....	286,535	248,986	224,203	223,819	247,042	265,378	214,133	109,991
34990	Fabricated metal products, n.e.c.....	753,371	654,604	554,662	542,693	501,745	443,638	364,769	107,942

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Includes product class 33151, Noninsulated ferrous wire rope, cable, and strand produced from wire drawn, which is primary to industry 3315.

<sup>3</sup>Includes product class 33157, Wire cloth and other woven wire products made in wire drawing plants, which is primary to industry 3315.

<sup>4</sup>Includes product class 33575, Nonferrous wire cloth and other woven wire products made in nonferrous wire drawing plants, which is primary to industry 3357.

<sup>5</sup>Includes product class 33156, Fencing and fence gates made in wire drawing plants, which is primary to industry 3315.

<sup>6</sup>Includes product class 33159, Other fabricated ferrous wire products, except springs made in wire drawing plants, which is primary to industry 3315.

<sup>7</sup>Does not include pipe hangars and pipe supports, for which data is not available.



TABLE 6D. **Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>			1963 <sup>1</sup>	1958
NONINSULATED FERROUS WIRE ROPE, CABLE, AND STRAND (33151 and 34811)			FERROUS WIRE CLOTH AND OTHER WOVEN FERROUS WIRE PRODUCTS (33157 and 34814)			OTHER FABRICATED WIRE PRODUCTS (33159 and 34819)—Continued		
United States, total....	189,934	163,386	United States, total...	72,328		Middle Atlantic.....	150,329	138,115
New England.....	16,818	2,694	New England.....	9,168		New York.....	44,907	45,598
Middle Atlantic.....	85,325	72,294	Massachusetts.....	4,917		New Jersey.....	23,304	11,007
New York.....	8,130	2,587	Middle Atlantic.....	16,539		Pennsylvania.....	82,118	81,510
New Jersey.....	33,445	29,037	New York.....	6,035		East North Central.....	163,610	131,393
Pennsylvania.....	43,750	40,670	Pennsylvania.....	10,221		Ohio.....	24,015	22,819
East North Central.....	30,211	22,430	East North Central.....	24,279		Indiana.....	27,096	26,068
Ohio.....	2,547	4,100	Ohio.....	7,778		Illinois.....	77,642	55,943
Michigan.....	1,725	( <sup>2</sup> )	Illinois.....	12,393		Michigan.....	29,371	22,286
South Atlantic.....	10,320	9,188				Wisconsin.....	5,486	4,277
West South Central.....	3,117	( <sup>2</sup> )	East South Central.....	4,379		West North Central.....	42,938	35,246
Texas.....	3,117	( <sup>2</sup> )	Pacific.....	7,257		Minnesota.....	8,221	7,983
Pacific.....	17,434	12,217	All other divisions.....	10,656		Iowa.....	8,002	4,368
All other divisions.....	26,709	44,563				Missouri.....	22,339	19,027
PRECISION MECHANICAL SPRINGS (34812)			NONFERROUS WIRE CLOTH AND OTHER WOVEN NONFERROUS WIRE PRODUCTS (33575 and 34815)			Kansas.....	3,011	( <sup>2</sup> )
United States, total....	149,985	108,984	United States, total...	70,487		South Atlantic.....	24,026	14,639
New England.....	16,477	12,314	New England.....	7,575		Maryland.....	12,131	7,054
Connecticut.....	14,750	9,469	Massachusetts.....	4,572		North Carolina.....	1,658	( <sup>2</sup> )
Middle Atlantic.....	20,392	12,352	Middle Atlantic.....	25,689		Georgia.....	2,869	2,169
New York.....	5,513	3,593	New Jersey.....	12,022		Florida.....	4,502	3,969
New Jersey.....	1,366	( <sup>3</sup> )	East North Central.....	13,312		East South Central.....	23,754	15,220
Pennsylvania.....	13,513	8,172	South Atlantic.....	11,692		Tennessee.....	8,891	5,873
East North Central.....	102,192	74,637	Florida.....	6,504		Alabama.....	13,817	9,170
Indiana.....	12,868	( <sup>2</sup> )	East South Central.....	6,917		West South Central.....	20,162	13,315
Illinois.....	41,180	35,855	Pacific.....	1,604		Arkansas.....	1,022	( <sup>2</sup> )
Michigan.....	38,992	23,981	All other divisions.....	3,698		Texas.....	11,653	7,312
Pacific.....	7,415	6,218	FENCING AND FENCE GATES (33156 and 34816)			Mountain.....	15,900	11,856
All other divisions.....	3,509	3,463				Pacific.....	33,461	23,038
OTHER WIRE SPRINGS (34813)						Washington.....	2,177	1,688
United States, total....	239,498	187,772				California.....	31,052	21,055
New England.....	8,742	9,911				STEEL SHIPPING PAILS (1 to 12 GALLON CAPACITY) (34911)		
Massachusetts.....	6,169	5,060				United States, total...	87,186	80,229
Connecticut.....	2,573	4,851				Middle Atlantic.....	23,707	( <sup>2</sup> )
Middle Atlantic.....	17,615	24,432				Pennsylvania.....	9,411	16,573
New York.....	2,507	6,014				East North Central.....	38,026	( <sup>2</sup> )
New Jersey.....	2,312	1,617				Illinois.....	23,273	18,326
Pennsylvania.....	12,796	16,801				West North Central.....	1,605	( <sup>2</sup> )
East North Central.....	142,746	102,869				South Atlantic.....	3,874	( <sup>2</sup> )
Ohio.....	31,994	26,106				West South Central.....	7,557	( <sup>2</sup> )
Indiana.....	12,618	( <sup>2</sup> )				Pacific.....	10,104	6,428
Illinois.....	54,520	40,501				All other divisions.....	2,313	( <sup>2</sup> )
Michigan.....	41,008	28,549				STEEL SHIPPING BARRELS AND DRUMS (OVER 12 GALLON CAPACITY), EXCEPT BEER BARRELS (34912)		
Wisconsin.....	2,606	( <sup>2</sup> )				United States, total....	191,501	162,375
West North Central.....	9,776	8,264				Northeast.....	59,980	( <sup>2</sup> )
Missouri.....	6,749	7,441				New Jersey.....	38,765	22,696
South Atlantic.....	14,060	13,094				East North Central.....	58,155	45,862
North Carolina.....	9,743	7,270				Ohio.....	24,144	18,872
East South Central.....	17,097	5,773				Illinois.....	30,917	25,452
Pacific.....	23,629	( <sup>2</sup> )				West North Central.....	6,680	4,320
California.....	21,850	18,281				Missouri.....	2,386	( <sup>2</sup> )
All other divisions.....	5,833	23,428				South Atlantic.....	5,634	( <sup>2</sup> )
			OTHER FABRICATED WIRE PRODUCTS (33159 and 34819)			East South Central.....	6,223	( <sup>2</sup> )
			United States, total...	501,529	405,656			
			New England.....	27,349	22,854			
			Massachusetts.....	9,551	10,016			
			Connecticut.....	16,474	11,812			

See footnotes at end of table.

TABLE 6D Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
STEEL SHIPPING BARRELS AND DRUMS (OVER 12 GALLON CAPACITY), EXCEPT BEER BARRELS (34912)—Continued			METAL FITTINGS AND UNIONS FOR PIPING SYSTEMS (34942)			OTHER METAL VALVES AND FITTINGS, EXCEPT PLUMBERS' BRASS GOODS AND FIXTURES (34944)—Continued		
West South Central.....	37,847	( <sup>2</sup> )	United States, total....	421,664	374,233	Middle Atlantic.....	62,542	25,146
Louisiana.....	17,394	17,828	New England.....	25,975	29,167	New York.....	24,648	4,467
Texas.....	20,453	20,606	Massachusetts.....	6,466	15,396	New Jersey.....	21,388	9,788
West.....	16,982	( <sup>2</sup> )	Rhode Island.....	11,792	( <sup>2</sup> )	Pennsylvania.....	16,506	10,891
ALL OTHER METAL BARRELS, INCLUDING BEER BARRELS AND FLUID MILK SHIPPING CONTAINERS (34913)			Connecticut.....	7,717	( <sup>2</sup> )	East North Central.....	96,827	71,650
United States, total....	1963 <sup>1</sup>		Middle Atlantic.....	118,122	91,360	Ohio.....	28,134	13,636
Middle Atlantic.....		8,886	New York.....	48,163	35,119	Indiana.....	6,514	( <sup>2</sup> )
New York.....		2,728	New Jersey.....	9,385	10,590	Illinois.....	28,250	27,665
East North Central.....		16,294	Pennsylvania.....	102,145	76,171	Michigan.....	26,372	25,229
Ohio.....		2,771	East North Central.....	188,165	( <sup>2</sup> )	Wisconsin.....	7,557	4,126
West North Central.....		4,782	Ohio.....	48,163	35,119	West North Central.....	28,610	12,290
All other divisions.....		5,925	Indiana.....	35,823	23,547	Minnesota.....	3,959	( <sup>2</sup> )
METAL VALVES FOR PIPING SYSTEMS (EXCEPT PLUMBING AND HEATING VALVES) (34941)			Illinois.....	44,585	49,952	Missouri.....	7,855	6,590
United States, total....	1963 <sup>1</sup>		West North Central.....	5,034	( <sup>2</sup> )	South.....	10,245	9,881
New England.....		75,718	South Atlantic.....	6,525	( <sup>2</sup> )	Texas.....	4,379	3,484
Massachusetts.....		47,240	East South Central.....	47,021	( <sup>2</sup> )	Mountain.....	25,794	( <sup>2</sup> )
Connecticut.....		22,632	Alabama.....	22,385	( <sup>2</sup> )	Pacific.....	57,027	( <sup>2</sup> )
Middle Atlantic.....	134,866	117,864	West South Central.....	18,279	( <sup>2</sup> )	Oregon.....	2,398	1,623
New York.....	32,858	30,593	Texas.....	15,644	14,433	California.....	54,629	16,154
New Jersey.....	33,452	26,291	West.....	12,543	16,719	METAL FOIL AND LEAF (EXCEPT PLAIN ALUMINUM FOIL) <sup>3</sup> (34970)		
Pennsylvania.....	68,556	60,980	PLUMBING AND HEATING VALVES AND SPECIALITIES, EXCEPT PLUMBERS' BRASS GOODS (34943)			United States, total....	329,930	145,484
East North Central.....	210,270	209,041	United States, total....	87,860	87,110	New England.....	18,759	10,869
Ohio.....	75,621	68,213	New England.....	9,297	4,725	Connecticut.....	10,636	8,097
Indiana.....	24,232	23,933	Massachusetts.....	5,362	5,598	Middle Atlantic.....	43,743	24,542
Illinois.....	92,642	99,206	Middle Atlantic.....	9,140	10,030	New York.....	14,826	9,509
Michigan.....	7,489	10,393	Pennsylvania.....	3,257	( <sup>2</sup> )	New Jersey.....	19,313	9,814
Wisconsin.....	10,286	7,296	East North Central.....	50,064	49,807	Pennsylvania.....	9,604	5,219
West North Central.....	71,995	39,920	Ohio.....	10,940	11,464	East North Central.....	57,846	( <sup>2</sup> )
Missouri.....	15,603	( <sup>2</sup> )	Indiana.....	7,099	7,443	Ohio.....	33,209	20,651
South Atlantic.....	3,837	3,646	Illinois.....	24,125	20,184	Illinois.....	18,632	14,924
East South Central.....	51,029	31,192	West North Central.....	4,842	2,855	West North Central.....	30,823	( <sup>2</sup> )
West South Central.....	76,856	47,446	South.....	8,616	11,531	South.....	159,802	31,612
Oklahoma.....	11,979	( <sup>2</sup> )	Pacific.....	5,901	8,162	Pacific.....	18,957	20,027
Texas.....	53,979	39,527	OTHER METAL VALVES AND FITTINGS, EXCEPT PLUMBERS' BRASS GOODS AND FIXTURES (34944)			FABRICATED METAL PRODUCTS, N.E.C. (34990)		
West.....	47,827	( <sup>2</sup> )	United States, total..	303,319	151,564	United States, total....	753,371	443,638
			New England.....	22,274	11,243	New England.....	69,079	31,658
			Massachusetts.....	12,934	( <sup>2</sup> )	New Hampshire.....	1,414	( <sup>2</sup> )
						Massachusetts.....	27,038	10,151
						Rhode Island.....	9,846	3,654
						Connecticut.....	30,262	17,052

See footnotes at end of table.



TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
FABRICATED METAL PRODUCTS, N.E.C. (34990)—Continued			FABRICATED METAL PRODUCTS, N.E.C. (34990)—Continued			FABRICATED METAL PRODUCTS, N.E.C. (34990)—Continued		
Middle Atlantic.....	193,948	116,764	West North Central.....	40,478	13,774	East South Central.....	7,526	2,875
New York.....	72,532	47,601	Minnesota.....	13,283	6,690	Kentucky.....	4,321	1,231
New Jersey.....	30,297	19,249	Iowa.....	6,856	1,719	Tennessee.....	1,679	(Z)
Pennsylvania.....	91,119	49,914	Missouri.....	17,523	4,414	West South Central.....	19,544	4,559
			Kansas.....	2,347	(Z)	Oklahoma.....	3,143	1,172
East North Central.....	306,718	214,624	South Atlantic.....	55,443	38,107	Texas.....	9,489	2,028
Ohio.....	50,118	35,162	Maryland.....	24,183	16,999	Mountain.....	13,141	2,729
Indiana.....	40,679	26,496	Virginia.....	2,295	1,658	Arizona.....	1,249	1,102
Illinois.....	152,641	119,119	North Carolina.....	2,751	3,831	Pacific.....	47,494	18,548
Michigan.....	52,945	28,920	Georgia.....	3,412	1,302	Oregon.....	1,357	(Z)
Wisconsin.....	10,335	4,927	Florida.....	4,886	6,598	California.....	44,810	17,940

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million. n.e.c. Not elsewhere classified.

<sup>1</sup>For the specified product classes shipment of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 33151 and 34811, Massachusetts, Connecticut, Indiana, Illinois, Wisconsin, Missouri, Maryland, Virginia, Georgia, Florida, Colorado, Washington, and California; 34812, Massachusetts, Ohio, Kentucky, and California; 34813, Iowa, Maryland, Kentucky, Mississippi, Texas, and Colorado; 33157 and 34814, Connecticut, Indiana, Michigan, Missouri, Maryland, Kentucky, Colorado, Oregon, and California; 33575 and 34815, Connecticut, New York, Pennsylvania, Ohio, Wisconsin, Missouri, Alabama, Mississippi, and California; 33156 and 34816, Connecticut, Minnesota, Iowa, Missouri, Maryland, Florida, Alabama, Louisiana, Oklahoma, and Colorado; 33159 and 34819, Rhode Island, Delaware, Louisiana, Oklahoma, and Colorado; 34911, Massachusetts, New York, New Jersey, Wisconsin, Kansas, South Carolina, Alabama, Louisiana, Texas, and California; 34912, Connecticut, New York, Pennsylvania, Michigan, Kansas, West Virginia, Tennessee, Alabama, and California; 34913, New Jersey, Pennsylvania, Indiana, Illinois, Wisconsin, Minnesota, Missouri, Nebraska, and South Carolina; 34920, New York, Ohio, and Indiana; 34941, New Hampshire, Rhode Island, Minnesota, Iowa, Nebraska, Kansas, West Virginia, Kentucky, Tennessee, Alabama, Arkansas, Louisiana, Washington, and California; 34942, Michigan, Wisconsin, Missouri, Kansas, Delaware, Georgia, Kentucky, Arkansas, Oklahoma, Colorado, and California; 34943, Rhode Island, Connecticut, New York, New Jersey, Michigan, Wisconsin, Iowa, Oregon, and California; 34944, Vermont, Connecticut, Nebraska, Kansas, Virginia, Oklahoma, Colorado, and Arizona; 34970, Vermont, Massachusetts, Indiana, Wisconsin, Minnesota, Iowa, Missouri, Maryland, Virginia, North Carolina, Kentucky, Tennessee, Arkansas, and California; 34990, West Virginia, South Carolina, Alabama, Arkansas, Louisiana, Colorado, and Washington.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

<sup>3</sup>In 1958 these data are limited to laminated foil made from purchased aluminum foil.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3481.—FABRICATED WIRE PRODUCTS, N.E.C.			
	Materials, parts, containers, and supplies, total.....		(X)	433,668	(X)	373,917
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	30,458	5,440	63,264	11,632
331012	Sheet and strip.....	..do.....	137,110	24,798	107,951	18,794
331015	Structural shapes.....	..do.....	2,536	554	9,106	1,899
331017	Wire and wire products.....	..do.....	908,400	201,780	840,316	185,508
331019	All other carbon steel mill shapes and forms.....	..do.....	29,842	7,147	32,742	6,558
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	14,061	3,338	13,703	2,907
331029	All other alloy steel mill shapes and forms.....	..do.....	7,220	4,208	2,670	1,785
331031	Stainless steel mill shapes and forms.....	..do.....	5,152	10,253	3,393	7,044
	Copper and copper-base alloy mill shapes and forms:					
335728	Bare wire for electrical conduction.....	1,000 lbs.....	781	502	1,050	514
335790	Insulated wire and cable.....	1,000 lbs. (cop- per content)...			201	279
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	7,009	4,543	11,363	7,235
335123	Plate, sheet, and strip (including military cups and discs)...	..do.....	1,963	1,466		
335127	Pipe and tube.....	..do.....	1,338	999		
	Aluminum and aluminum-base alloy mill shapes and forms:					
335202	Sheet, plate and foil.....	..do.....	6,191	1,913	(NA)	512
335205	Extruded shapes (including extruded rod, bar, pipe, tube etc.).	..do.....	6,906	2,138	11,447	6,432
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing etc.).....	..do.....	7,377	3,324		
	Castings (rough and semifinished:) <sup>1</sup>					
332300	Steel.....	Short tons.....	5,014	2,263	3,817	1,493
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	403	233	1,141	564
336200	Copper and copper-base alloy.....		(NA)	29	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	84,042	(X)	78,446
976000	Materials, parts, containers, etc., n.s.k. <sup>2</sup> .....		(X)	74,698	(X)	42,315
			INDUSTRY 3491.—METAL BARRELS, DRUMS, AND PAILS			
	Materials, parts, containers, and supplies, total.....		(X)	176,034	(X)	145,384
	Mill shapes and forms (except castings):					
331011	Carbon steel:					
	Bar and bar shapes.....	Short Tons.....	3,484	533	24,666	3,623
	Steel:					
331012	Sheet and strip.....	..do.....	727,154	106,280	727,141	105,755
331018	Tin plate, terneplate and black plate.....	..do.....	38,155	5,647	14,683	2,160
331017	Wire and wire products.....	..do.....	10,791	1,824	7,071	1,418
331013	Plates.....	..do.....	27,782	4,296	5,902	910
331015	Structural shapes.....	..do.....			666	149
331019	All other carbon steel mill shapes and forms.....	..do.....			1,392	263
331000	Alloy steel (except stainless).....	..do.....	4,203	3,043	968	1,277
331031	Stainless steel mill shapes and forms.....	..do.....				
970000	All other materials and components, parts, containers, and supplies consumed.....		(X)	45,692	(X)	27,070
973000	Materials, components, parts, containers, etc., n.s.k. <sup>2</sup> .....		(X)	8,719	(X)	2,759
			INDUSTRY 3493.—STEEL SPRINGS			
	Materials, containers, parts, and supplies, total.....		(X)	82,268	(X)	58,306
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	65,537	11,009	54,165	8,369
331012	Sheet and strip.....	..do.....	49,616	8,934	20,481	3,543
331017	Wire and wire products.....	..do.....	11,659	5,416	4,915	2,548
331019	All other carbon steel mill shapes and forms.....	..do.....	2,263	557	2,726	554
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	206,456	35,359	168,422	29,008
331029	All other alloy steel mill shapes and forms.....	..do.....				
331031	Stainless steel mill shapes and forms.....	..do.....	207	452	33	61

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3493.—STEEL SPRINGS—Continued			
332300	Steel castings (rough and semifinished).....		(D)	(D)	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	17,988	(X)	8,144
973000	Materials, parts, containers, etc., n.s.k. <sup>2</sup> .....		(X)	2,553	(X)	6,079
			INDUSTRY 3494.—VALVES AND PIPE FITTINGS			
	Materials, parts, containers, and supplies, total.....		(X)	569,770	(X)	440,047
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	61,795	11,707	56,358	11,240
331012	Sheet and strip.....	..do.....	39,618	6,616	13,499	2,562
331013	Plates.....	..do.....	26,782	4,457	25,882	4,229
331019	All other carbon steel mill shapes and forms.....	..do.....	54,565	13,129	44,858	10,998
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	15,067	4,323	6,466	2,070
331029	All other alloy steel mill shapes and forms.....	..do.....	9,008	3,585	5,001	2,834
331031	Stainless steel mill shapes and forms.....	..do.....	12,357	16,510	10,617	12,985
	Copper and copper base alloy:					
335728	Bare wire for electrical conduction.....	1,000 lbs.....	951	435	287	159
335790	Insulated wire and cable.....	1,000 lbs. copper content.	828	754	582	486
335102	Rod, bar, and mechanical wire.....	1,000 lbs.....	109,445	37,818	108,948	37,104
335123	Plate, sheet, and strip.....	..do.....	4,048	2,023		
335127	Pipe and tube.....	..do.....	33,034	16,518		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	..do.....	600	366	1,150	655
335205	Extruded shapes (rod, bar, pipe, etc.).....	..do.....	1,975	1,374	7,565	4,020
335209	All other aluminum mill shapes and forms (wire, rod, etc.).....	..do.....	10,432	5,213		
	Primary metals:					
331051	Pig iron.....	Short tons.....	91,410	5,510	105,281	6,596
333401	Aluminum and aluminum-base alloy refinery shapes, (ingot, slugs, etc.).....	..do.....	1,550	883	(NA)	(NA)
333102	Copper and copper-base alloy refinery shapes.....	..do.....	63,602	38,915	42,431	21,605
	Scrap (purchased only):					
999811	Iron and steel.....	..do.....	221,971	8,238	134,344	5,900
999808	Aluminum and aluminum-base alloy.....	..do.....	6,321	3,638	(NA)	(NA)
999812	Copper and copper-base alloy.....	..do.....	9,535	4,790	24,204	11,845
	Castings (rough and semifinished): <sup>3</sup>					
332011	Iron (gray and malleable).....	..do.....	113,586	39,502	124,832	40,218
332300	Steel.....	..do.....	40,178	37,923	40,559	32,893
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	6,058	5,202	5,166	4,155
336200	Copper and copper-base alloy.....	..do.....	47,863	30,761	56,334	27,514
339100	Iron and steel forgings <sup>4</sup> .....	Short tons.....	26,141	14,718	14,298	9,510
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	215,254	(X)	166,159
976000	Materials, parts, containers, etc., n.s.k. <sup>2</sup> .....		(X)	39,608	(X)	24,310
			INDUSTRY 3496.—COLLAPSIBLE TUBES			
	Materials, parts, containers, and supplies, total.....		(X)	19,336	(X)	15,186
333401	Aluminum and aluminum-base alloy refinery shapes (pig, ingot, shot, slugs, etc.).....	Short tons.....	7,458	5,027	5,223	4,719
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	13,344	(X)	6,821
973000	Materials, parts, containers, etc., n.s.k. <sup>2</sup> .....		(X)	965	(X)	3,646
			INDUSTRY 3497.—METAL FOIL AND LEAF			
	Materials, parts, containers, and supplies, total.....		(X)	114,843	(X)	51,356
	Aluminum and aluminum-base alloy mill shapes and forms:					
335231	Plain foil <sup>5</sup> .....	1,000 lbs.....	68,772	38,791	26,402	15,819
335203	Sheet and plate.....	..do.....	36,632	9,697	17,154	6,853
335205	Extruded shapes.....	..do.....			(NA)	(NA)
335209	All other mill shapes and forms.....	..do.....			(NA)	(NA)

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3497.—METAL FOIL AND LEAF—Continued			
349702	Aluminum foil, laminated <sup>5</sup> .....	1,000 lbs. metal content.....	1,061	1,023	1,733	942
970099	All other material and components, parts, containers, and supplies consumed.....	.....	(X)	62,936	(X)	23,938
976000	Materials, parts, etc., n.s.k. <sup>2</sup> .....	.....	(X)	2,396	(X)	3,804
			INDUSTRY 3498.—FABRICATED PIPE AND FITTINGS			
	Materials, parts, containers, and supplies, total.....	.....	(X)	141,679	(NA)	(NA)
	Mill shapes and forms (except casting):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	14,425	3,284	(NA)	(NA)
331012	Sheet and strip.....	do.....	21,246	3,227	(NA)	(NA)
331013	Plates.....	do.....	3,549	679	(NA)	(NA)
331017	Wire and wire products.....	do.....	858	346	(NA)	(NA)
331015	Structural shapes.....	do.....	200,284	40,186	(NA)	(NA)
331019	All other carbon steel mill shapes and forms.....	do.....				
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	do.....	1,521	808	(NA)	(NA)
331029	All other alloy steel mill shapes and forms.....	do.....	10,005	6,850	(NA)	(NA)
331031	Stainless steel.....	do.....	2,832	5,391	(NA)	(NA)
	Copper and copper-base alloy:					
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	800	509	(NA)	(NA)
335123	Plate, sheet, and strip (including military cups and discs)....	do.....				
335127	Pipe and tube.....	do.....	12,397	7,034	(NA)	(NA)
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	do.....	223	134	(NA)	(NA)
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	do.....	4,895	3,193	(NA)	(NA)
335209	All other aluminum mill shapes and forms (wire, rolled, rod, and bar, powder welded tubing, etc.).....	do.....	836	582	(NA)	(NA)
	Castings (rough and semifinished) <sup>1</sup> :					
332011	Iron (gray and malleable).....	Short tons.....	4,641	1,851	(NA)	(NA)
332300	Steel.....	do.....	1,329	1,056	(NA)	(NA)
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	1,245	723	(NA)	(NA)
336200	Copper and copper-base alloy.....	do.....	676	425	(NA)	(NA)
339100	Iron and steel forgings <sup>1</sup> .....	Short tons.....	2,082	1,409	(NA)	(NA)
349401	Valves and pipe fittings (except plumbers brass goods and fittings)	do.....	(X)	9,892	(NA)	(NA)
333010	Nonferrous plating metals (chromium nickel, zinc, etc.).....	do.....	(X)	828	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	30,921	(NA)	(NA)
976000	Materials, parts, etc., n.s.k. <sup>2</sup> .....	.....	(X)	22,351	(NA)	(NA)
			INDUSTRY 3499.—FABRICATED METAL PRODUCTS, N.E.C.			
	Materials, containers, supplies, etc., total.....	.....	(X)	235,976	(NA)	(NA)
	Mill shapes and forms (except steel casting):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	41,387	6,490	(NA)	(NA)
331013	Plates.....	do.....	23,460	3,548	(NA)	(NA)
331012	Sheet and strip.....	do.....	303,129	47,842	(NA)	(NA)
331015	Structural shapes.....	do.....	15,585	2,278	(NA)	(NA)
331017	Wire and wire products.....	do.....	8,404	2,276	(NA)	(NA)
331019	All other carbon steel mill shapes and forms.....	do.....	36,094	7,687	(NA)	(NA)
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	do.....	2,413	1,104	(NA)	(NA)
331029	All other alloy steel mill shapes and forms.....	do.....	26,500	4,423	(NA)	(NA)
331031	Stainless steel.....	do.....	2,784	3,513	(NA)	(NA)
	Copper and copper-base alloy:					
335728	Bare wire for electrical conduction.....	.....	(D)	(D)	(NA)	(NA)
335790	Insulated wire and cable.....	.....				
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	1,544	690	(NA)	(NA)
335123	Plate, sheet, and strip (including military cups and discs)....	do.....	2,211	1,176	(NA)	(NA)
	Pipe and tube.....	do.....	2,413	1,353	(NA)	(NA)
335127	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	do.....	6,943	3,572	(NA)	(NA)

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
	Mill shapes and forms (except castings)—Continued		INDUSTRY 3499.—FABRICATED METAL PRODUCTS, N.E.C.—Continued			
	Aluminum and aluminum-base alloy—Continued					
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	1,000 lbs.....	10,934	5,687	(NA)	(NA)
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded, tubing, etc.).....	...do.....	3,113	1,445	(NA)	(NA)
	Castings (rough and semifinished): <sup>1</sup>					
332011	Iron (gray and malleable).....	Short tons.....	4,782	1,866	(NA)	(NA)
332300	Steel.....	...do.....	5,035	3,216	(NA)	(NA)
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	1,489	1,253	(NA)	(NA)
336200	Copper and copper-base alloy.....	...do.....	1,815	1,054	(NA)	(NA)
339100	Iron and steel forgings <sup>1</sup> .....	Short tons.....	659	362	(NA)	(NA)
349401	Valves and pipe fittings (except plumbers' brass goods and fittings).....	.....	(X)	224	(NA)	(NA)
333010	Nonferrous plating metals (chromium, nickel, zinc, etc.).....	.....	(X)	2,290	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	81,814	(NA)	(NA)
976000	Materials, containers, supplies, n.s.k. <sup>2</sup> .....	.....	(X)	50,813	(NA)	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Does not include tonnages of castings or forgings produced and consumed in the same establishment.

<sup>2</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not reported and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

<sup>3</sup>In 1963, 258,392 short tons of iron castings, 6,003 short tons of steel castings, and 122,917 thousand pounds of copper and copper-base alloy castings were produced and consumed in the same establishment. 1963 data for aluminum and aluminum-base alloy castings produced and consumed in the same establishment are not available. The comparable figure for copper and copper-base alloy castings in 1958 is 61,231 thousand pounds. Data for other types of castings produced and consumed in the same establishment are not available for 1958.

<sup>4</sup>3,934 short tons of forgings were produced and consumed in the same establishment in 1958. The comparable data for 1963 are not available.

<sup>5</sup>Data on total consumption of aluminum foil are available, by end use, in Current Industrial Reports Series M34P, Aluminum Foil Converted. The data in the Current Industrial Report include consumption by all establishments such as foil mills, foil converters, and others including food processing and other establishments converting foil for purposes of packaging a product. Data in this report are limited to establishments classified in the metal foil and leaf industry.

TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

Item	Fabricated wire products, n.e.c. (SIC 3481)	Metal barrels, drums, and pails (SIC 3491)	Safes and vaults (SIC 3492)	Steel springs (SIC 3493)	Valves and pipe fittings (SIC 3494)	Collapsible tubes (SIC 3496)	Fabricated pipe and fittings (SIC 3498)	Fabricated metal products, n.e.c. (SIC 3499)
Total cost of purchased fuels and electric energy .....\$1,000..	11,578	4,096	467	3,081	17,843	632	3,126	5,759
Total cost of purchased fuels.....do....	4,980	2,077	216	1,975	8,220	194	1,352	2,121
Bituminous coal, lignite, and anthracite:								
Quantity.....1,000 short tons..	23	(S)	(S)	(S)	115	-	(S)	10
Cost.....\$1,000..	203	(S)	(S)	(S)	793	-	(S)	89
Coke and breeze:								
Quantity.....1,000 short tons..	(S)	-	-	-	39	-	-	-
Cost.....\$1,000..	(S)	-	-	-	1,190	-	-	-
Fuel oil (distillate and residual):								
Quantity.....1,000 barrels of 42 gallons..	286	(S)	(S)	38	609	(S)	64	120
Cost.....\$1,000..	1,142	(S)	(S)	120	2,367	(S)	274	547
Gas (natural, manufactured, still, blast furnace, and coke oven):								
Quantity.....million cu.ft..	4,064	1,884	170	2,931	6,669	173	999	1,060
Cost.....\$1,000..	2,692	1,302	121	1,795	3,458	142	735	768
Other fuels.....do....	941	172	(S)	55	412	(S)	316	717
Electric energy:								
Purchased:								
Quantity.....million kw.-hrs..	384	120	18	84	637	32	87	207
Cost.....\$1,000..	6,598	2,019	251	1,106	9,623	438	1,774	3,638
Generated less sold.....million kw.-hrs..	-	-	-	-	(S)	-	-	(S)
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	259	125	17	57	584	9	93	178
Prime movers, total.....do....	23	12	1	8	37	-	4	15
Driving generators.....do....	2	3	-	4	11	-	1	4
Not driving generators.....do....	21	9	1	4	26	-	3	11
Electric motors, total.....do....	236	113	16	48	549	9	90	165
Driven by purchased energy.....do....	236	113	16	48	546	9	90	163
Driven by energy generated at establishment.....do....	-	-	-	-	3	-	-	1
Aggregate horsepower per 100 production workers.....	535	1,637	821	1,038	1,011	248	1,069	975

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3481-	FABRICATED WIRE PRODUCTS, N.E.C.										
	Entire industry.....	1,567	55,514	297,626	45,070	92,096	213,329	539,137	490,937	1,030,876	24,795
	Establishments with—										
	90% or more specialization.....	1,424	45,341	239,119	37,004	75,139	172,387	438,502	400,966	840,067	19,011
	75-89% specialization.....	53	3,966	24,109	3,096	6,501	16,675	42,255	35,955	78,237	2,174
34811	Noninsulated ferrous wire rope, cable and strand not produced by wire drawers (primary product class of estab.).....	41	2,743	16,563	1,999	3,963	10,769	38,212	49,816	88,088	1,888
	Establishments with—										
	90% or more specialization....	37	2,482	15,122	1,807	3,634	10,013	34,963	45,826	80,508	1,718
34812	Precision mechanical springs (primary product class of estab.)....	113	9,216	55,790	7,358	15,523	39,546	89,111	66,912	156,079	4,071
	Establishments with—										
	90% or more specialization....	84	5,065	28,978	4,172	8,759	20,479	45,603	34,561	80,273	1,774
	75-89% specialization.....	9	1,531	9,761	1,156	2,371	6,598	15,784	12,007	27,733	465
34813	Other wire springs (primary product class of estab.).....	173	13,759	73,267	11,787	23,417	55,620	115,948	109,816	226,565	5,293
	Establishments with—										
	90% or more specialization....	147	11,115	58,343	9,510	18,640	44,429	91,368	83,856	176,158	4,165
	75-89% specialization.....	8	1,349	8,699	1,181	2,382	6,543	13,951	11,361	25,350	(D)
34814	Ferrous wire cloth and other woven nonferrous wire products, not produced by wire drawers (primary product class of estab.)....	77	2,221	12,869	1,752	3,605	8,718	24,184	19,730	43,858	1,668
	Establishments with—										
	90% or more specialization....	55	1,275	6,786	1,061	2,177	5,038	11,628	10,238	21,866	589
	75-89% specialization.....	11	273	1,655	180	339	754	2,322	3,064	5,431	224
34815	Nonferrous wire cloth and other woven nonferrous wire products, not made by wire drawers (primary product class of estab.).....	39	2,188	12,084	1,843	3,644	8,964	29,408	18,820	48,162	1,281
	Establishments with—										
	90% or more specialization....	30	1,394	8,246	1,156	2,301	6,023	22,369	10,171	32,251	770
34816	Fencing and fence gates, not produced by wire drawers (primary product class of estab.).....	83	2,347	12,466	1,773	3,709	8,693	28,868	40,205	69,521	721
	Establishments with—										
	90% or more specialization....	66	1,663	8,572	1,235	2,595	5,709	22,656	29,575	51,986	508
34819	Other fabricated wire products, not produced by wire drawers (primary product class of estab.).....	395	18,546	96,055	14,953	30,953	67,292	179,064	153,142	331,392	6,840
	Establishments with—										
	90% or more specialization....	304	13,089	65,484	10,628	22,016	47,274	126,132	106,002	230,610	5,064
	75-89% specialization.....	37	1,863	10,487	1,477	2,977	7,083	18,794	21,301	40,621	723
3491-	METAL BARRELS, DRUMS, AND PAILS										
	Entire industry.....	145	10,508	66,614	8,480	17,713	49,127	119,617	183,880	303,423	6,412
	Establishments with—										
	90% or more specialization..	127	8,211	51,779	6,674	13,582	38,216	90,534	149,682	239,526	5,259
	75-89% specialization.....	8	986	7,075	737	1,756	5,041	12,341	16,797	29,703	510
34911	Steel shipping pails (1 to 12 gallon capacity) (primary product class of estab.).....	16	1,807	10,919	1,487	3,203	8,253	20,644	25,219	45,983	999
	Establishments with—										
	90% or more specialization....	10	753	3,942	648	1,332	3,171	7,555	9,398	16,861	272

See footnotes at end of table.

**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued**

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3491-	METAL BARRELS, DRUMS, AND PAILS—Continued										
34912	Steel shipping barrels and drums (over 12 gallon capacity), except beer barrels (primary product class of estab.).....	82	6,688	44,789	5,410	11,213	33,401	79,243	139,516	218,086	4,421
	Establishments with—										
	90% or more specialization....	46	2,487	15,974	2,052	4,256	11,972	31,030	59,177	89,714	1,125
	75-89% specialization.....	15	1,199	8,114	990	2,059	6,209	14,359	21,654	36,055	832
34913	All other metal barrels, including beer barrels and fluid milk shipping containers (primary product class of estab.).....	24	1,645	9,026	1,282	2,593	6,025	16,540	14,639	31,768	697
	Establishments with—										
	90% or more specialization....	17	958	5,556	725	1,451	3,392	10,485	6,760	17,234	430
3494-	VALVES AND PIPE FITTINGS										
	Entire industry.....	646	80,407	500,009	58,148	116,929	321,239	942,700	651,964	1,588,509	38,951
	Establishments with—										
	90% or more specialization..	510	51,555	308,517	38,302	77,188	207,905	598,382	395,032	995,659	25,053
	75-89% specialization.....	36	9,094	59,382	6,444	12,828	37,118	106,119	72,895	180,082	3,300
34941	Metal valves for piping systems (except plumbing and heating valves) (primary product class of estab.).....	174	37,342	228,185	26,170	53,397	146,201	450,776	275,821	729,719	15,584
	Establishments with—										
	90% or more specialization....	113	21,272	125,704	15,139	31,243	83,325	258,773	158,602	421,613	9,546
	75-89% specialization.....	17	5,773	36,010	4,188	7,960	24,129	63,565	35,133	100,488	1,090
34942	Metal fittings and unions for piping systems (primary product class of estab.).....	106	24,131	152,413	18,504	36,167	103,604	277,495	222,370	490,460	9,784
	Establishments with—										
	90% or more specialization....	61	7,761	46,009	6,434	12,777	33,822	83,358	74,497	155,308	3,552
	75-89% specialization.....	10	3,412	19,971	2,847	5,031	15,727	48,278	30,494	76,852	1,077
34943	Plumbing and heating valves and specialties, except plumbers' brass goods (primary product class of estab.).....	50	4,301	24,917	3,363	6,609	16,338	45,176	40,853	85,676	1,447
	Establishments with—										
	90% or more specialization....	26	1,727	10,102	1,367	2,655	6,711	18,296	14,995	33,398	716
	75-89% specialization.....	8	642	3,638	514	1,069	2,704	5,491	4,331	9,887	147
34944	Other metal valves and fittings, except plumbers' brass goods and fittings (primary product class of estab.).....	173	13,202	86,959	5,986	18,496	49,459	155,420	102,494	258,446	10,909
	Establishments with—										
	90% or more specialization....	120	7,676	51,754	5,393	11,205	30,440	86,652	54,318	142,944	4,714
	75-89% specialization.....	13	1,280	8,533	892	1,843	5,003	18,857	11,922	31,290	397
3496-	COLLAPSIBLE TUBES										
	Entire industry.....	24	3,984	18,804	3,540	6,923	14,771	30,562	20,396	51,027	1,925
	Establishments with—										
	90% or more specialization..	20	2,701	12,170	2,376	4,645	9,206	18,321	12,655	31,023	1,328
3497-	METAL FOIL AND LEAF										
	Entire industry.....	67	4,981	32,438	3,733	7,831	21,775	63,486	117,887	180,567	6,410
	Establishments with—										
	90% or more specialization..	52	3,665	24,635	2,694	5,705	16,588	48,925	89,936	138,081	5,490
	75-89% specialization.....	3	131	785	103	246	564	1,428	2,414	3,804	164
3499-	FABRICATED METAL PRODUCTS, N.E.C.										
	Entire industry.....	1,277	28,302	151,919	22,209	45,673	105,063	299,326	276,264	573,185	16,189
	Establishments with—										
	90% or more specialization..	1,088	19,405	101,321	15,453	31,666	71,040	213,712	197,656	409,696	9,345
	75-89% specialization.....	52	2,193	12,310	1,646	3,368	8,409	24,388	26,631	50,666	990

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.



TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3481.—FABRICATED WIRE PRODUCTS, N.E.C.							
Galvanizing and other hot dip coating.....	40	26	12	2	219	60	(D)	(D)
Heat treating of metals.....	115	85	28	2	450	125	(D)	(D)
Automatic screw machine department.....	14	10	2	2	92	17	(D)	(D)
Machine shop.....	192	116	67	9	1,065	209	555	301
Tool and die shop.....	168	118	46	4	714	213	405	96
Plate or structural fabrication.....	14	7	5	2	203	14	(D)	(D)
Stamping, blanking, and forming of metals.....	310	144	102	64	4,881	280	986	3,615
Painting, lacquering, and enameling on metals.....	213	176	34	3	671	289	288	94
	INDUSTRY 3491.—METAL BARRELS, DRUMS, AND PAILS							
Galvanizing and other hot dip coating.....	6	-	6	-	56	-	56	-
Machine shop.....	44	16	22	6	411	33	199	179
Tool and die shop.....	9	8	-	1	58	(D)	-	(D)
Plate or structural fabrication.....	12	-	10	2	256	-	(D)	(D)
Stamping, blanking, and forming of metals.....	76	18	25	33	2,205	42	226	1,937
Painting, lacquering, and enameling on metals.....	84	41	34	9	680	87	303	290
	INDUSTRY 3492.—SAFES AND VAULTS							
Electroplating and other plating.....	2	-	1	1	(D)	-	(D)	(D)
Heat treating of metals.....	2	2	-	-	(D)	(D)	-	-
Machine shop.....	10	4	3	3	(D)	(D)	(D)	(D)
Tool and die shop.....	4	1	2	1	(D)	(D)	(D)	(D)
Plate or structural fabrication.....	7	3	2	2	(D)	(D)	(D)	(D)
Stamping, blanking, and forming of metals.....	9	4	3	3	167	9	(D)	(D)
Painting, lacquering, and enameling on metals.....	10	8	1	1	50	(D)	(D)	(D)
	INDUSTRY 3493.—STEEL SPRINGS							
Ferrous foundry.....	4	-	1	3	(D)	-	(D)	(D)
Forging—presses, hammers, or upsetters.....	17	6	7	4	276	11	64	201
Electroplating and other plating.....	1	1	-	-	(D)	(D)	-	-
Heat treating of metals.....	44	24	12	8	575	41	120	414
Machine shop.....	26	14	10	2	168	30	(D)	(D)
Tool and die shop.....	15	7	7	1	96	10	(D)	(D)
Plate or structural fabrication.....	1	1	-	-	(D)	(D)	-	-
Stamping, blanking, and forming of metals.....	30	13	8	9	650	25	71	554
Painting, lacquering, and enameling on metals.....	31	25	6	-	88	45	43	-
	INDUSTRY 3494.—VALVES AND PIPE FITTINGS							
Ferrous foundry.....	42	4	6	32	4,728	4	53	4,671
Nonferrous foundry (except die casting).....	71	13	17	41	3,177	10	169	2,998
Forging—presses, hammers, or upsetters.....	28	10	12	6	818	11	142	665
Electroplating and other plating.....	36	23	9	4	349	34	82	233
Galvanizing and other hot dip coating.....	21	11	6	4	285	24	72	189
Heat treating of metals.....	68	52	13	3	369	86	121	162
Automatic screw machine department.....	113	56	34	23	1,779	113	285	1,381
Machine shop.....	364	58	111	195	18,851	96	1,227	17,528
Tool and die shop.....	176	75	72	29	1,958	166	653	1,139
Foundry pattern shop.....	81	46	31	4	492	91	289	112
Plate or structural fabrication.....	44	18	12	14	817	36	132	649
Stamping, blanking, and forming of metals.....	79	51	17	11	733	97	145	491
Painting, lacquering, and enameling on metals.....	155	134	17	4	480	222	167	91
	INDUSTRY 3496.—COLLAPSIBLE TUBES							
Machine shop.....	16	2	9	5	328	(D)	(D)	220
Stamping, blanking, and forming of metals.....	17	5	5	7	450	17	37	396
Painting, lacquering, and enameling on metals.....	16	-	2	14	813	-	(D)	(D)
	INDUSTRY 3497.—METAL FOIL AND LEAF							
Machine shop.....	11	5	2	4	222	(D)	(D)	186
Stamping, blanking, and forming of metals.....	10	2	4	4	401	(D)	(D)	351
Painting, lacquering, and enameling on metals.....	5	1	4	-	39	(D)	(D)	-

See footnotes at end of table.

TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963—Continued

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3498.—FABRICATED PIPE AND FITTINGS							
Ferrous foundry.....	1	1	-	-	(D)	(D)	-	-
Nonferrous foundry (except die casting).....	5	2	3	-	31	(D)	(D)	-
Nonferrous die casting.....	1	1	-	-	(D)	(D)	-	-
Forging—presses, hammers, or upsetters.....	6	3	1	2	70	(D)	(D)	(D)
Electroplating and other plating.....	10	7	2	1	48	(D)	(D)	(D)
Galvanizing and other hot dip coating.....	6	6	-	-	19	19	-	-
Heat treating of metals.....	21	18	3	-	52	34	18	-
Automatic screw machine department.....	17	5	6	6	283	9	51	223
Machine shop.....	74	35	31	8	729	65	344	320
Tool and die shop.....	20	15	4	1	90	29	(D)	(D)
Foundry pattern shop.....	6	6	-	-	10	10	-	-
Plate or structural fabrication.....	23	8	13	2	185	18	(D)	(D)
Stamping, blanking, and forming of metals.....	36	16	14	6	450	27	120	303
Painting, lacquering, and enameling on metals.....	31	27	4	-	67	42	25	-
	INDUSTRY 3499.—FABRICATED METAL PRODUCTS, N.E.C.							
Ferrous foundry.....	10	2	4	4	204	(D)	(D)	177
Nonferrous foundry (except die casting).....	18	6	10	2	184	10	(D)	(D)
Nonferrous die casting.....	10	4	6	-	64	8	56	-
Forging—presses, hammers, or upsetters.....	15	11	4	-	55	18	37	-
Electroplating and other plating.....	31	18	11	2	182	24	(D)	(D)
Galvanizing and other hot dip coating.....	8	6	2	-	23	(D)	(D)	-
Heat treating of metals.....	38	28	7	3	175	51	52	72
Automatic screw machine department.....	22	14	5	3	135	25	42	68
Machine shop.....	169	102	46	21	1,505	186	400	919
Tool and die shop.....	99	74	20	5	411	116	160	135
Foundry pattern shop.....	21	17	3	1	59	21	(D)	(D)
Plate or structural fabrication.....	89	36	34	19	7,243	53	372	6,818
Stamping, blanking, and forming of metals.....	277	125	110	42	22,862	237	1,054	21,571
Painting, lacquering, and enameling on metals.....	203	165	38	-	575	232	343	-

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below.

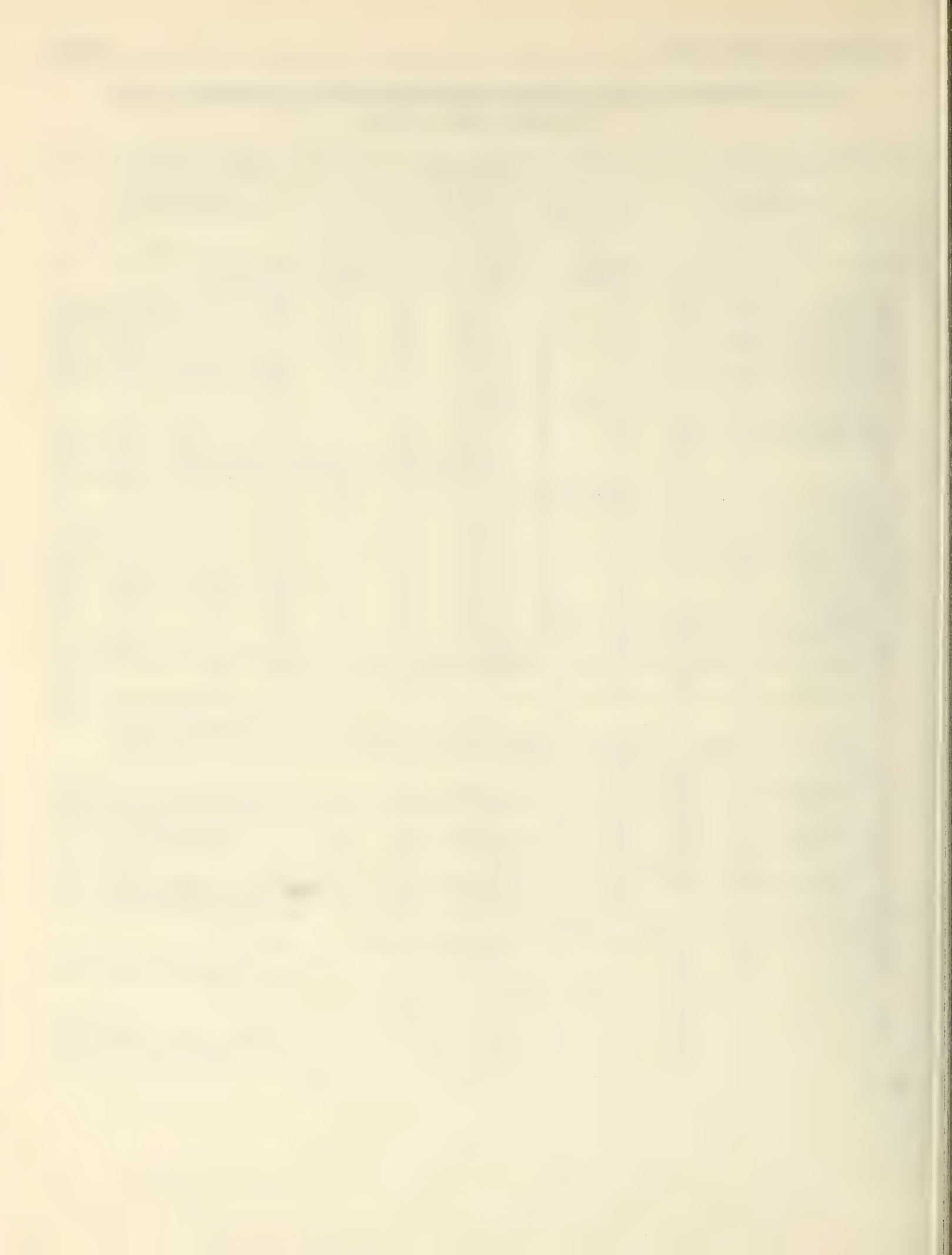
Item	Industry								
	3481	3491	3492	3493	3494	3496	3497	3498	3499
Total number of establishments in the industry.....	1,567	145	32	96	646	24	67	349	1,277
Number of establishments which reported one or more of the specified operations.....	487	94	13	52	414	17	17	112	435
Percent of industry production workers in these establishments	60-65	80-85	90-95	85-90	90-95	95-100	45-50	60-65	50-55
Number of establishments which reported "none" of the operations apply.....	176	9	-	7	33	1	17	67	67
Percent of industry production workers in these establishments	5-10	0-5	-	0-5	0-5	0-5	15-20	15-20	0-5
Percent of industry production workers in establishments which completed metalworking operations inquiry.....	70-75	85-90	90-95	85-90	95-100	95-100	60-65	75-80	50-55

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.e.c. Not elsewhere classified.

<sup>1</sup>These size groups are based on the number of production workers in the specified operation. They are not based on total employment of the establishment.





## Machinery, Except Electrical

- 35A Engines and turbines and farm machinery and equipment
- 35B Construction, mining, and materials handling machinery and equipment
- 35C Metalworking machinery and equipment
- 35D Special industry machinery, except metalworking machinery
- 35E General industrial machinery and equipment
- 35F Office, computing, and accounting machines
- 35G Service industry machines and machine shops

This major group includes establishments primarily engaged in producing a wide variety of machinery and equipment items. The industries included in this major group encompass the whole range of industrial machinery, other than electrical. To a considerable extent, the products fall into the producers' heavy equipment category, are frequently of a complex character, and are produced both to individual order and as standard items. Industries in groups 351 to 358 are defined in terms of end products, and the parts, attachments, and accessories for these items are included in the industry of this end product unless specifically classified elsewhere in the Standard Industrial Classification. The volume of shipments of machinery parts and accessories in some industries constitutes a significant portion of total shipments. These parts producers are generally smaller establishments but there are a large number of them. Group 359, Machine Shops, includes plants producing a broad variety of miscellaneous parts made by job machine shops.

Group 352 includes farm machines and wheel-tractors, while group 353 comprises all types of earth-moving equipment, including tracklaying tractors and contractors' off-highway type tractors, mining machinery, and materials-handling equipment. The end products of plants in groups 351 to 356 are usually capital equipment, bought and used, not only by manufacturing companies but also at mines, farms, and in transportation, construction and commerce. Groups 357 and 358 include products for commercial and service use such as measuring and

dispensing pumps, office and store machines, and commercial refrigeration equipment.

Plants primarily engaged in rebuilding machinery or equipment on a factory basis were formerly included in this major group. However, such rebuilding activities are now classified according to the original industry classification of the product being rebuilt. Plants primarily rebuilding automotive parts are included in Major Group 37. Plants primarily rebuilding machine tools, metalworking machinery, and office and store machines are included in the industry of the plants producing the original equipment. Table 6A for each industry will show the industries in which rebuilding activities are included with the volume of such rebuilding.

The individual establishments within Major Group 35 frequently produce products falling into two or more SIC 4-digit industries. In fact, many of the larger establishments produce a significant amount of products secondary to the industry in which they are classified. These secondary products however, tend to be similar to the primary products of the establishment in the material used in their manufacture, type of labor employed to produce them, and nature of the processes involved in the production line.

Establishments in this group of industries typically maintain machine shops, tool and die rooms, and heat-treating facilities. Frequently the establishment, particularly if it is of some size, will also operate a pattern shop, screw-machine department, and stamping facility. With



greater variation depending upon the particular 4-digit industry, the physical plant may contain a foundry, forge shop, plate fabrication, electroplating, galvanizing, or other metal processing department. Data on the number of establishments engaged in a selected number of the more important of these operations and the number of employees working in the operations are shown in table 9 for each of the 4-digit industries in this major group. The metalworking operations shown in that table do not represent, of course, a complete list or, for many metal fabricating industries, even those which are most important. There are a number of significant activities such as assembly, subassembly, finishing, etc., which were covered only for selected industries.

Although the production processes in this area adhere to a general pattern of specified metalworking and metal fabricating operations, there is a substantial variation in the number and types of processes performed by an individual establishment as well as from industry to industry. Within a single 4-digit industry, certain establishments may be exclusively engaged in assembling component parts produced by other plants. Another group of plants may purchase rough castings or mill shapes and carry out the entire fabricating of the metal until it emerges as a finished product. In other instances, the casting of the metal will be performed by the establishment itself.

## MACHINERY, EXCEPT ELECTRICAL: MAJOR GROUP 35

Value Added by Manufacture by State: 1963

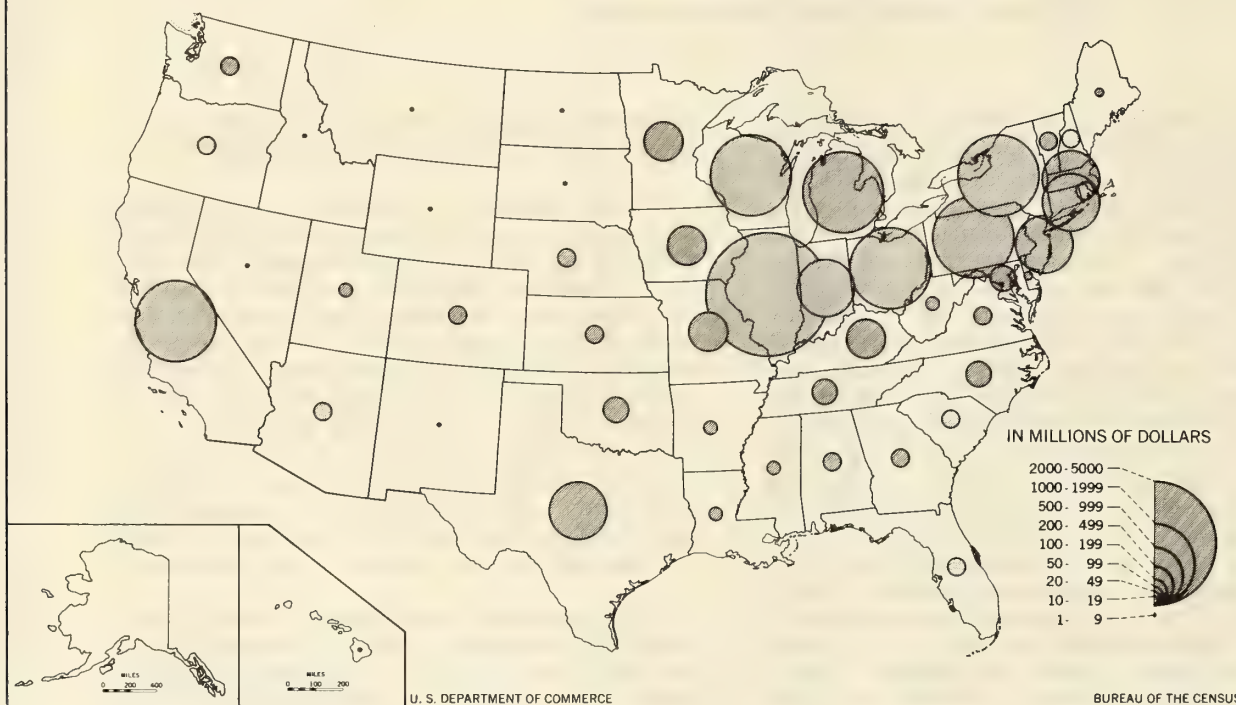


TABLE 1. General Statistics: 1963 and Earlier Years

Year and item	Establishments		All employees <sup>1</sup>		Production workers			Value added by manufacture, adjusted <sup>2</sup>	Cost of materials <sup>3</sup>	Value of shipments <sup>3</sup>	Capital expenditures, new <sup>4</sup>
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
<b>ALL MANUFACTURING ESTABLISHMENTS, TOTAL:</b>											
1963 . . . . .	34 097	8 642	1 520 574	10 146 582	1 045 075	2 151 057	6 209 341	17 310 599	13 254 179	30 363 095	783 076
1958 . . . . .	30 154	7 513	1 385 781	7 577 634	956 156	1 855 745	4 654 138	12 414 069	(NA)	27 797 650	669 564
1954 . . . . .	(NA)	(NA)	1 573 851	7 389 954	1 170 629	2 368 274	4 977 213	12 333 350	(NA)	(NA)	713 556
<b>ADMINISTRATIVE AND AUXILIARY UNITS:</b>											
1963 . . . . .	394	216	61 197	575 598	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1958 . . . . .	286	150	35 524	263 373	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1954 . . . . .	(NA)	(NA)	33 105	203 721	(X)	(X)	(X)	(X)	(X)	(X)	(X)
<b>OPERATING MANUFACTURING ESTABLISHMENTS:</b>											
1963 . . . . .	33 703	8 426	1 459 377	9 570 984	1 045 075	2 151 057	6 209 341	17 310 599	13 254 179	30 363 095	783 076
1958 . . . . .	29 868	7 363	1 350 257	7 314 261	956 156	1 855 745	4 654 138	12 414 069	(NA)	27 797 650	669 564
1954 . . . . .	25 600	7 521	1 540 746	7 186 233	1 170 629	2 368 274	4 977 213	12 333 350	(NA)	(NA)	713 556
<b>OPERATING MANUFACTURING ESTABLISHMENTS:</b>											
1962 . . . . .	(NA)	(NA)	1 451 278	9 201 791	1 035 298	2 100 562	5 825 265	16 105 983	12 440 343	28 294 263	717 871
1961 . . . . .	(NA)	(NA)	1 382 411	8 405 136	984 247	1 960 603	5 247 547	14 240 131	11 326 989	25 688 703	657 982
1960 . . . . .	(NA)	(NA)	1 426 382	8 481 815	1 014 031	2 045 328	5 397 625	14 410 254	(NA)	(NA)	700 580
1959 . . . . .	(NA)	(NA)	1 414 200	8 202 627	1 022 390	2 061 834	5 309 556	14 582 348	(NA)	(NA)	606 947
1957 . . . . .	(NA)	(NA)	1 706 530	9 045 579	1 265 102	2 571 228	6 058 073	15 971 932	(NA)	(NA)	991 203
1956 . . . . .	(NA)	(NA)	1 716 802	8 897 214	1 308 154	2 716 843	6 155 787	16 176 102	(NA)	(NA)	887 580
1955 . . . . .	(NA)	(NA)	1 603 977	7 811 930	1 222 441	2 512 534	5 437 889	13 752 931	(NA)	(NA)	653 094
1953 . . . . .	(NA)	(NA)	1 691 235	7 875 812	1 307 312	2 743 740	5 685 694	13 380 729	(NA)	(NA)	754 739
1952 . . . . .	(NA)	(NA)	1 650 772	7 379 879	1 283 664	2 732 879	5 351 952	12 807 480	(NA)	(NA)	(NA)
1951 . . . . .	18 734	(NA)	1 603 987	6 729 242	1 260 244	2 693 220	4 914 128	11 218 656	(NA)	(NA)	631 373
1950 . . . . .	17 909	(NA)	1 367 882	5 063 088	1 064 266	2 182 848	3 609 065	8 764 652	(NA)	(NA)	337 212
1949 . . . . .	(NA)	(NA)	1 295 091	4 559 083	1 004 938	2 012 901	3 175 423	7 688 711	(NA)	(NA)	350 554
1947 . . . . .	17 910	(NA)	1 552 135	4 830 125	1 248 921	2 591 220	3 610 392	7 833 970	(NA)	(NA)	517 589
1939 . . . . .	8 860	(NA)	(NA)	(NA)	536 082	(NA)	769 569	2 036 965	(NA)	(NA)	(NA)
1937 . . . . .	7 327	(NA)	(NA)	(NA)	653 461	(NA)	969 679	2 365 788	(NA)	(NA)	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The figures for 1939 through 1963 include data for employees of manufacturing establishments who were engaged in distribution and construction work. The extent to which data for such employees are included in the figures for 1937 is not known.

<sup>2</sup>For 1954 to 1958 represents adjusted value added. For 1953 and earlier years represents unadjusted value added. See text for more detailed explanation.

<sup>3</sup>The total value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry classification. For a more complete explanation, see Introduction.

<sup>4</sup>The figures for 1958 to 1963 include expenditures for plants under construction and not yet in operation.

<sup>5</sup>Data for number of employees at manufacturers' central administrative offices and auxiliary units are shown in this table for 1954, 1958, and 1963 and for 1949 to 1953 in annual survey of manufactures volumes. Data for such employees are not available for 1955 to 1957 and for the years prior to 1949.

<sup>6</sup>These figures represent estimates derived from a representative sample of manufac-

turing establishments canvassed in the annual survey of manufactures. These estimates, consequently, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>7</sup>The figures for 1939 to 1963 are not entirely comparable with those for 1937 because the 1937 figures (a) include data for establishments primarily engaged in the manufacture of thermostats and gauges, heat treating of steel, machine knives, and tackle blocks, and (b) exclude data for establishments primarily engaged in the manufacture of vacuum cleaners, turbo-generators and water-wheel generator sets, hair clippers for animal use, brooders, nonferrous bearings, certain industrial furnaces and ovens, time-stamps and time-recording machines, dictating machines, certain valves and fittings (except plumbers') and caulking guns. Value added by manufacture for 1939 on a basis strictly comparable with 1937 was \$1,989.6 million.

<sup>8</sup>The figures prior to 1937 are not sufficiently comparable to those for later years to be shown in this table principally because they include data for establishments primarily engaged in the manufacture of aircraft engines and in machine shop repairs.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted, (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
		Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
35	MACHINERY, EXCEPT ELECTRICAL, TOTAL.	33 703	8 426	1 459 377	9 570 984	1 045 075	2 151 057	6 209 341	17 310 599	783 076	1 350 257	12 414 069
	NORTHEAST . . . . .	9 680	2 351	452 516	2 965 443	316 745	651 559	1 862 974	5 088 199	243 140	458 893	3 946 449
	NEW ENGLAND . . . . .	3 017	747	151 581	956 372	109 911	226 909	624 193	1 646 609	72 549	150 126	1 226 859
	MAINE . . . . .	74	18	1 815	9 107	1 343	2 746	5 959	12 900	477	2 862	13 531
	NEW HAMPSHIRE . . . . .	120	31	8 002	46 712	5 791	12 754	29 405	78 269	3 927	7 147	59 727
	VERMONT . . . . .	64	22	6 398	39 925	4 507	9 141	24 248	68 140	2 821	6 134	41 155
	MASSACHUSETTS . . . . .	1 388	384	67 673	430 873	47 469	97 886	272 875	714 596	31 713	66 266	558 375
	RHODE ISLAND . . . . .	253	44	9 106	53 755	6 338	12 640	32 975	88 643	3 561	8 249	60 989
	CONNECTICUT . . . . .	1 118	248	58 587	376 000	44 463	91 742	258 731	684 061	30 050	59 468	493 082
	MIDDLE ATLANTIC . . . . .	6 663	1 604	300 935	2 009 071	206 834	424 650	1 238 781	3 441 590	170 591	308 767	2 719 590
	NEW YORK . . . . .	2 861	635	131 599	898 016	88 125	180 828	533 438	1 494 226	74 896	139 103	1 180 700
	NEW JERSEY . . . . .	1 846	399	56 729	378 203	40 297	84 424	247 135	689 700	28 151	57 517	519 371
	PENNSYLVANIA . . . . .	1 956	570	112 607	732 852	78 412	159 398	458 208	1 257 664	67 544	112 147	1 019 519
	NORTH CENTRAL . . . . .	13 184	3 898	730 574	4 908 691	532 831	1 099 589	3 296 071	9 090 081	397 662	667 966	6 396 439
	EAST NORTH CENTRAL . . . . .	10 931	3 238	617 919	4 211 171	452 981	937 623	2 853 294	7 694 893	327 495	575 522	5 553 451
	OHIO . . . . .	2 767	829	165 200	1 108 828	120 111	247 557	744 709	1 991 426	83 231	157 461	1 410 508
	INDIANA . . . . .	1 012	278	54 501	349 123	40 282	82 173	235 880	678 261	33 988	45 954	439 517
	ILLINOIS . . . . .	2 730	837	178 573	1 200 568	129 026	265 805	798 826	2 215 971	103 119	164 447	1 723 164
	MICHIGAN . . . . .	3 272	946	134 532	988 791	102 565	217 593	703 664	1 804 594	66 378	126 201	1 213 942
	WISCONSIN . . . . .	1 149	348	85 113	563 861	60 997	124 495	370 215	1 004 641	40 779	81 459	766 320
	WEST NORTH CENTRAL . . . . .	2 253	660	112 655	697 520	79 850	161 966	442 777	1 395 188	70 167	92 444	842 988
	MINNESOTA . . . . .	656	223	37 532	238 727	24 875	51 095	136 604	482 493	31 416	27 888	252 576
	IOWA . . . . .	415	136	35 496	229 484	26 801	53 105	159 493	476 926	21 421	31 274	301 412
	MISSOURI . . . . .	637	166	26 449	158 342	18 475	37 360	100 762	275 562	11 939	20 775	185 897
	NORTH DAKOTA . . . . .	41	4	560	2 688	439	911	1 853	4 528	294	(D)	(D)
	SOUTH DAKOTA . . . . .	32	8	785	4 278	629	1 338	3 006	8 724	246	(D)	(D)
	NEBRASKA . . . . .	157	36	3 354	16 880	2 550	5 280	11 778	49 979	1 415	3 252	27 588
	KANSAS . . . . .	316	87	8 486	47 151	6 087	12 889	29 304	97 032	3 441	8 412	67 823
	SOUTH . . . . .	4 804	1 157	154 610	865 252	114 419	235 126	560 289	1 760 162	78 765	123 534	1 100 544
	SOUTH ATLANTIC . . . . .	1 947	480	59 126	317 933	44 133	90 966	205 427	623 349	28 711	45 249	363 317
	DELAWARE . . . . .	47	10	1 317	10 919	842	1 720	5 262	11 655	1 128	2 143	12 201
	MARYLAND . . . . .	219	60	11 545	72 551	7 996	16 517	43 861	142 105	6 147	10 600	105 275
	DISTRICT OF COLUMBIA . . . . .	16	3	221	1 323	181	376	985	2 193	141	117	1 175
	VIRGINIA . . . . .	182	49	5 764	28 965	4 314	8 862	19 424	58 896	4 009	3 777	28 649
	WEST VIRGINIA . . . . .	139	31	3 919	21 728	3 019	5 812	15 549	36 974	1 712	3 751	28 852
	NORTH CAROLINA . . . . .	412	118	12 070	57 575	9 280	19 384	37 174	117 206	3 956	9 121	68 529
	SOUTH CAROLINA . . . . .	145	48	8 586	43 250	6 740	14 407	30 798	74 135	4 741	3 770	23 918
	GEORGIA . . . . .	303	79	8 914	45 696	6 761	13 648	28 943	86 139	3 737	7 972	66 971
	FLORIDA . . . . .	484	82	6 790	35 926	5 000	10 240	23 431	94 046	3 140	3 998	27 747
	EAST SOUTH CENTRAL . . . . .	784	196	35 597	207 816	27 215	54 796	140 806	435 906	23 458	27 173	244 282
	KENTUCKY . . . . .	205	60	16 156	107 014	12 193	24 004	71 131	231 352	12 278	12 680	132 629
	TENNESSEE . . . . .	271	66	10 045	55 158	7 581	15 303	37 245	108 487	6 415	8 013	64 987
	ALABAMA . . . . .	212	42	5 163	26 711	4 037	8 261	18 429	51 685	2 345	4 387	28 885
	MISSISSIPPI . . . . .	96	28	4 233	18 933	3 404	7 228	14 001	44 382	2 420	2 093	17 781
	WEST SOUTH CENTRAL . . . . .	2 073	481	59 887	339 503	43 071	89 364	214 056	700 907	26 596	51 112	492 945
	ARKANSAS . . . . .	134	36	3 050	13 478	2 444	4 961	9 624	32 757	1 378	1 279	11 172
	LOUISIANA . . . . .	200	45	3 856	20 957	2 917	6 224	14 700	37 544	1 794	3 082	25 228
	OKLAHOMA . . . . .	387	89	11 032	61 180	8 095	16 364	39 618	120 244	5 570	9 334	77 190
	TEXAS . . . . .	1 352	311	41 949	243 888	29 615	61 815	150 114	510 362	17 854	37 417	379 355
	WEST . . . . .	6 032	1 019	121 882	832 251	81 341	165 278	490 313	1 398 365	64 175	99 864	970 637
	MOUNTAIN . . . . .	671	105	15 564	96 118	10 116	20 258	54 611	164 962	7 248	11 639	109 906
	MONTANA . . . . .	34	-	106	546	83	167	448	944	83	108	543
	IDAHO . . . . .	67	8	556	3 112	443	921	2 350	5 050	218	845	8 399
	WYOMING . . . . .	23	-	74	332	59	120	269	809	56	127	1 336
	COLORADO . . . . .	222	43	5 172	31 818	3 844	7 797	22 779	65 722	2 386	4 678	50 543
	NEW MEXICO . . . . .	76	10	635	3 746	483	1 053	2 609	6 274	260	563	4 823
	ARIZONA . . . . .	152	26	5 771	37 775	3 055	5 763	14 404	51 324	3 598	2 998	18 913
	UTAH . . . . .	81	16	3 150	18 218	2 072	4 293	11 835	33 689	596	2 258	25 341
	NEVADA . . . . .	16	2	100	571	77	144	417	1 150	51	62	8
	PACIFIC . . . . .	5 361	914	106 318	736 133	71 225	145 020	435 702	1 233 403	56 927	88 225	860 731
	WASHINGTON . . . . .	352	66	7 011	47 049	5 284	10 331	33 231	73 632	3 012	5 265	52 829
	OREGON . . . . .	311	58	5 575	36 601	3 987	7 861	23 340	69 701	2 105	4 062	38 390
	CALIFORNIA . . . . .	4 664	786	93 308	650 086	61 602	126 115	377 251	1 086 421	51 669	78 665	767 748
	ALASKA . . . . .	8	-	24	169	20	41	150	328	18	(D)	(D)
	HAWAII . . . . .	26	4	400	2 228	332	672	1 730	3 321	123	(D)	(D)
351	ENGINES AND TURBINES, TOTAL. . . . .	165	102	86 604	609 319	61 648	123 929	401 743	1 113 503	54 145	97 351	1 089 086
	NORTHEAST . . . . .	39	25	33 707	252 170	23 177	46 141	161 293	427 288	21 518	41 798	527 042
	NEW ENGLAND . . . . .	14	10	9 858	71 270	6 695	13 126	45 427	119 489	6 202	9 378	112 383
	MIDDLE ATLANTIC . . . . .	25	15	23 849	180 900	16 482	33 015	115 866	307 799	15 316	32 420	414 659
	NEW JERSEY . . . . .	8	3	220	992	196	389	817	1 003	116	(D)	(D)

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
		Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
351	ENGINES AND TURBINES—CONTINUED											
	NORTH CENTRAL . . . . .	84	62	49 250	329 677	36 156	72 811	225 315	638 035	31 126	50 993	506 329
	EAST NORTH CENTRAL . . . . .	67	52	46 798	314 645	34 509	69 614	216 122	618 051	30 392	47 827	479 618
	ILLINOIS . . . . .	9	8	8 551	59 739	5 760	11 040	37 572	97 348	(D)	(D)	(D)
	MICHIGAN . . . . .	22	16	12 747	90 964	9 451	19 537	63 938	182 971	(D)	13 088	131 314
	WISCONSIN . . . . .	22	20	17 224	107 934	13 205	26 444	77 124	200 678	6 570	18 218	183 373
	WEST NORTH CENTRAL . . . . .	17	10	2 452	15 032	1 647	3 197	9 193	19 984	734	3 166	26 711
	SOUTH . . . . .	16	5	617	3 929	495	1 226	2 717	11 917	238	214	1 536
352	FARM MACHINERY AND EQUIPMENT, TOTAL <sup>1</sup>	1 568	558	112 614	689 122	84 650	168 911	476 827	1 328 381	64 431	108 586	1 087 836
353	CONSTRUCTION & LIKE EQUIPMENT, TOTAL	2 259	987	210 959	1 381 298	146 753	299 530	873 169	2 732 269	93 175	199 711	2 054 841
	NORTHEAST . . . . .	392	177	31 110	205 684	19 852	40 994	120 883	429 498	11 425	30 615	342 091
	NEW ENGLAND . . . . .	69	28	3 485	20 459	2 500	5 163	13 227	37 320	1 468	3 588	31 001
	CONNECTICUT . . . . .	15	5	294	1 733	219	444	1 089	2 348	124	320	2 674
	MIDDLE ATLANTIC . . . . .	323	149	27 625	185 225	17 352	35 831	107 656	392 178	9 957	27 027	311 090
	NEW YORK . . . . .	110	51	7 476	49 132	4 853	9 994	29 603	83 693	2 248	4 168	45 240
	NEW JERSEY . . . . .	73	25	6 305	45 477	3 945	8 300	26 442	135 596	2 157	7 485	103 625
	PENNSYLVANIA . . . . .	140	73	13 844	90 616	8 554	17 537	51 611	172 889	5 552	15 374	162 225
	NORTH CENTRAL . . . . .	843	414	123 235	822 372	87 689	177 817	535 654	1 580 079	59 059	115 420	1 171 276
	EAST NORTH CENTRAL . . . . .	643	325	108 089	728 092	77 281	156 169	478 434	1 394 799	50 214	101 602	1 049 825
	OHIO . . . . .	194	107	23 415	153 346	16 021	32 306	95 011	277 315	7 918	24 300	206 230
	INDIANA . . . . .	51	25	4 457	26 428	3 234	6 264	17 825	55 329	1 121	5 047	43 682
	ILLINOIS . . . . .	174	81	52 590	358 010	39 229	79 426	248 732	687 286	31 409	45 196	550 215
	MICHIGAN . . . . .	135	63	12 002	83 331	7 898	15 586	48 976	169 763	4 348	11 683	114 369
	WISCONSIN . . . . .	89	49	15 625	106 977	10 899	22 587	67 890	205 106	5 418	15 376	135 329
	WEST NORTH CENTRAL . . . . .	200	89	15 146	94 280	10 408	21 648	57 220	185 280	8 845	13 818	121 451
	MINNESOTA . . . . .	61	27	5 364	32 760	3 617	7 557	20 297	58 634	3 208	4 523	37 196
	IOWA . . . . .	48	24	5 746	35 883	4 205	8 338	22 289	84 409	2 830	5 823	55 811
	MISSOURI . . . . .	45	19	2 054	13 315	1 370	2 733	7 308	23 041	2 269	1 371	12 611
	KANSAS . . . . .	30	12	1 584	10 067	1 100	2 329	5 663	14 882	452	1 749	12 850
	SOUTH . . . . .	575	243	37 783	225 787	26 270	54 614	136 915	473 994	15 674	36 015	362 596
	SOUTH ATLANTIC . . . . .	123	40	4 603	27 301	3 146	6 360	15 060	59 122	2 717	4 262	39 966
	MARYLAND . . . . .	10	3	632	5 027	251	547	1 300	10 033	(D)	4 485	4 390
	VIRGINIA . . . . .	21	7	461	2 545	360	785	1 647	6 790	332	343	3 168
	GEORGIA . . . . .	16	8	1 342	8 070	1 009	1 970	5 005	19 071	486	1 556	17 099
	EAST SOUTH CENTRAL . . . . .	68	33	4 638	25 451	3 315	7 114	16 112	52 668	1 875	4 501	29 885
	KENTUCKY . . . . .	24	10	1 306	7 706	905	1 854	4 767	13 998	254	919	7 330
	TENNESSEE . . . . .	17	10	1 396	7 700	953	2 032	4 329	15 066	513	1 496	10 632
	ALABAMA . . . . .	17	6	760	4 106	584	1 294	2 803	9 103	480	1 338	6 147
	MISSISSIPPI . . . . .	10	7	1 176	5 939	873	1 934	4 213	14 501	628	748	5 776
	WEST SOUTH CENTRAL . . . . .	384	170	28 542	173 035	19 809	41 140	105 743	362 204	11 082	27 252	292 745
	OKLAHOMA . . . . .	96	36	5 780	33 509	4 226	8 612	22 067	67 696	1 489	5 332	46 428
	TEXAS . . . . .	254	120	21 175	130 684	14 329	29 930	77 474	277 465	8 646	20 706	235 660
	WEST . . . . .	448	152	18 706	126 493	12 858	25 919	79 177	251 880	7 021	17 661	178 878
	MOUNTAIN . . . . .	69	20	3 567	22 947	2 392	4 894	14 377	43 877	1 181	4 185	49 354
	COLORADO . . . . .	35	14	2 093	13 906	1 523	3 107	8 924	32 559	1 036	2 432	26 705
	UTAH . . . . .	10	3	1 311	7 893	775	1 582	4 787	9 363	104	1 576	20 079
	PACIFIC . . . . .	379	132	15 139	103 546	10 466	21 025	64 800	208 003	5 840	13 476	129 524
	WASHINGTON . . . . .	37	15	2 288	16 114	1 768	3 464	11 813	25 214	1 157	1 285	12 305
	CALIFORNIA . . . . .	304	103	10 990	74 861	7 524	15 245	46 190	161 490	4 056	10 946	107 828
354	METALWORKING MACHINERY, TOTAL . . . .	8 536	2 063	259 002	1 841 671	195 609	419 563	1 292 580	3 037 659	136 713	233 523	2 058 049
	NORTHEAST . . . . .	2 787	582	84 574	561 660	63 876	133 204	386 614	925 947	43 769	81 509	656 849
	NEW ENGLAND . . . . .	1 035	227	40 380	267 024	29 631	61 917	175 636	426 022	19 303	38 889	301 819
	MAINE . . . . .	10	2	171	776	157	330	624	1 341	81	155	1 188
	NEW HAMPSHIRE . . . . .	25	5	716	4 217	506	1 124	2 526	8 376	446	537	4 221
	VERMONT . . . . .	15	9	4 427	29 753	3 041	6 161	17 176	47 596	2 654	4 206	26 478
	MASSACHUSETTS . . . . .	395	92	14 991	95 575	11 040	23 026	63 654	150 301	6 222	14 997	121 220
	RHODE ISLAND . . . . .	85	15	4 271	26 416	3 095	6 009	16 859	40 755	1 433	4 038	28 254
	CONNECTICUT . . . . .	505	104	15 804	110 287	11 792	25 267	74 797	177 653	8 467	14 956	120 458
	MIDDLE ATLANTIC . . . . .	1 752	355	44 194	294 636	34 245	71 287	210 978	499 925	24 466	42 620	355 030
	NEW YORK . . . . .	787	140	17 566	118 979	13 418	28 134	84 316	212 670	8 903	16 564	136 555
	NEW JERSEY . . . . .	507	96	8 129	55 209	6 415	13 831	39 826	83 701	4 357	8 182	66 367
	PENNSYLVANIA . . . . .	458	119	18 499	120 448	14 412	29 322	86 836	203 554	11 206	17 874	152 088

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963								1958		
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
									(number)	(number)	(number)	(\$1,000)
354	METALWORKING MACHINERY--CONTINUED											
	NORTH CENTRAL . . . . .	4 421	1 256	151 443	1 133 576	113 743	249 079	799 684	1 847 382	81 050	133 595	1 228 933
	EAST NORTH CENTRAL . . . . .	4 083	1 176	144 204	1 088 565	108 232	237 546	768 981	1 772 122	76 766	127 382	1 173 892
	OHIO . . . . .	945	299	45 583	329 966	32 649	70 253	220 748	553 381	25 727	42 748	376 082
	INDIANA . . . . .	370	87	8 023	57 206	6 435	14 228	43 283	87 712	3 748	7 228	62 986
	ILLINOIS . . . . .	866	216	30 443	217 357	22 637	49 476	149 888	362 595	13 285	26 998	238 267
	MICHIGAN . . . . .	1 623	505	49 673	407 808	39 186	88 469	305 660	661 570	27 747	42 599	425 458
	WISCONSIN . . . . .	279	69	10 482	76 228	7 325	15 120	49 402	106 864	6 259	7 809	71 099
	WEST NORTH CENTRAL . . . . .	338	80	7 239	45 011	5 511	11 533	30 703	75 260	4 284	6 213	55 041
	IOWA . . . . .	50	13	1 658	10 800	1 159	2 424	6 593	18 012	1 147	1 254	11 022
	MISSOURI . . . . .	149	33	3 098	19 520	2 407	5 003	13 428	33 684	2 022	2 197	21 072
	NEBRASKA . . . . .	11	2	115	545	92	203	452	839	53	(D)	(D)
	SOUTH . . . . .	452	90	11 282	62 856	8 893	18 187	45 231	123 964	5 921	8 140	73 880
	VIRGINIA . . . . .	12	1	106	732	88	189	544	1 370	160	(D)	(D)
	NORTH CAROLINA . . . . .	40	4	553	2 898	448	913	2 058	5 048	281	(D)	(D)
	GEORGIA . . . . .	31	7	449	2 804	385	798	2 179	4 628	(D)	404	3 874
	FLORIDA . . . . .	80	16	904	5 267	734	1 592	4 062	8 391	626	531	4 255
	KENTUCKY . . . . .	34	10	757	4 440	631	1 388	3 535	7 327	520	555	5 516
	TENNESSEE . . . . .	41	12	803	4 223	669	1 469	3 307	6 529	381	(D)	(D)
	ALABAMA . . . . .	20	4	338	2 020	259	531	1 463	2 609	197	169	1 267
	OKLAHOMA . . . . .	12	2	133	727	110	251	524	1 266	82	157	1 355
	TEXAS . . . . .	84	15	1 512	8 872	1 155	2 425	6 155	17 651	743	(D)	(D)
	WEST . . . . .	875	135	11 702	83 942	9 096	19 091	61 412	142 702	5 974	10 279	98 387
	COLORADO . . . . .	14	3	129	790	107	207	618	962	59	112	775
	ARIZONA . . . . .	27	3	240	1 471	197	391	1 148	2 313	198	366	3 495
	WASHINGTON . . . . .	19	1	418	3 130	319	652	2 357	5 498	147	343	3 361
	OREGON . . . . .	22	2	151	808	123	225	622	1 049	62	132	1 206
	CALIFORNIA . . . . .	776	122	10 567	76 559	8 193	17 299	55 749	130 326	5 393	9 285	89 251
355	SPECIAL INDUSTRY MACHINERY, TOTAL . .	3 290	1 202	171 528	1 094 823	120 027	249 517	679 122	1 917 184	71 414	162 262	1 339 530
	NORTHEAST . . . . .	1 279	440	73 982	480 705	51 077	106 584	296 227	794 232	28 592	77 810	596 292
	NEW ENGLAND . . . . .	400	147	31 713	199 127	21 529	45 242	119 244	324 418	13 570	33 528	241 792
	MAINE . . . . .	17	6	566	2 815	441	918	2 008	4 161	86	(D)	(D)
	NEW HAMPSHIRE . . . . .	21	10	3 411	20 805	2 428	5 627	13 177	32 057	2 060	3 906	32 084
	VERMONT . . . . .	15	5	360	1 486	282	563	1 185	2 284	29	(D)	(D)
	MASSACHUSETTS . . . . .	237	94	20 233	127 362	13 574	28 145	75 322	200 407	8 120	20 879	142 700
	RHODE ISLAND . . . . .	43	14	2 936	17 122	1 904	4 069	9 859	30 538	1 377	2 222	17 902
	CONNECTICUT . . . . .	67	18	4 207	29 537	2 900	5 920	17 693	54 971	1 898	4 196	39 662
	MIDDLE ATLANTIC . . . . .	879	293	42 269	281 578	29 548	61 342	176 983	469 814	15 022	44 282	354 500
	NEW YORK . . . . .	387	103	15 142	103 414	10 529	21 579	66 025	187 217	3 877	17 870	150 416
	NEW JERSEY . . . . .	267	96	11 337	78 036	7 785	16 549	47 959	129 274	4 219	10 336	94 900
	PENNSYLVANIA . . . . .	225	94	15 790	100 128	11 234	23 214	62 999	153 323	6 926	16 076	109 184
	NORTH CENTRAL . . . . .	986	406	56 276	379 203	39 226	81 482	237 176	693 940	26 944	51 115	470 017
	EAST NORTH CENTRAL . . . . .	806	344	49 900	340 298	39 964	72 709	214 673	624 530	22 768	45 869	424 538
	OHIO . . . . .	228	101	16 256	109 140	11 196	23 422	68 340	199 238	5 788	14 250	128 817
	INDIANA . . . . .	61	22	2 942	18 428	2 121	4 306	11 879	35 214	1 906	2 856	24 766
	ILLINOIS . . . . .	266	108	14 477	100 691	9 812	20 552	62 314	174 156	6 297	14 257	130 422
	MICHIGAN . . . . .	135	61	6 978	49 595	4 775	10 136	28 284	109 641	3 473	6 311	72 072
	WISCONSIN . . . . .	116	52	9 247	62 444	7 060	14 293	43 856	106 281	5 304	8 195	68 461
	WEST NORTH CENTRAL . . . . .	180	62	6 376	38 905	4 262	8 773	22 503	69 410	4 176	5 246	45 479
	MINNESOTA . . . . .	51	19	1 892	11 866	1 383	2 833	7 930	20 224	937	1 452	12 785
	IOWA . . . . .	37	16	1 573	8 961	1 158	2 311	5 717	14 512	461	1 305	12 777
	MISSOURI . . . . .	60	17	1 968	12 499	1 092	2 220	5 817	22 267	2 389	1 820	12 798
	KANSAS . . . . .	20	10	877	5 298	580	1 309	2 840	11 702	336	648	6 963
	SOUTH . . . . .	582	245	29 140	156 608	21 110	44 122	95 617	291 983	11 896	23 389	177 859
	SOUTH ATLANTIC . . . . .	371	171	20 815	110 620	15 195	32 026	67 312	198 794	8 416	16 149	116 108
	MARYLAND . . . . .	33	17	2 991	19 926	2 016	4 342	12 560	34 126	1 145	2 645	24 730
	VIRGINIA . . . . .	19	9	746	4 176	497	1 006	2 390	6 192	1 211	840	5 084
	NORTH CAROLINA . . . . .	145	67	7 000	33 643	5 231	11 113	20 854	72 976	2 298	5 013	37 779
	SOUTH CAROLINA . . . . .	53	26	4 889	22 369	3 850	8 088	15 049	38 789	1 561	2 817	17 769
	GEORGIA . . . . .	69	33	3 129	15 479	2 396	4 946	9 710	26 628	1 123	2 750	20 811
	FLORIDA . . . . .	38	13	1 227	6 874	728	1 551	3 485	12 166	499	(D)	(D)
	EAST SOUTH CENTRAL . . . . .	80	32	3 563	18 798	2 671	5 326	12 585	41 268	1 070	3 046	24 514
	ALABAMA . . . . .	17	8	1 127	5 839	869	1 729	3 977	11 857	175	1 018	7 358
	WEST SOUTH CENTRAL . . . . .	131	42	4 762	27 190	3 244	6 770	15 720	51 921	2 410	4 194	37 237
	ARKANSAS . . . . .	9	4	185	827	163	336	662	1 232	58	(D)	(D)
	LOUISIANA . . . . .	13	7	594	2 995	474	997	2 120	6 539	327	394	3 622
	OKLAHOMA . . . . .	23	6	466	2 581	329	648	1 620	5 048	152	603	3 799
	TEXAS . . . . .	86	25	3 517	20 787	2 278	4 789	11 318	39 102	1 873	3 149	29 169
	WEST . . . . .	443	111	12 128	78 307	8 613	17 329	50 102	139 251	3 977	9 948	95 362
	MOUNTAIN . . . . .	28	5	619	3 957	350	689	2 967	5 913	185	333	2 796
	PACIFIC . . . . .	415	106	11 509	74 350	8 263	16 640	47 135	133 338	3 792	9 615	92 566
	OREGON . . . . .	51	16	1 587	10 867	1 129	2 242	6 516	25 084	581	1 180	13 159
	CALIFORNIA . . . . .	310	72	8 182	51 772	5 847	11 875	32 673	91 104	2 899	7 328	67 502

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
									(number)	(number)	(number)	(\$1,000)
356	GENERAL INDUSTRIAL MACHINERY, TOTAL.	3 760	1 205	233 143	1 542 032	161 869	332 054	962 422	2 812 672	124 540	211 382	1 935 184
	NORTHEAST . . . . .	1 128	386	94 467	609 323	66 294	135 478	387 143	1 079 402	47 483	90 764	774 115
	NEW ENGLAND . . . . .	311	116	33 079	204 530	24 563	50 096	138 561	383 838	16 918	32 825	279 674
	NEW HAMPSHIRE . . . . .	14	7	2 025	11 273	1 518	3 175	7 074	17 823	502	(D)	(D)
	MASSACHUSETTS . . . . .	166	58	9 261	56 751	6 512	13 299	37 583	97 191	3 319	9 055	79 604
	CONNECTICUT . . . . .	104	42	20 834	131 192	15 882	32 401	90 907	259 483	12 820	21 345	179 258
	MIDDLE ATLANTIC . . . . .	817	270	61 388	404 793	41 731	85 382	248 582	695 564	30 565	57 939	494 441
	NEW YORK . . . . .	316	98	24 566	159 313	16 112	33 171	93 172	265 326	12 755	22 934	192 158
	NEW JERSEY . . . . .	215	66	14 909	102 131	10 794	22 185	69 473	178 595	7 626	14 278	122 260
	PENNSYLVANIA . . . . .	286	106	21 913	143 349	14 825	30 026	85 937	251 643	10 184	20 727	180 023
	NORTH CENTRAL . . . . .	1 643	560	104 108	697 064	74 510	153 085	454 864	1 323 208	55 245	94 474	888 251
	EAST NORTH CENTRAL . . . . .	1 421	484	95 237	643 561	68 271	140 426	420 792	1 204 819	51 970	88 131	828 812
	OHIO . . . . .	369	123	31 214	204 886	21 976	44 708	131 231	375 388	15 222	30 627	269 269
	INDIANA . . . . .	132	52	16 503	108 196	11 891	24 043	71 396	203 658	11 567	12 399	115 173
	ILLINOIS . . . . .	367	136	20 311	134 712	14 155	29 497	83 948	271 115	8 538	19 140	202 301
	MICHIGAN . . . . .	370	110	16 185	117 336	12 517	26 143	84 797	209 268	9 413	16 157	139 657
	WISCONSIN . . . . .	183	63	11 024	78 431	7 732	16 035	49 420	145 390	7 230	9 808	102 412
	WEST NORTH CENTRAL . . . . .	222	76	8 871	53 503	6 239	12 659	34 072	118 389	3 275	6 343	59 439
	MINNESOTA . . . . .	72	29	2 512	15 909	1 737	3 402	9 527	28 960	611	1 868	16 436
	IOWA . . . . .	32	11	1 744	9 628	1 218	2 598	6 127	20 651	893	(D)	(D)
	MISSOURI . . . . .	71	20	2 268	14 379	1 693	3 346	9 831	26 567	543	1 618	16 738
	KANSAS . . . . .	33	9	1 121	6 828	682	1 447	3 860	14 672	484	897	9 565
	SOUTH . . . . .	406	115	13 949	83 329	10 187	21 170	54 131	174 049	11 677	11 587	104 895
	SOUTH ATLANTIC . . . . .	146	36	4 068	26 158	2 991	6 268	18 198	47 384	4 230	4 202	33 884
	MARYLAND . . . . .	20	3	1 059	7 006	608	1 249	3 339	9 709	524	1 722	13 480
	VIRGINIA . . . . .	15	7	636	3 230	548	1 224	2 653	8 033	686	215	1 278
	NORTH CAROLINA . . . . .	21	6	376	1 851	299	625	1 190	3 994	155	680	6 402
	SOUTH CAROLINA . . . . .	10	5	703	7 552	611	1 324	6 956	11 940	2 161	(D)	(D)
	GEORGIA . . . . .	14	4	634	3 131	431	812	1 767	6 998	163	551	5 803
	FLORIDA . . . . .	51	9	534	2 763	389	835	1 770	5 616	434	667	3 838
	EAST SOUTH CENTRAL . . . . .	77	21	3 651	21 806	2 875	5 953	15 257	48 823	3 787	2 255	26 505
	KENTUCKY . . . . .	20	6	1 705	11 337	1 443	2 963	8 674	30 858	2 326	1 248	19 937
	TENNESSEE . . . . .	26	8	1 227	6 441	886	1 864	3 855	11 002	969	555	2 896
	ALABAMA . . . . .	25	6	567	3 299	458	946	2 382	6 006	412	(D)	(D)
	MISSISSIPPI . . . . .	6	1	152	729	88	180	346	957	80	(D)	(D)
	WEST SOUTH CENTRAL . . . . .	183	58	6 230	35 365	4 321	8 949	20 676	77 842	3 660	5 130	44 506
	ARKANSAS . . . . .	10	4	335	1 543	242	460	875	3 599	37	237	2 822
	LOUISIANA . . . . .	10	3	168	894	106	209	542	1 559	40	237	1 815
	OKLAHOMA . . . . .	44	19	2 237	12 795	1 504	3 023	7 043	26 108	2 262	1 628	13 433
	TEXAS . . . . .	119	32	3 490	20 133	2 469	5 257	12 216	46 576	1 321	3 028	26 436
	WEST . . . . .	583	144	20 721	152 774	11 003	22 601	66 175	245 129	10 246	14 557	167 923
	MOUNTAIN . . . . .	46	10	1 175	7 464	764	1 689	4 754	18 743	511	1 005	12 152
	COLORADO . . . . .	25	6	541	3 674	369	841	2 383	9 182	344	435	5 960
	PACIFIC . . . . .	537	134	19 546	145 310	10 239	20 912	61 421	226 386	9 735	13 552	155 771
	WASHINGTON . . . . .	30	5	389	2 611	276	541	1 564	4 345	103	603	6 108
	CALIFORNIA . . . . .	480	124	18 908	140 995	9 766	19 955	58 570	219 214	9 593	12 689	147 134
357	OFFICE MACHINES, NEC, TOTAL.	515	265	137 138	945 221	88 266	177 271	523 704	1 633 690	119 610	121 615	970 529
	NORTHEAST . . . . .	206	101	60 572	413 149	38 532	78 611	221 495	606 966	51 096	65 208	441 324
	NEW ENGLAND . . . . .	58	34	14 765	85 728	11 194	22 645	58 627	175 927	6 452	15 610	125 120
	MASSACHUSETTS . . . . .	31	19	3 652	22 779	2 510	5 651	12 789	50 382	2 983	2 323	17 925
	CONNECTICUT . . . . .	17	11	9 746	55 473	7 666	14 893	40 606	112 108	3 362	12 183	98 650
	MIDDLE ATLANTIC . . . . .	148	67	45 807	327 421	27 338	55 966	162 868	431 039	44 644	49 598	316 204
	NEW YORK . . . . .	80	38	36 466	267 234	21 319	43 464	128 317	324 940	31 161	42 457	264 334
	NEW JERSEY . . . . .	34	17	4 615	29 211	2 906	6 288	17 873	48 561	4 040	3 830	30 540
	PENNSYLVANIA . . . . .	34	12	4 726	30 976	3 113	6 214	16 678	57 538	9 443	3 311	21 330
	NORTH CENTRAL . . . . .	140	76	50 507	345 638	35 730	70 739	224 219	699 545	43 917	41 439	403 072
	EAST NORTH CENTRAL . . . . .	107	59	37 724	257 105	28 734	56 253	184 700	490 489	23 999	(D)	(D)
	ILLINOIS . . . . .	53	34	7 837	46 170	4 937	9 785	26 233	106 126	4 880	6 770	73 300
	WEST NORTH CENTRAL . . . . .	33	17	12 783	88 533	6 996	14 486	39 519	209 056	19 918	(D)	(D)
	SOUTH . . . . .	56	33	8 386	55 348	5 448	10 959	28 969	150 413	8 072	4 213	49 786
	NORTH CAROLINA . . . . .	4	3	461	2 159	300	614	1 203	3 707	325	(D)	(D)
	WEST . . . . .	113	55	17 673	131 086	8 556	16 962	49 021	176 766	17 096	10 755	76 347

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
		Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
358	SERVICE INDUSTRY MACHINES, TOTAL . . .	1 520	642	112 569	673 869	77 808	155 962	406 627	1 368 914	47 319	100 059	918 151
	NORTHEAST . . . . .	433	189	33 938	208 939	22 479	44 768	121 388	428 115	17 240	32 890	299 905
	NEW ENGLAND . . . . .	76	40	6 233	37 699	4 221	8 459	22 105	70 306	2 666	6 656	63 974
	MASSACHUSETTS . . . . .	41	24	4 204	25 767	2 980	5 988	16 171	48 322	1 626	4 775	50 198
	RHODE ISLAND . . . . .	9	2	200	1 102	86	166	381	1 662	168	(D)	(D)
	CONNECTICUT . . . . .	21	9	1 180	6 841	806	1 625	4 025	11 438	798	1 196	8 707
	MIDDLE ATLANTIC . . . . .	357	149	27 705	171 240	18 258	36 309	99 283	357 809	14 574	26 234	235 931
	NEW YORK . . . . .	166	65	11 602	74 909	7 666	15 429	44 474	169 344	5 133	13 087	139 329
	NEW JERSEY . . . . .	82	40	5 381	33 263	3 555	7 080	18 980	57 433	2 338	5 720	41 068
	PENNSYLVANIA . . . . .	109	44	10 722	63 068	7 037	13 800	35 829	131 032	7 103	7 427	55 534
	NORTH CENTRAL . . . . .	536	260	53 480	327 113	36 848	74 047	197 433	653 459	20 354	48 454	451 454
	EAST NORTH CENTRAL . . . . .	409	194	39 136	241 999	27 209	54 675	148 532	460 774	15 752	35 038	339 947
	OHIO . . . . .	82	45	10 021	61 306	7 278	14 758	40 062	120 260	3 806	7 968	66 088
	INDIANA . . . . .	43	18	5 394	30 807	3 977	7 636	20 294	52 154	2 287	4 390	44 251
	ILLINOIS . . . . .	170	84	9 925	61 370	6 444	13 535	34 404	114 811	4 286	8 144	82 684
	MICHIGAN . . . . .	66	30	8 402	55 455	6 226	12 252	36 302	109 151	3 213	9 461	93 804
	WISCONSIN . . . . .	48	17	5 394	33 061	3 284	6 494	17 470	64 398	2 160	5 075	53 120
	WEST NORTH CENTRAL . . . . .	127	66	14 344	85 114	9 639	19 372	48 901	192 685	4 602	13 416	111 507
	MINNESOTA . . . . .	49	23	4 913	30 892	3 406	7 166	17 841	68 137	2 187	4 392	40 407
	IOWA . . . . .	13	7	1 051	6 514	819	1 763	4 460	31 978	499	618	5 196
	MISSOURI . . . . .	44	28	7 449	42 972	4 733	9 195	23 708	76 227	1 636	6 758	58 549
	KANSAS . . . . .	13	7	858	4 346	628	1 137	2 647	15 283	234	1 447	5 850
	SOUTH . . . . .	285	115	17 228	89 467	12 976	26 308	57 315	204 741	7 470	11 385	102 336
	SOUTH ATLANTIC . . . . .	108	37	5 172	28 194	3 684	7 510	16 980	58 770	1 961	3 773	32 644
	MARYLAND . . . . .	14	8	1 343	8 134	865	1 722	4 073	18 187	354	1 151	13 893
	NORTH CAROLINA . . . . .	16	7	1 056	5 553	802	1 653	3 978	12 234	154	447	3 369
	GEORGIA . . . . .	16	6	883	4 914	634	1 334	2 799	7 666	545	678	5 052
	FLORIDA . . . . .	45	8	487	2 521	340	692	1 491	5 015	216	344	2 341
	EAST SOUTH CENTRAL . . . . .	40	19	4 656	25 215	3 639	7 396	17 245	66 154	2 521	2 823	27 734
	KENTUCKY . . . . .	8	6	2 082	13 344	1 653	3 345	9 232	38 653	550	1 784	18 120
	TENNESSEE . . . . .	19	7	1 347	6 055	988	1 956	3 777	17 278	1 220	700	7 399
	WEST SOUTH CENTRAL . . . . .	137	59	7 400	36 058	5 653	11 402	23 090	79 817	2 988	4 789	41 958
	ARKANSAS . . . . .	10	7	786	3 325	642	1 313	2 398	6 938	160	122	682
	LOUISIANA . . . . .	13	3	252	1 298	179	403	815	3 029	83	142	1 239
	OKLAHOMA . . . . .	24	8	852	3 799	679	1 345	2 586	6 914	596	207	1 703
	TEXAS . . . . .	90	41	5 510	27 636	4 153	8 341	17 291	62 936	2 149	4 318	38 334
	WEST . . . . .	266	79	8 195	49 380	5 753	11 316	31 350	88 215	2 257	7 330	64 456
	MOUNTAIN . . . . .	37	9	2 043	11 286	1 446	2 712	7 539	24 528	608	1 481	10 905
	ARIZONA . . . . .	10	4	1 300	7 415	971	1 730	5 256	14 157	469	1 097	7 577
	PACIFIC . . . . .	229	70	6 152	38 094	4 307	8 604	23 811	63 687	1 649	5 849	53 551
	OREGON . . . . .	15	3	202	1 391	140	277	960	2 212	44	(D)	(D)
	CALIFORNIA . . . . .	201	61	5 578	34 345	3 939	7 901	21 513	58 434	1 499	5 521	50 485
359	MISCELLANEOUS MACHINERY, TOTAL . . .	12 090	1 402	135 820	793 629	108 445	224 320	593 147	1 366 327	71 729	115 659	959 939

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.  
<sup>1</sup>This industry group consists of a single 4-digit industry. Detailed data by State are included in the 4-digit industry tables.

TABLE 3. Detailed Statistics: 1963

Item	Machinery, except electrical (SIC 35)	Engines and turbines (SIC 351)	Farm machinery and equipment (SIC 352)	Construction and like equipment (SIC 353)	Metal-working machinery (SIC 354)	Special industry machinery (SIC 355)	General industrial machinery (SIC 356)	Office machines, n.e.c. (SIC 357)	Service industry machines (SIC 358)	Miscellaneous machinery (SIC 359)
ESTABLISHMENTS, TOTAL . . . NUMBER . .	33 703	165	1 568	2 259	8 536	3 290	3 760	515	1 520	12 090
WITH 1 TO 19 EMPLOYEES . . . DO . .	25 277	63	1 010	1 272	6 473	2 088	2 555	250	878	10 688
WITH 20 TO 99 EMPLOYEES . . . DO . .	6 137	32	407	620	1 657	848	766	130	410	1 267
WITH 100 EMPLOYEES OR MORE . . DO . .	2 289	70	151	367	406	354	439	135	232	135
PROPRIETORS AND WORKING PARTNERS . . . . . DO . .	17 956	28	706	694	4 456	1 111	1 690	114	443	8 714
ALL EMPLOYEES (AVERAGE FOR THE YEAR) . . . . . DO . .	1 459 377	86 604	112 614	210 959	259 002	171 528	233 143	137 138	112 569	135 820
PAYROLL (ALL EMPLOYEES), TOTAL FOR YEAR . . . . . \$1,000 . .	9 570 984	609 319	689 122	1 381 298	1 841 671	1 094 823	1 542 032	945 221	673 869	793 629
PRODUCTION WORKERS:										
AVERAGE FOR THE YEAR . . . NUMBER . .	1 045 075	61 648	84 650	146 753	195 609	120 027	161 869	88 266	77 808	108 445
MARCH . . . . . DO . .	1 042 144	61 959	88 592	142 281	195 060	119 709	161 158	88 027	77 950	107 408
MAY . . . . . DO . .	1 047 143	60 761	86 961	145 760	195 847	119 189	162 728	86 721	80 733	108 443
AUGUST . . . . . DO . .	1 043 738	62 044	84 720	149 072	193 988	119 601	161 418	87 601	76 220	109 074
NOVEMBER . . . . . DO . .	1 051 273	61 827	82 327	149 807	197 821	120 610	162 259	90 715	76 366	109 450
MAN-HOURS . . . . . \$1,000 . .	2 151 057	123 929	168 911	299 530	419 563	249 517	332 054	177 271	155 962	224 320
JANUARY-MARCH . . . . . DO . .	539 111	31 750	44 683	72 599	105 273	62 758	82 882	45 344	38 640	55 182
APRIL-JUNE . . . . . DO . .	549 253	31 114	44 277	75 483	106 949	64 039	84 842	44 868	41 414	56 267
JULY-SEPTEMBER . . . . . DO . .	514 305	29 377	38 476	73 947	100 335	59 760	79 846	40 278	36 994	55 292
OCTOBER-DECEMBER . . . . . DO . .	548 960	31 688	41 475	78 028	107 006	62 960	84 489	46 814	38 921	57 579
WAGES . . . . . \$1,000 . .	6 209 341	401 743	476 827	873 169	1 292 580	679 122	962 422	523 704	406 627	593 147
COST OF MATERIALS, ETC., TOTAL <sup>1</sup> . . . . . DO . .	13 254 179	988 490	1 536 761	2 543 510	1 483 120	1 408 733	1 953 215	1 168 473	1 498 054	673 823
MATERIALS, PARTS, CONTAINERS, AND SUPPLIES CONSUMED . . . DO . .	11 536 433	913 216	1 426 108	2 243 396	1 227 774	1 153 687	1 678 079	1 030 522	1 334 990	528 661
COST OF REALES . . . . . DO . .	1 002 705	42 571	72 001	207 162	98 566	176 043	156 517	92 176	113 768	43 901
FUELS CONSUMED . . . . . DO . .	104 719	10 888	14 380	14 861	15 939	10 973	17 897	5 258	7 315	7 208
ELECTRIC ENERGY:										
PURCHASED:										
QUANTITY . . . MILLION KW.-HRS. .	11 059	836	735	2 041	1 813	1 009	2 046	804	894	881
COST . . . . . \$1,000 . .	153 527	9 712	10 387	25 523	28 540	15 867	26 985	10 123	11 344	15 046
GENERATED LESS SOLD . . . . . MILLION KW.-HRS. .	12 185	210	550	4 250	1 140	1 455	2 087	283	2 207	3
CONTRACT WORK . . . . . \$1,000 . .	456 736	12 103	13 885	52 515	112 296	52 123	73 776	30 394	30 637	79 007
VALUE OF SHIPMENTS (INCLUDING REALES), TOTAL <sup>1</sup> . . . . . DO . .	30 363 095	2 089 990	2 842 243	5 260 407	4 474 696	3 303 290	4 732 825	2 782 800	2 840 545	2 036 299
VALUE OF REALES . . . . . DO . .	1 330 744	58 030	89 619	271 953	126 283	228 760	209 840	139 535	149 616	57 109
VALUE ADDED BY MANUFACTURE, ADJUSTED . . . . . DO . .	17 310 599	1 113 503	1 328 381	2 732 269	3 037 659	1 917 184	2 812 672	1 633 690	1 368 914	1 366 327
MANUFACTURERS' INVENTORIES:										
BEGINNING OF YEAR, TOTAL . . DO . .	6 554 398	445 141	633 879	1 212 801	893 280	792 560	957 291	808 695	579 777	230 974
FINISHED PRODUCTS . . . . . DO . .	2 017 342	81 264	253 194	406 853	243 134	254 530	328 593	172 257	204 875	72 642
WORK-IN-PROCESS . . . . . DO . .	2 868 816	280 680	197 930	409 303	463 440	331 067	376 306	537 962	180 223	91 905
MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO . .	1 668 251	83 197	182 755	396 646	186 706	206 963	252 407	98 476	194 679	66 427
END OF YEAR, TOTAL . . . . . DO . .	6 803 006	455 427	669 266	1 245 960	952 791	817 691	986 121	832 582	609 711	233 457
FINISHED PRODUCTS . . . . . DO . .	2 061 684	76 260	267 168	404 218	255 806	261 592	333 088	176 103	213 234	74 205
WORK-IN-PROCESS . . . . . DO . .	3 027 133	297 687	206 855	427 521	496 768	346 631	404 917	553 749	198 812	94 193
MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO . .	1 714 191	81 480	195 243	414 221	200 218	209 467	248 108	102 730	197 665	65 059
EXPENDITURES FOR PLANT AND EQUIPMENT, TOTAL . . . . . DO . .	868 168	57 321	68 379	100 122	158 863	79 089	136 918	128 720	51 370	87 386
NEW, TOTAL . . . . . DO . .	783 076	54 145	64 431	93 175	136 713	71 414	124 540	119 610	47 319	71 729
NEW STRUCTURES AND ADDITIONS TO PLANT . . . . . DO . .	170 968	7 939	17 006	19 318	26 411	17 778	26 177	21 555	14 189	20 595
NEW MACHINERY AND EQUIPMENT . . . . . DO . .	612 118	46 206	47 425	73 866	110 302	53 636	98 363	98 055	33 131	51 134
USED PLANT AND EQUIPMENT . . DO . .	85 110	3 176	3 948	6 947	22 167	7 675	12 378	9 110	4 051	15 658
SELECTED OPERATING RATIOS:										
PAYROLL/TOTAL EMPLOYMENT . . . . .	6 558	7 036	6 119	6 548	7 111	6 383	6 614	6 892	5 986	5 843
PRODUCTION WORKERS/TOTAL EMPLOYMENT	.72	.71	.75	.70	.76	.70	.69	.64	.69	.80
MAN-HOURS/PRODUCTION WORKERS . . .	2 058	2 010	1 995	2 041	2 145	2 079	2 051	2 008	2 004	2 069
PRODUCTION WORKER WAGES/MAN-HOURS	2.89	3.24	3.82	2.92	3.08	2.72	2.90	2.95	2.61	2.64
COST OF MATERIALS AND PAYROLLS/TOTAL VALUE OF SHIPMENTS . . . . .	.75	.76	.79	.75	.74	.76	.74	.76	.76	.72
COST OF MATERIALS/TOTAL VALUE OF SHIPMENTS . . . . .	.44	.47	.55	.48	.33	.43	.41	.42	.53	.33
ADJUSTED VALUE ADDED/TOTAL EMPLOYMENT . . . . .	11 862	12 857	11 796	12 952	11 728	11 177	12 064	11 913	12 161	10 059
SALARIES AND WAGES/ADJUSTED VALUE ADDED . . . . .	.55	.55	.52	.51	.61	.57	.55	.58	.49	.58

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry. For a more complete explanation, see Introduction.





## ENGINES AND TURBINES AND FARM MACHINERY AND EQUIPMENT

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3511—Steam Engines; Steam, Gas, and Hydraulic Turbines; and Steam, Gas, and Hydraulic Turbine Generator Set Units
- 3519—Internal Combustion Engines, Not Elsewhere Classified
- 3522—Farm Machinery and Equipment

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3511—STEAM ENGINES; STEAM, GAS, AND HYDRAULIC TURBINES; AND STEAM, GAS AND HYDRAULIC TURBINE GENERATOR SET UNITS

This industry comprises establishments primarily engaged in manufacturing steam engines; steam turbines; hydraulic turbines; gas turbines, except aircraft; and complete steam, gas, and hydraulic turbine generator set units. Establishments primarily engaged in building or rebuilding locomotives are classified in industry 3741; and those manufacturing nonautomotive generators which are not part of a turbine generator set in industry 3621. For a detailed list of products of industry 3511, refer to table 6A, product codes 3511112 to 3511273.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Steam Engines and Turbines Industry totaled \$616 million. This amount included shipments of steam engines and turbines (primary products) valued at \$485 million, shipments of other products (secondary products) valued at \$88 million, and miscellaneous receipts (mainly products bought and resold) at \$43 million.

This industry's shipments of steam engines and turbines represented 85 percent of its total product shipments. The industry specialization ratio in 1958 was 78 percent. Secondary products shipped by this industry in 1963 include heat exchangers and steam condensers, over \$10 million, and speed changers, industrial high speed drives and gears, over \$5 million.



Shipments of steam engines and turbines by this industry represented 82 percent of all shipments of these products (\$589 million) by all industries. In 1958 the coverage ratio was 94 percent. Other industries shipping steam engines and turbines include industry 3722, Aircraft Engines and Parts, \$43 million; and industry 3561, Pumps and Compressors, over \$10 million.

A few of the establishments engaged in manufacturing steam engines and turbines also installed the steam engines and turbines they produced. For 1963, establishments in industry 3511 reported receipts for installation totaling \$3 million. The employment statistics for this industry include only employees attached to the manufacturing establishments and exclude local labor hired in the field for installation and erection work.

The production index for the primary products of the industry increased to 157 in 1963 from the 1958 level of 146. The unit value index for 1963 was 78 compared to 108 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3519—INTERNAL COMBUSTION ENGINES, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing diesel, semi-diesel, or other internal combustion engines, n.e.c., for stationary, marine, traction, and other uses. Establishments primarily engaged in manufacturing aircraft engines, including rocket engines, are classified in industry 3722; automotive engines except diesel in industry 3714; and engine generator sets in industry 3621. For a list of products of industry 3519, refer to table 6A, product codes 3519100 to 3519715.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Internal Combustion Engines Industry totaled \$1,474 million. This amount included shipments of internal combustion engines, n.e.c. (primary products) valued at \$1,210 million, shipments of other products (secondary products) valued at \$197 million, and miscellaneous receipts (mainly products bought and resold) at \$66 million.

This industry's shipments of internal combustion engines represented 86 percent of its total products shipments. The industry specialization ratio in 1958 was 90 percent. Secondary products shipped by this industry in 1963 include parts and accessories for passenger cars, trucks, and busses shipped to motor vehicle manufactures (\$40 million), and prime mover generator sets, except steam or hydraulic turbines (\$38 million).

Inasmuch as industry 3519 includes all establishments primarily engaged in manufacturing internal combustion engines (except automotive and aircraft), significantly different types of establishments are included. The most important difference concerns the type of engines produced. One distinct group comprises plants primarily manufacturing gasoline engines and another comprises those primarily manufacturing diesel engines. Within the first group another significant difference concerns the size of gasoline engines produced. Establishments producing small gasoline engines for power lawn mowers, garden tractors, small engine generators, pumps, etc., are included as well as plants principally producing large gasoline engines for industrial uses, large generator sets, tractors, farm equipment, etc. Establishments producing outboard motors are also included. For diesel engines, likewise, a difference exists as to size of engine produced. Certain plants produce only large diesel engines for locomotives, diesel-electric sets, etc.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent to this specialization is indicated in table 8. Approximately 48 percent of the total industry shipments are represented by plants specializing in diesel and semidiesel engines; and 18 percent in parts and attachments for internal combustion engines (except aircraft and automotive engines and gas turbines).

The coverage ratio for an individual product class may vary significantly from that for the 4-digit industry for the following product class of industry 3519, e.g., gas engines (except gas turbines), 47 percent.

Shipments of internal combustion engines by this industry represented 86 percent of all shipments of these products (\$1,414 million) by all industries. In 1958 the coverage ratio was 82 percent. Other industries shipping internal combustion engines include industry 3522, Farm Machinery and Equipment, over \$22 million; and industry 3717, Motor Vehicles and Parts, \$19 million.

Internal combustion engines are produced captively in significant quantities by establishments classified in other industries, which incorporate the engines into other products (tractors, lawn mowers, etc.) made in the same establishment. The product statistics shown in tables 6A-1 through 6A-6 include data for engines produced and incorporated into the establishments own end products as well as data for engines transferred to plants of the same company. Data on engines sold to other companies also are shown separately. These data were compiled from supplemental reports filed by manufacturers of end products incorporating engines of their own manufacture.

Product data similar to that shown in tables 6A-1 through 6A-6 have been collected and compiled annually since 1950 by the Bureau of the Census and published in Current Industrial Reports Series M35L, Internal Combustion Engines.

The production index for the primary products of the industry increased to 150 in 1963 from the 1958 level of 108. The unit value index for 1963 was 102 compared to 114 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3522—FARM MACHINERY AND EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing farm machinery, including equipment and wheel tractors, for use in the preparation and maintenance of the soil; planting and harvesting of the crop; preparing, on the farm, crops for market; or for use in performing other farm operations and processes. This industry includes wheel tractors except contractors' off-highway type which are classified in industry 3531. Establishments primarily engaged in manufacturing industrial trucks, tractors, and trailers used for handling materials in industrial plants, depots, and docks are classified in industry 3537; and farm handtools in group 342. For a detailed list of products of industry 3522, refer to table 6A, product codes 3522281 to 3522898.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Farm Machinery and Equipment Industry totaled \$2,842 million. This amount included shipments of farm machinery and equipment (primary products) valued at \$2,412 million, shipments of other products (secondary products) valued at \$308 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$122 million.

This industry's shipments of farm machinery and equipment represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was 90 percent. Secondary products shipped by this industry in 1963 include scrapers, graders, rollers, and off-highway trucks, trailers, and wagons, excluding parts (\$26 million), and other transportation equipment (\$25 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the



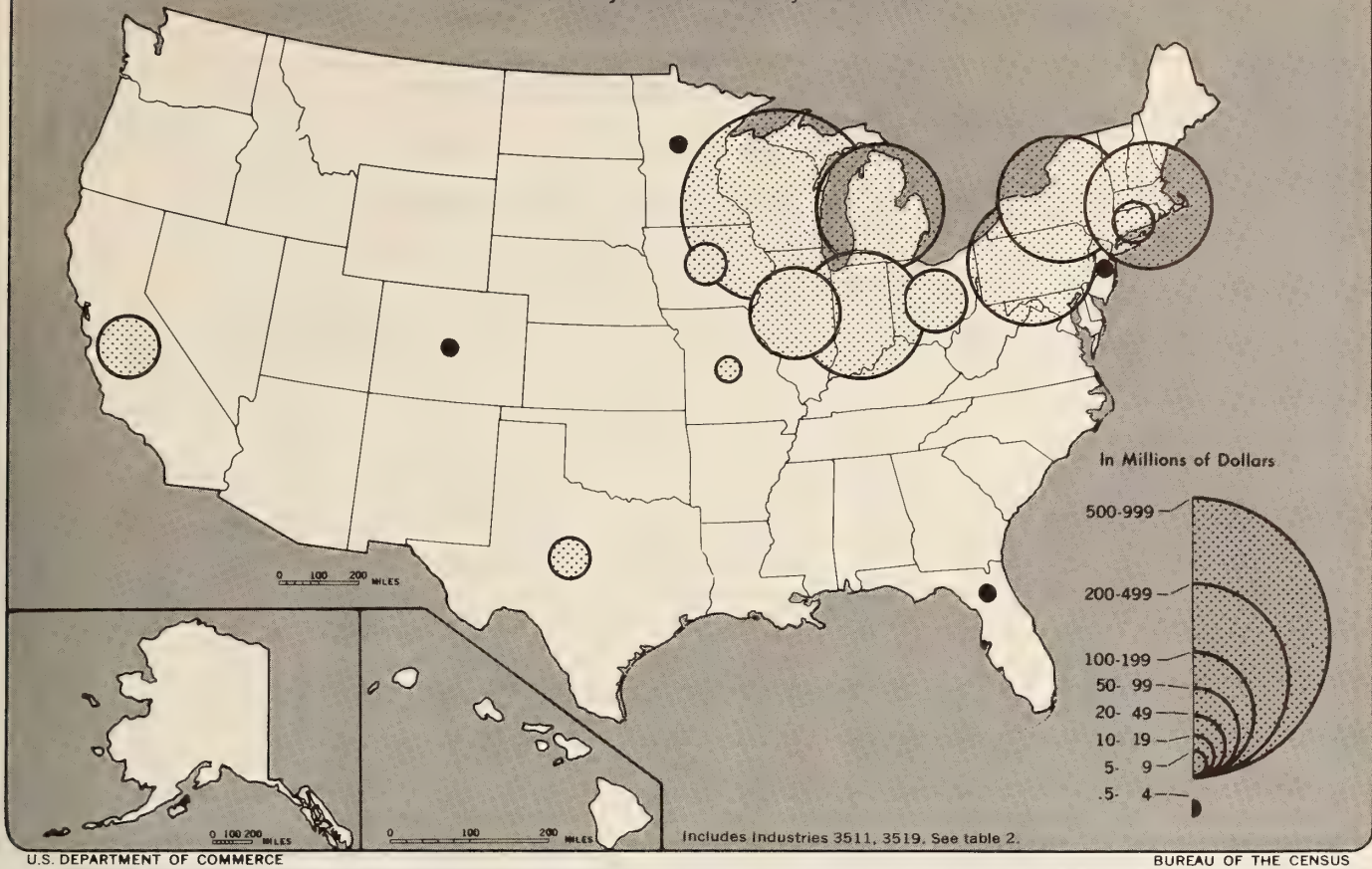
different product classes. The extent to this specialization is indicated in table 8. Approximately 32 percent of the total industry shipments are represented by plants specializing in wheel tractors and parts and attachments (except garden and contractors' off-highway); and 20 percent in harvesting machinery.

Shipments of farm machinery and equipment by this industry represented 95 percent of all shipments of these products (\$2,542 million) by all industries. In 1958 the coverage ratio was 94 percent. Other industries shipping farm machinery and equipment include industry 3717, Motor Vehicles and Parts, \$25 million; and industry 3531, Construction Machinery, over \$13 million.

Industry 3522 includes establishments producing a wide range of farm machinery and equipment including not only wheel tractors and equipment for raising and harvesting crops but also such other equipment as dairy equipment (milking machines, cream separators, etc.), poultry equipment (incubators, brooders, etc.), barn and barnyard equipment (barn cleaners, stock tanks, etc.), and machines for preparing crops for market (corn shellers, feed grinders, etc.).

Inasmuch as industry 3522 covers such a wide range of products, the operations of the plants classified in this industry differ in some respects. Those plants engaged in manufacturing wheel tractors and self-propelled equipment such as combines, corn pickers, hay balers, etc., and to a lesser extent those manufacturing equipment for mounting on tractors or to be drawn by tractors, include large assembly operations in addition to the processes and operations involved in manufacturing the component parts. Also included within this industry are plants whose operations are largely limited to metal fabricating such as those primarily engaged in producing cattle stalls, animal stock tanks, poultry brooders, etc.

# ENGINES AND TURBINES: SIC 351 Value Added by Manufacture by State: 1963



# FARM MACHINERY AND EQUIPMENT: SIC 352 Value Added by Manufacture by State: 1963

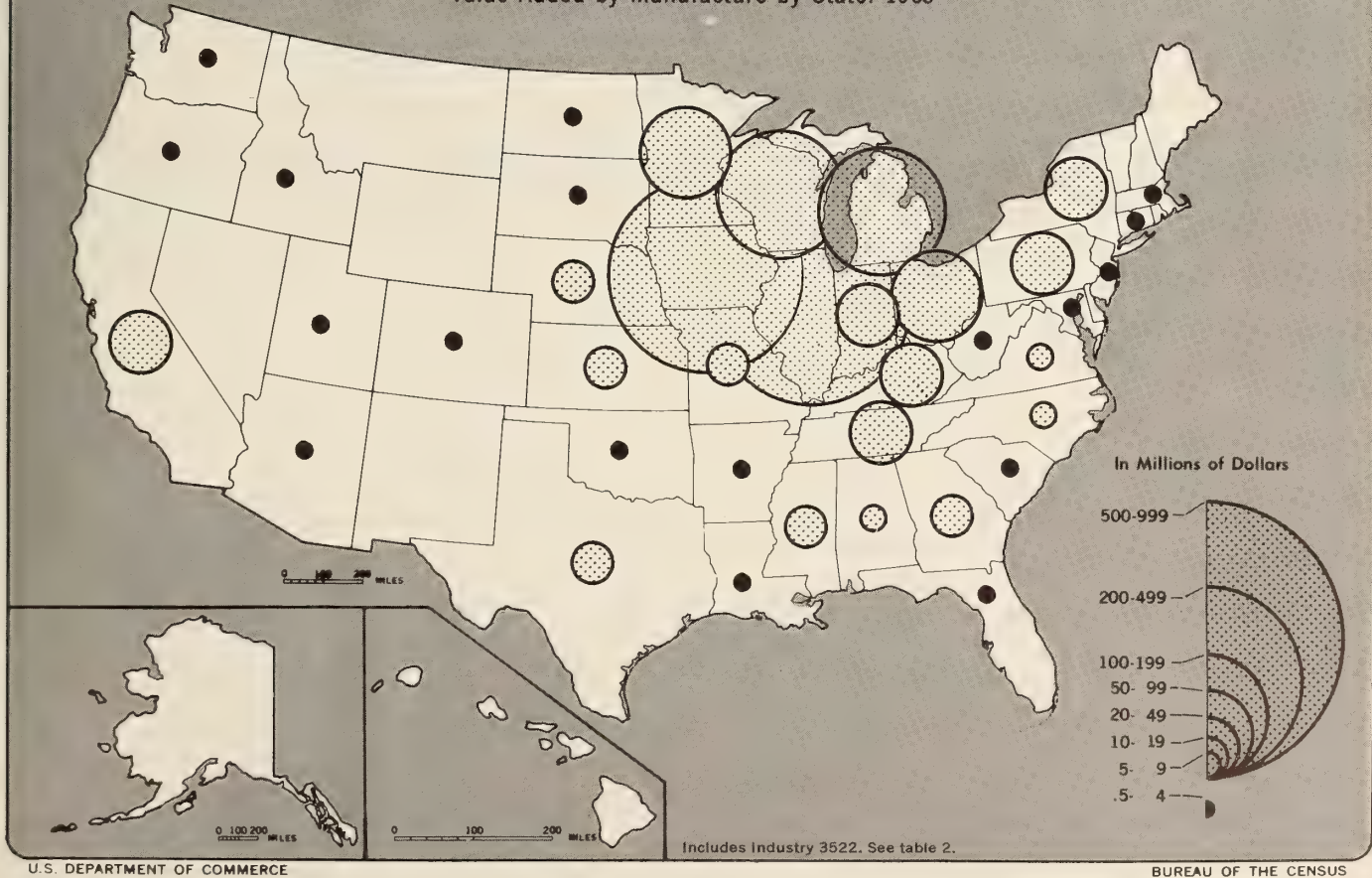






TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spec- ial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
	INDUSTRY 3511.—STEAM ENGINES AND TURBINES													
1963.....	17	22	21	30,917	237,519	19,894	38,933	141,738	379,875	242,730	616,416	19,394	85	82
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	33,133	245,573	21,108	41,287	145,233	408,389	252,662	657,723	16,700	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	33,847	238,478	21,082	41,082	138,022	419,960	251,128	695,956	18,977	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	36,616	244,930	23,437	44,712	142,794	505,514	260,675	758,280	16,531	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	40,320	260,024	25,480	50,025	155,127	497,613	287,462	813,957	18,666	(NA)	(NA)
1958 <sup>2</sup> .....	21	28	25	45,347	274,589	29,319	57,791	172,091	568,643	361,126	961,769	20,492	78	94
	INDUSTRY 3519.—INTERNAL COMBUSTION ENGINES													
1963.....	120	143	81	55,687	371,800	41,754	84,996	260,005	733,628	745,760	1,473,574	34,751	86	85
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	53,112	335,514	41,150	78,493	231,211	623,294	708,434	1,316,936	30,152	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	46,139	280,928	34,226	65,291	184,102	501,018	561,751	1,079,955	31,993	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	50,003	297,477	37,211	71,157	199,009	520,411	612,159	1,158,550	24,729	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	55,878	336,590	42,668	84,412	228,952	656,068	682,947	1,296,850	35,609	(NA)	(NA)
1958 <sup>2</sup> .....	97	113	76	52,004	286,816	42,607	72,564	190,997	520,443	552,327	1,085,808	50,628	90	82
	INDUSTRY 3522.—FARM MACHINERY AND EQUIPMENT													
1963.....	1,481	1,568	558	112,614	689,122	84,650	168,911	476,827	1,328,381	1,536,761	2,842,243	64,431	89	95
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	106,222	618,178	77,139	151,709	413,012	1,205,892	1,335,014	2,481,979	42,999	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	102,538	579,271	76,371	150,710	382,040	1,057,083	1,251,580	2,339,537	45,946	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	99,115	540,245	71,110	141,666	355,533	941,021	1,162,115	2,162,640	55,636	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	113,153	617,791	84,803	167,685	423,986	1,172,210	1,450,737	2,559,491	42,824	(NA)	(NA)
1958 <sup>2</sup> .....	1,389	1,469	509	108,586	550,998	79,922	153,962	373,240	1,087,836	1,318,416	2,421,873	54,655	90	94

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: **All employees:** For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). **Production workers:** For 1947 and prior years figures represent an average of 12 monthly figures. **Value added:** Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. **Cost of materials:** Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. **Value of shipments:** Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>2</sup>A revision in the definition of this industry was made in the 1957 Standard Industrial Classification so that data for the industry are not available for earlier years.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
GROUP 351.—ENGINES AND TURBINES													
Total.....	165	102	86,604	609,319	61,648	123,929	401,743	1,113,503	988,490	2,089,990	54,145	97,351	1,089,086
New England.....	14	10	9,858	71,270	6,695	13,126	45,427	119,489	60,584	176,599	6,202	9,378	112,383
Middle Atlantic.....	25	15	23,849	180,900	16,482	33,015	115,866	307,799	213,382	515,824	15,317	32,420	414,659
New Jersey.....	8	3	220	992	196	389	817	1,003	2,920	3,883	116	( <sup>2</sup> )	( <sup>2</sup> )
East North Central..	67	52	46,798	314,627	34,509	69,614	216,122	618,051	656,606	1,271,262	30,392	47,827	479,618
Illinois.....	9	8	8,551	59,721	5,760	11,040	37,572	97,348	114,743	208,094	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Michigan.....	22	16	12,747	90,964	9,451	19,537	63,938	182,971	239,828	431,471	(D)	13,088	131,314
Wisconsin.....	22	20	17,224	107,934	13,205	26,444	77,124	200,678	194,244	391,725	6,570	18,218	183,373
West North Central..	17	10	2,452	15,032	1,647	3,197	9,193	19,984	17,520	40,112	734	3,166	26,711
South.....	16	5	617	3,929	495	1,226	2,717	11,917	14,870	24,632	238	214	1,536
West.....	26	10	3,030	23,561	1,820	3,751	12,418	36,263	25,528	61,561	1,262	4,346	54,179
INDUSTRY 3511.—STEAM ENGINES AND TURBINES													
Total.....	22	21	30,917	237,519	19,894	38,933	141,738	379,875	242,730	616,416	19,394	45,347	568,643
Connecticut.....	3	3	381	2,384	262	559	1,441	4,928	2,534	7,651	92	( <sup>2</sup> )	( <sup>2</sup> )
All other states....	19	18	30,536	235,135	19,632	38,374	140,297	374,947	240,196	608,765	19,302	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3519.—INTERNAL COMBUSTION ENGINES													
Total.....	143	81	55,687	371,800	41,754	84,996	260,005	733,628	745,760	1,473,574	34,751	52,004	520,443
New Jersey.....	8	3	220	992	196	389	817	1,003	2,920	3,883	116	( <sup>2</sup> )	( <sup>2</sup> )
Illinois.....	9	8	8,551	59,721	5,760	11,040	37,572	97,348	114,743	208,094	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Michigan.....	22	16	12,747	90,964	9,451	19,537	63,938	182,971	239,828	431,471	(D)	( <sup>2</sup> )	( <sup>2</sup> )
California.....	19	6	727	5,814	456	948	3,138	13,036	11,208	23,269	465	( <sup>2</sup> )	( <sup>2</sup> )
All other states....	85	48	33,442	214,309	25,891	53,082	154,540	439,270	377,061	806,857	21,416	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3522.—FARM MACHINERY AND EQUIPMENT													
Total.....	1,568	558	112,614	689,122	84,650	168,911	476,827	1,328,381	1,536,761	2,842,243	64,431	108,586	1,087,836
New England.....	28	2	190	1,053	144	300	715	2,042	1,882	3,914	50	287	2,638
Middle Atlantic.....	83	33	5,090	31,765	3,174	6,801	16,951	70,229	59,132	130,080	4,358	6,780	72,355
New Jersey.....	12	4	198	1,078	154	335	786	1,800	2,051	3,769	50	( <sup>2</sup> )	( <sup>2</sup> )
East North Central..	407	196	52,899	335,780	39,483	79,193	232,795	645,883	790,526	1,416,215	31,441	55,944	584,379
Ohio.....	73	33	6,400	36,238	5,140	10,363	27,285	64,312	101,295	163,192	2,025	5,273	45,043
Indiana.....	65	36	5,222	28,717	3,783	7,264	18,201	49,001	69,065	116,032	1,303	4,850	44,014
Illinois.....	110	62	23,567	156,967	17,972	35,366	111,895	287,674	325,843	607,160	20,754	26,730	285,018
Michigan.....	67	26	5,230	34,918	3,975	8,560	24,445	104,088	140,292	238,058	1,773	4,786	78,642
Wisconsin.....	92	39	12,480	78,940	8,613	17,640	50,969	140,808	154,031	291,773	5,586	14,305	131,662
West North Central..	414	159	33,252	205,624	25,421	49,980	147,048	404,450	433,200	837,154	19,418	29,186	293,825
Minnesota.....	85	39	5,476	29,446	4,207	8,142	20,720	61,794	71,741	134,071	2,160	4,404	45,082
Iowa.....	119	55	21,605	146,413	16,812	32,499	106,272	286,500	281,334	559,662	14,590	18,888	190,287
Missouri.....	42	11	2,080	10,797	1,421	3,048	8,061	15,160	35,389	57,303	1,003	1,922	21,630
North Dakota.....	14	3	350	1,587	278	579	1,067	2,614	4,026	7,132	159	( <sup>2</sup> )	( <sup>2</sup> )
South Dakota.....	12	3	192	866	135	264	535	2,212	2,045	4,308	82	( <sup>2</sup> )	( <sup>2</sup> )
Nebraska.....	58	20	1,582	7,182	1,191	2,433	4,654	17,308	18,480	36,295	439	1,661	14,445
Kansas.....	84	28	1,967	9,333	1,377	3,015	5,739	18,862	20,185	38,383	985	1,953	19,215
South Atlantic.....	121	42	4,456	19,297	3,493	6,942	12,089	38,282	49,050	85,996	1,793	3,180	22,341
Virginia.....	12	7	527	2,209	460	990	1,681	5,403	3,519	8,067	297	282	1,985
North Carolina.....	26	11	1,299	5,287	1,109	2,219	3,230	8,669	11,506	20,504	297	849	5,043
Georgia.....	30	13	1,653	7,322	1,210	2,348	4,265	14,119	21,523	35,643	658	1,304	8,809
Florida.....	41	6	426	1,955	300	589	1,177	4,189	5,880	9,999	200	260	2,113
East South Central..	66	29	9,222	55,263	7,361	14,146	40,508	92,346	118,842	211,720	4,221	6,876	62,006
Tennessee.....	19	6	2,738	18,988	2,000	3,873	12,881	36,244	25,591	63,554	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Alabama.....	19	9	898	3,881	718	1,393	2,336	9,003	11,488	20,125	432	587	4,009
West South Central..	122	38	2,596	11,784	1,834	3,906	7,462	22,881	28,447	50,277	962	2,087	13,733
Arkansas.....	15	7	284	1,224	231	476	862	2,580	2,609	5,129	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Louisiana.....	11	4	515	2,407	335	799	1,557	3,986	7,731	11,313	203	305	2,123
Oklahoma.....	16	6	369	1,899	290	576	1,247	3,383	3,612	7,001	280	263	1,644
Texas.....	80	21	1,428	6,254	978	2,055	3,796	12,932	14,495	26,834	(D)	1,473	9,712

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
	INDUSTRY 3522.—FARM MACHINERY AND EQUIPMENT—Continued												
Mountain.....	84	12	1,116	6,037	901	1,873	4,324	10,347	11,821	22,441	625	763	6,406
Idaho.....	31	3	303	1,579	250	534	1,233	2,428	3,445	6,025	87	237	1,686
Colorado.....	27	5	425	2,401	327	673	1,525	4,838	3,621	8,501	168	320	3,374
Arizona.....	11	2	203	1,201	164	334	865	1,784	3,446	5,272	287	( <sup>2</sup> )	( <sup>2</sup> )
Utah.....	4	2	139	621	124	260	519	951	758	1,668	39	112	624
Pacific.....	243	47	3,793	22,519	2,839	5,770	14,935	41,921	43,861	84,446	1,563	3,483	30,153
Washington.....	29	6	341	1,886	269	542	1,331	3,374	3,929	7,174	131	322	2,430
California.....	194	34	3,122	18,670	2,303	4,660	12,165	34,979	36,635	70,166	1,367	( <sup>2</sup> )	( <sup>2</sup> )

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 351-, Engines and Turbines, total: New England—New Hampshire, 1 (1-19); Massachusetts, 6 (8,198); Rhode Island, 1 (1-19); Connecticut, 6 (1,000-2,499); Middle Atlantic—New York, 10 (7,551); Pennsylvania, 8 (16,078); East North Central—Ohio, 8 (2,282); Indiana, 6 (5,994); West North Central—Minnesota, 6 (693); Iowa, 5 (1,000-2,499); Missouri, 6 (250-499); South Atlantic—North Carolina, 1 (1-19); Georgia, 2 (1-19); Florida, 6 (20-99); East South Central—Tennessee, 1 (1-19); West South Central—Louisiana, 1 (20-99); Oklahoma, 1 (1-19); Texas, 4 (465); Mountain—Colorado, 1 (100-249); Pacific—Washington, 3 (20-99); Oregon, 1 (20-99); California, 21 (2,500-4,999).

SIC 3511, Steam Engines and Turbines: New England—Massachusetts, 4 (5,000-9,999); Middle Atlantic—New York, 3 (6,246); Pennsylvania, 6 (10,000 and over); East North Central—Ohio, 1 (20-99); Wisconsin, 1 (1,000-2,499); West North Central—Iowa, 1 (100-249); South Atlantic—Florida, 1 (20-99); Pacific—California, 2 (1,000-2,499);

SIC 3519, Internal Combustion Engines: New England—New Hampshire, 1 (1-19); Massachusetts, 2 (1,000-2,499); Rhode Island, 1 (1-19); Connecticut, 3 (1,000-2,499); Middle Atlantic—New York, 6 (1,305); Pennsylvania, 2 (1,000-2,499); East North Central—Ohio, 7 (1,000-2,499); Indiana, 6 (5,994); Wisconsin, 21 (10,000 and over); West North Central—Minnesota, 6 (693); Iowa, 4 (1,000-2,499); Missouri, 6 (250-499); South Atlantic—North Carolina, 1 (1-19); Georgia, 2 (1-19); Florida, 5 (20-99); East South Central—Tennessee, 1 (1-19); West South Central—Louisiana, 1 (20-99); Oklahoma, 1 (1-19); Texas, 4 (465); Mountain—Colorado, 1 (100-249); Pacific—Washington, 3 (20-99); Oregon, 1 (20-99).

SIC 3522, Farm Machinery and Equipment: New England—Maine, 8 (20-99); New Hampshire, 1 (1-19); Vermont, 4 (20-99); Massachusetts, 7 (20-99); Rhode Island, 1 (1-19); Connecticut, 7 (20-99); Middle Atlantic—New York, 36 (1,940); Pennsylvania, 35 (2,952); South Atlantic—Delaware, 2 (20-99); Maryland, 2 (20-99); West Virginia, 1 (250-499); South Carolina, 7 (100); East South Central—Kentucky, 11 (4,090); Mountain—Montana, 8 (20-99); New Mexico, 3 (1-19); Pacific—Oregon, 19 (250-499); Hawaii, 1 (20-99);

<sup>2</sup>This State or region was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.



TABLE 3. Detailed Statistics: 1963

Item	Steam engines and turbines (SIC 3511)	Internal combustion engines (SIC 3519)	Farm machinery and equipment (SIC 3522)
Primary product specialization ratio <sup>1</sup> .....	.85	.86	.89
Coverage ratio <sup>2</sup> .....	.82	.85	.95
Establishments, total.....number..	22	143	1,568
With 1 to 19 employees.....do..	1	62	1,010
With 20 to 99 employees.....do..	5	27	407
With 100 employees or more.....do..	16	54	151
Proprietors and working partners.....number..	0	28	706
All employees (average for the year).....do..	30,917	55,687	112,614
Payroll (all employees), total for year.....\$1,000..	237,519	371,800	689,122
Production workers:			
Average for the year.....number..	19,894	41,754	84,650
March.....do..	19,729	42,230	88,592
May.....do..	19,826	40,935	86,961
August.....do..	20,055	41,989	84,720
November.....do..	19,965	41,862	82,327
Man-hours.....1,000..	38,933	84,996	168,911
January-March.....do..	9,834	21,916	44,683
April-June.....do..	9,572	21,542	44,277
July-September.....do..	9,362	20,015	38,476
October-December.....do..	10,165	21,523	41,475
Wages.....\$1,000..	141,738	260,005	476,827
Cost of materials, etc., total.....do..	242,730	745,760	1,536,761
Materials, parts, containers, and supplies consumed.....do..	219,101	694,115	1,426,108
Cost of resales.....do..	6,957	35,614	72,001
Fuels consumed.....do..	6,006	4,882	14,380
Electric energy:			
Purchased:			
Quantity.....million kw.-hrs..	309	527	735
Cost.....\$1,000..	3,278	6,434	10,387
Generated less sold.....million kw.-hrs..	140	70	550
Contract work.....\$1,000..	7,388	4,715	13,885
Value of shipments (including resales), total.....do..	616,416	1,473,574	2,842,243
Value of resales.....do..	7,825	50,205	89,619
Value added by manufacture, adjusted.....do..	379,875	733,628	1,328,381
Manufacturers' inventories:			
Beginning of year, total.....do..	172,965	272,176	633,879
Finished products.....do..	10,125	71,139	253,194
Work-in-process.....do..	130,529	150,151	197,930
Materials, supplies, fuel, etc.....do..	32,311	50,886	182,755
End of year, total.....do..	176,156	279,271	669,266
Finished products.....do..	9,702	66,558	267,168
Work-in-process.....do..	137,141	160,546	206,855
Materials, supplies, fuel, etc.....do..	29,313	52,167	195,243
Expenditures for plant and equipment, total.....do..	19,731	37,590	68,379
New, total.....do..	19,394	34,751	64,431
New structures and additions to plant.....do..	1,671	6,268	17,006
New machinery and equipment.....do..	17,723	28,483	47,425
Used plant and equipment.....do..	337	2,839	3,948
Selected operating ratios:			
Payroll/Total employment.....	7,683	6,677	6,119
Production workers/Total employment.....	.64	.75	.75
Man-hours/Production workers.....	1,957	2,036	1,995
Production worker wages/Man-hours.....	3.64	3.06	3.82
Cost of materials and payrolls/Total value of shipments.....	.78	.76	.79
Cost of materials/Total value of shipments.....	.39	.51	.55
Adjusted value added/Total employment.....	12,287	13,174	11,796
Salaries and wages/Adjusted value added.....	.63	.51	.52

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3511.--STEAM ENGINES AND TURBINES											
Establishments.....number..	22	-	-	1	-	5	4	1	2	5	4
All employees:											
Total.....do....	30,917	-	-	408	-	(D)	2,148	(D)	(D)	28,361	(D)
Payroll.....\$1,000..	237,519	-	-	2,420	-	(D)	13,298	(D)	(D)	221,801	(D)
Value added, adjusted.....do....	379,875	-	-	3,439	-	(D)	23,004	(D)	(D)	353,432	(D)
Value of shipments.....do....	616,416	-	-	6,202	-	(D)	41,743	(D)	(D)	568,471	(D)
Capital expenditures, new...do....	19,394	-	-	50	-	(D)	891	(D)	(D)	18,453	(D)
INDUSTRY 3519.--INTERNAL COMBUSTION ENGINES											
Establishments.....number..	143	35	11	16	18	9	17	10	7	15	5
All employees:											
Total.....do....	55,687	62	78	238	555	641	2,743	4,144	5,405	21,868	19,953
Payroll.....\$1,000..	371,800	465	326	1,257	3,392	3,420	18,014	26,121	32,212	147,545	139,048
Value added, adjusted.....do....	733,628	822	637	1,863	5,273	8,916	30,536	61,058	54,519	273,002	297,002
Value of shipments.....do....	1,473,574	1,411	1,171	3,644	10,619	21,488	69,000	140,107	126,875	518,417	580,842
Capital expenditures, new...do....	34,751	25	37	80	235	313	1,163	2,166	3,043	13,210	14,479
INDUSTRY 3522.--FARM MACHINERY AND EQUIPMENT											
Establishments.....number..	1,568	526	237	247	264	143	80	30	21	12	8
All employees:											
Total.....do....	112,614	833	1,606	3,415	8,007	10,050	12,829	10,283	15,987	19,509	30,095
Payroll.....\$1,000..	689,122	4,068	7,220	15,966	40,222	50,445	67,024	60,266	102,133	132,006	209,772
Value added, adjusted.....do....	1,328,381	6,017	13,754	30,197	84,467	107,077	142,100	112,768	229,639	232,051	370,311
Value of shipments.....do....	2,842,243	20,808	30,248	64,392	175,525	222,654	310,993	271,393	473,475	499,359	773,396
Capital expenditures, new...do....	64,431	4,310	739	1,424	3,661	4,011	5,537	4,216	7,045	7,287	26,201

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

<sup>1</sup>Includes capital expenditures of approximately \$2-\$5 million for plants under construction but not in operation.

TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(D)	(D)	(D)	(D)	Col. B Col. A (percent)	(D)	(D)	(D)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3511	Steam engines and turbines.....1963..	616,416	485,475	87,703	43,238	85	589,101	485,475	103,626	82
	1958..	961,769	705,567	198,039	58,163	78	753,988	705,567	48,421	94
3519	Internal combustion engines.....1963..	1,473,574	1,210,332	196,901	66,341	86	1,423,926	1,210,332	213,594	85
	1958..	1,085,808	937,775	99,924	48,109	90	1,132,041	937,775	194,266	82
3522	Farm machinery and equipment.....1963..	2,842,243	2,412,390	307,867	121,986	89	2,542,109	2,412,390	129,719	95
	1958..	2,421,873	2,046,306	220,467	155,100	90	2,172,558	2,046,306	126,252	94

Note: See Introduction for an explanation of terms used.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Steam engines and turbines (SIC 3511)	Other industries
<b>STEAM ENGINES AND TURBINES INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	616,416	(X)
	Primary products, total.....	589,101	485,475	103,626
35111	Steam, gas, and hydraulic generator set units and parts.....	(D)	(D)	(D)
35112	Steam, gas, and hydraulic turbines and parts; steam engines and parts.....	(D)	(D)	(D)
	Secondary products, total.....	(X)	87,703	(X)
34431	Heat exchangers and steam condensers.....	(X)	(10-20)	(X)
34941	Metal valves for piping systems (except plumbing and heating valves).....	(X)	(2-5)	(X)
35197	Parts and accessories for internal combustion engines.....	(X)	(over 2)	(X)
35614	Air and gas compressors, except refrigeration compressors.....	(X)	(over 2)	(X)
35662	Speed changers, industrial high speed drives and gears.....	(X)	(5-10)	(X)
36212	Integral horsepower motors and generators, except land transportation.....	(X)	(over 2)	(X)
36215	Motor generator sets and other rotating equipment.....	(X)	(over 2)	(X)
36216	Parts and supplies for motors, generators, and motor generator sets, except land transportation.....	(X)	(2-5)	(X)
37224	Aircraft engine parts and accessories.....	(X)	(over 2)	(X)
37291	Other aircraft parts and auxiliary equipment.....	(X)	(over 2)	(X)
	Miscellaneous receipts, total.....	(X)	43,238	(X)
	Contract and commission work.....	(X)	4,909	(X)
	Sales of products bought and resold.....	(X)	7,825	(X)
	Iron and steel production scrap.....	(X)	724	(X)
	Receipts for installation.....	(X)	2,676	(X)
	Receipts for research and development work.....	(X)	949	(X)
	Receipts for repair work.....	(X)	16,215	(X)
	Other miscellaneous receipts.....	(X)	9,940	(X)
3511-	Listing of other industries with over \$2 million shipment:			
1999	Ordnance and accessories, n.e.c.....	(X)	(X)	(over 2)
3561	Pumps and compressors.....	(X)	(X)	(10-20)
3621	Motors and generators.....	(X)	(X)	(over 2)
3722	Aircraft engines and parts.....	(X)	(X)	42,755
3729	Aircraft equipment, n.e.c.....	(X)	(X)	(5-10)
3731	Ship building and repairing.....	(X)	(X)	(2-5)
		All industries	Internal combustion engines (SIC 3519)	Other industries
<b>INTERNAL COMBUSTION ENGINES INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	1,473,574	(X)
	Primary products, total.....	1,423,926	1,210,332	213,594
35191	Gasoline engines, except outboard, aircraft, and automotive engines.....	270,108	238,464	31,644
35192	Diesel and semidiesel engines.....	464,428	409,292	55,136
35193	Gas engines (except gas turbines).....	22,088	10,331	11,757
35195	Outboard motors.....	183,767	157,248	26,519
35196	Other internal combustion engines (including converted engines and tank engines).....	480,602	392,351	88,251
35197	Parts and accessories for internal combustion engines.....	2,933	2,646	287
35190	Internal combustion engines, n.s.k.....	(X)	196,901	(X)
	Secondary products, total.....	(X)	196,901	(X)
33214	All other gray iron castings.....	(X)	2,149	(X)
36214	Prime mover generator sets, except steam or hydraulic turbine.....	(X)	38,023	(X)
37175	Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers.....	(X)	39,885	(X)
	Other secondary products.....	(X)	116,844	(X)
19990	Ordnance and accessories, n.e.c.....	(X)	(over 2)	(X)
34431	Heat exchangers and steam condensers.....	(X)	(2-5)	(X)

See footnotes at end of table.

**TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:**  
**1963—Continued**

Prod. class code	Class of products and miscellaneous receipts	All industries	Internal combustion engines (SIC 3519)	Other industries
<b>INTERNAL COMBUSTION ENGINES INDUSTRY—Continued</b>				
Secondary products—continued				
Other secondary products—continued				
34510	Screw machine products.....	(X)	(over 2)	(X)
35313	Parts and attachments for tracklaying and contractors' off-highway wheel tractors.....	(X)	(2-5)	(X)
35370	Industrial trucks and tractors.....	(X)	(over 2)	(X)
35614	Air and gas compressors, except refrigeration compressors.....	(X)	(10-20)	(X)
35616	Parts and attachments for pumps, air and gas compressors, and pumping equipment.....	(X)	(over 2)	(X)
37176	Parts and accessories for passenger cars, trucks, and busses, shipped to other motor vehicle manufacturers.....	(X)	(5-10)	(X)
37177	Rebuilt automotive parts, excluding carburetors.....	(X)	(10-20)	(X)
37222	Aircraft engines for other than U.S. military customers.....	(X)	(over 2)	(X)
37224	Aircraft engine parts and accessories.....	(X)	(5-10)	(X)
37413	Parts for locomotives, for sale separately, and rebuilt locomotives.....	(X)	(over 2)	(X)
Miscellaneous receipts, total.....		(X)	66,341	(X)
Contract and commission work.....		(X)	5,338	(X)
Sales of products bought and resold.....		(X)	50,205	(X)
Scrap and salable refuse.....		(X)	2,635	(X)
Research and development.....		(X)	2,969	(X)
Other.....		(X)	5,194	(X)
Listing of other industries with over \$2 million shipments of the primary product classes:				
35191	3522 Farm machinery and equipment.....	(X)	(X)	17,939
	3621 Motors and generators.....	(X)	(X)	(2-5)
	3717 Motor vehicles and parts.....	(X)	(X)	8,763
35192	3522 Farm machinery and equipment.....	(X)	(X)	(2-5)
	3531 Construction machinery.....	(X)	(X)	(over 2)
	3741 Locomotives and parts.....	(X)	(X)	(over 2)
35193	3561 Pumps and compressors.....	(X)	(X)	7,177
35195	3553 Woodworking machinery.....	(X)	(X)	(5-10)
35196	3621 Motors and generators.....	(X)	(X)	(over 2)
	3722 Aircraft engines and parts.....	(X)	(X)	(over 2)
35197	3321 Gray iron foundries.....	(X)	(X)	(over 2)
	3511 Steam engines and turbines.....	(X)	(X)	(over 2)
	3522 Farm machinery and equipment.....	(X)	(X)	(2-5)
	3531 Construction machinery.....	(X)	(X)	(over 2)
	3532 Mining machinery and equipment.....	(X)	(X)	(over 2)
	3553 Woodworking machinery.....	(X)	(X)	(2-5)
	3561 Pumps and compressors.....	(X)	(X)	2,420
	3679 Electronic components, n.e.c.....	(X)	(X)	(over 2)
	3717 Motor vehicles and parts.....	(X)	(X)	10,289
	3722 Aircraft engines and parts.....	(X)	(X)	10,885
	3741 Locomotives and parts.....	(X)	(X)	(over 2)
		All industries	Farm machinery and equipment (SIC 3522)	Other industries
Total shipments and receipts of the industry.....		(X)	2,842,243	(X)
Primary products.....		2,542,109	2,412,390	129,719
35222	Wheel tractors and parts and attachments (except garden and contractors off-highway).....	808,396	766,523	41,873
35223	Planting, seeding, and fertilizing machinery and parts.....	115,720	112,125	3,595
35224	Plows, listers, harrows, rollers, pulverizers, and stalk cutters, and parts.....	192,837	188,868	3,969
35225	Harvesting machinery, and parts.....	395,299	390,247	5,052
35226	Haying machinery and parts.....	133,804	132,836	968
35227	Lawn mowers and parts.....	268,661	245,108	23,553
35228	All other farm machinery and equipment.....	555,934	505,868	50,066
35220	Farm machinery and equipment, n.s.k.....	71,458	70,815	643
Secondary products.....		(X)	307,867	(X)
33214	All other gray iron castings.....	(X)	20,892	(X)
35191	Gasoline engines, except outboard, aircraft, and automotive engines.....	(X)	17,939	(X)
35311	Contractors' off-highway wheel tractors, except parts and attachments.....	(X)	4,622	(X)
35313	Parts and attachments for tracklaying and contractors' off-highway wheel tractors.....	(X)	11,129	(X)
<b>FARM MACHINERY AND EQUIPMENT INDUSTRY</b>				

See footnotes at end of table.



TABLE 5B. **Industry-Product Analysis—Shipments by Product Class and Industry:**  
**1963—Continued**

Prod. class code	Class of products and miscellaneous receipts	All industries	Farm machinery and equipment (SIC 3522)	Other industries
FARM MACHINERY AND EQUIPMENT INDUSTRY—Continued				
Secondary products—Continued				
35317	Integral tractor-shovel loaders (wheel and tracklaying types) including parts.....	(X)	18,648	(X)
35318	Scrapers, graders, rollers, and off-highway trucks, trailers, and wagons, excluding parts.....	(X)	26,130	(X)
35319	Other construction machinery and equipment, including construction machinery parts, n.e.c.....	(X)	10,862	(X)
35513	Other industrial food products machinery, including parts and attachments for all types of industrial food products.....	(X)	3,358	(X)
37176	Parts and accessories for passenger cars, trucks, and busses, shipped to other than motor vehicle manufacturers.....	(X)	4,139	(X)
37992	Other transportation equipment.....	(X)	24,946	(X)
	Other secondary products.....	(X)	165,202	(X)
25141	Metal household dining and breakfast furniture.....	(X)	(over 2)	(X)
33911	Drop upset and press, steel forgings (closed die).....	(X)	(5-10)	(X)
34611	Vitreous enameled products.....	(X)	(over 2)	(X)
34612	Job stampings, except automotive.....	(X)	(5-10)	(X)
34613	Job stampings, automotive.....	(X)	(5-10)	(X)
34990	Fabricated metal products, n.e.c.....	(X)	(2-5)	(X)
35192	Diesel and semidiesel engines.....	(X)	(2-5)	(X)
35197	Parts and accessories for internal combustion engines.....	(X)	(2-5)	(X)
35312	Tracklaying-type tractors, except parts and attachments.....	(X)	(10-20)	(X)
35370	Industrial trucks and tractors.....	(X)	(2-5)	(X)
35441	Special dies and tools, die sets, jigs and fixtures.....	(X)	(2-5)	(X)
35484	Automotive maintenance equipment.....	(X)	(5-10)	(X)
35511	Dairy and milk products plant machinery and equipment, including dairy bottling machines.....	(X)	(2-5)	(X)
35531	Woodworking machinery (except machinery designed primarily for home workshops, garages, and service shops), including parts, attachments and accessories.....	(X)	(2-5)	(X)
35611	Industrial pumps, except hydraulic fluid power.....	(X)	(2-5)	(X)
35690	General industrial machinery, n.e.c.....	(X)	(2-5)	(X)
36311	Electric household ranges and ovens and surface cooking unit equipment and parts (except small appliances).....	(X)	(over 2)	(X)
37150	Truck trailers.....	(X)	(2-5)	(X)
37175	Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers.....	(X)	(10-20)	(X)
39430	Baby carriages and children's vehicles, except bicycles.....	(X)	(2-5)	(X)
	Miscellaneous receipts.....	(X)	121,986	(X)
	Contract and commission work.....	(X)	11,703	(X)
	Sales of products bought and resold.....	(X)	89,619	(X)
	Scrap and salable refuse and miscellaneous repair work.....	(X)	9,956	(X)
	Other.....	(X)	10,708	(X)
Listing of other industries with over \$2 million shipments of the primary product classes:				
35222	3321 Gray iron foundries.....	(X)	(X)	(over 2)
	3531 Construction machinery.....	(X)	(X)	(10-20)
	3717 Motor vehicles and parts.....	(X)	(X)	17,729
35225	3949 Sporting and athletic goods.....	(X)	(X)	(over 2)
35227	3494 Valves and pipe fittings.....	(X)	(X)	(over 2)
	3634 Electric housewares and fans.....	(X)	(X)	(over 2)
	3751 Motorcycles, bicycles, and parts.....	(X)	(X)	(over 2)
35228	3531 Construction machinery.....	(X)	(X)	2,861
	3561 Pumps and compressors.....	(X)	(X)	(2-5)
	3717 Motor vehicles and parts.....	(X)	(X)	7,227
	3732 Boat building and repairing.....	(X)	(X)	(over 2)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.  
 applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(NA) Not available.

(X) Not

TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Total shipments including interplant transfers					
		1963			1958		
		Number of units	Total	Value (\$1,000)	Number of units	Total	Value (\$1,000)
			Generating capacity (1,000 kw)			Generating capacity (1,000 kw)	
3511- --	STEAM ENGINES AND TURBINES, TOTAL.....	(X)	(X)	589,101	(X)	(X)	753,988
35111 --	Steam, gas, and hydraulic turbine generator set units and parts.....	(X)	(X)	589,101	(X)	(X)	489,477
35112 --	Steam, gas, and hydraulic turbines.....	(X)	(X)		(X)	(X)	264,511
	Steam turbine generator sets:						
35111 12	Under 2,000 kw.....	372	17,533	289,009	229	149	22,470
35111 15	2,000-9,999 kw.....				124	1,647	59,986
35111 17	10,000-49,999 kw.....				119	18,604	369,376
35111 21	50,000-99,999 kw.....						
35111 24	100,000-199,999 kw.....						
35111 35	200,000 kw and over.....						
35111 41	Water turbine (hydraulic) generator sets.....	(X)	(X)	146,743	(X)	(X)	37,645
35111 45	Gas turbine generator sets.....	(X)	(X)		(X)	(X)	
35111 51	Parts for generator set units (steam, water, gas, etc.).....	(X)	(X)		(X)	(X)	
35112 61	Hydraulic turbines.....	(X)	(X)	15,981	178	3,782	39,594
35112 71	Parts and accessories for hydraulic turbines.....	(X)	(X)		(X)	(X)	50,340
35112 72	Parts and accessories for steam engines and steam turbines.....	(X)	(X)		(X)	(X)	
			Horsepower capacity (1,000 hp.)			Horsepower capacity (1,000 hp.)	
35112 21	Mechanical drive steam turbines:						
	Marine, including Navy.....	241	210	4,980	412	260	20,104
	Number shipped by horsepower capacity (rated or normal):						
35112 22	Under 50 hp.....	34	(X)	(X)	329	(X)	(X)
35112 23	50-499 hp.....	147	(X)	(X)		(X)	(X)
35112 24, 25, 26	500 hp. and over.....	60	(X)	(X)	83	(X)	(X)
35112 29	Other mechanical drive steam turbines.....	2,071	894	15,315	2,471	674	19,533
	Number shipped by horsepower capacity (rated or normal):						
35112 32	Under 50 hp.....	840	(X)	(X)	1,391	(X)	(X)
35112 33	50-499 hp.....	865	(X)	(X)	803	(X)	(X)
35112 34	500-999 hp.....	194	(X)	(X)	128	(X)	(X)
35112 35	1,000-9,999 hp.....	162	(X)	(X)	149	(X)	(X)
35112 36	10,000 hp. and over.....	10	(X)	(X)		(X)	(X)
35112 41	Steam turbine-gear units:						
35112 51	Marine, including Navy.....	2102	1,431	341,797	2456	1,600	370,250
	Other steam turbine-gear units.....	304	87	32,913	376	93	33,983
	Number shipped by horsepower capacity (rated or normal):						
35112 52	Under 50 hp.....	55	(X)	(X)	103	(X)	(X)
35112 53	50-499 hp.....	209	(X)	(X)	207	(X)	(X)
35112 54	500-999 hp.....	30	(X)	(X)	48	(X)	(X)
35112 55	1,000-9,999 hp.....	10	(X)	(X)	18	(X)	(X)
35112 74	Gas turbines (except aircraft).....	1,333	(X)	61,624	(X)	(X)	60,707
35112 73	Parts and accessories for gas turbines (except aircraft).....	(X)	(X)	10,739	(X)	(X)	
			Total shipments including interplant transfers				
			1963		1958		
			Quantity (number of engines)	Value (\$1,000)	Quantity (number of engines)	Value (\$1,000)	
3519- --	INTERNAL COMBUSTION ENGINES, TOTAL.....		(X)	1,423,926	(X)	1,132,041	
	Gasoline engines, except outboard, aircraft, automobile, truck, bus, and tank:						
35191 00	As reported in the census of manufactures <sup>4</sup> .....		(X)	270,108	(X)	230,239	
	As reported on Census Annual Form MA-35L <sup>4</sup> .....		6,284,999	267,430	5,206,921	230,069	
35192 --	Diesel and semidiesel engines.....		(X)	464,428	(X)	314,480	
	Diesel and semidiesel engines (except automotive):						
35192 10	As reported in the census of manufactures <sup>4</sup> .....		(X)	298,946	(X)	221,575	
	As reported on Census Annual Form MA-35L <sup>4</sup> .....		108,522	289,171	576,857	236,025	
35192 50	Diesel and semidiesel engines (automotive).....		63,149	165,482	31,491	92,905	
	Gas engines (except gas turbines):						
35193 10	As reported in the census of manufactures <sup>4</sup> .....		(X)	22,088	(X)	17,718	
	As reported on Census Annual Form MA-35L <sup>4</sup> .....		6,253	22,318	5,517	19,308	

See footnotes at end of table.



TABLE 6A-1. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers					
		1963		1958			
		Quantity (number of engines)	Value (\$1,000)	Quantity (number of engines)	Value (\$1,000)		
3519- --	INTERNAL COMBUSTION ENGINES—Continued	}	(X)	6183,767	{	(X)	157,879
35195 --	Outboard motors.....						
35196 --	Other internal combustion engines, including dual-fuel engines, tank engines, and all other converted engines, including jet propulsion engines, except aircraft (converted from purchased engines or from engines received from another plant of the same company).....						
35197 15	Parts and accessories for internal combustion engines (except aircraft, and automotive engines and gas turbines).....						
35190 00	Internal combustion engines, n.s.k.....	(X)	480,603	(X)	379,358		
		(X)	2,933	(X)	1,342		
		1963		1958			
		Total production (number of units)	Total shipments including interplant transfers				
			Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)	
3522- --	FARM MACHINERY, TOTAL.....	(X)	(X)	2,542,109	(X)	2,172,893	
35222 --	Wheel tractors and parts and attachments.....	(X)	(X)	808,396	(X)	687,271	
	As reported in the census of manufactures <sup>4</sup> .....	(X)	(X)	743,241	(X)	627,328	
	As reported on Census Form MA-35T <sup>4</sup> .....	(X)	(X)	770,676	(X)	657,721	
35222 81	Parts sold to other plants producing wheel tractors (except contractors' off-highway type, garden tractors and motor tillers).....	(X)	(X)	65,155	(X)	59,943	
35223 --	Planting, seeding, and fertilizing machinery and parts:						
	As reported in the census of manufactures <sup>4</sup> .....	(X)	(X)	115,720	(X)	95,984	
	As reported on Census Annual Form MA-35A <sup>4</sup> .....	(X)	(X)	111,912	(X)	101,197	
35224 --	Flows, listers, harrows, rollers, pulverizers, stalk cutters and parts, total.....	(X)	(X)	192,837	(X)	160,576	
	Harrows, rollers, pulverizers, stalk cutters, and similar equipment:						
	As reported in the census of manufactures <sup>4</sup> .....	(X)	(X)	115,959	(X)	83,029	
	As reported on Census Annual Form MA-35A <sup>4</sup> .....	(X)	(X)	114,791	(X)	92,054	
	Flows and listers:						
	As reported in the census of manufactures <sup>4</sup> .....	(X)	(X)	76,878	(X)	77,547	
	As reported on Census Annual Form MA-35A <sup>4</sup> .....	(X)	(X)	76,840	(X)	73,908	
35225 --	Harvesting machinery:						
	As reported in the census of manufactures <sup>4</sup> .....	(X)	(X)	395,299	(X)	321,434	
	As reported on Census Annual Form MA-35A <sup>4</sup> .....	(X)	(X)	386,007	(X)	311,916	
35226 --	Haying machinery:						
	As reported in the census of manufactures <sup>4</sup> .....	(X)	(X)	133,804	(X)	182,536	
	As reported on Census Annual Form MA-35A <sup>4</sup> .....	(X)	(X)	131,769	(X)	175,860	
35228 --	All other farm machinery and equipment (except lawn mowers and parts).....	(X)	(X)	555,934	(X)	450,571	
	Products included in the census of manufactures and on Form MA-35A:						
	As reported in the census of manufactures <sup>4</sup> .....	(X)	(X)	405,944	(X)	335,416	
	As reported on Census Annual Form MA-35A <sup>4</sup> .....	(X)	(X)	404,072	(X)	322,194	
	Windmill heads and towers:						
	As reported in the census of manufactures <sup>4</sup> .....	(X)	(X)	2,172	(X)	2,563	
	As reported on Census Monthly Form M-35G <sup>4</sup> .....	(X)	10,106	2,028	10,054	1,473	
35228 62	Windmill heads.....	(X)	7,562	1,597	6,983	987	
35228 63	Windmill towers.....	(X)	2,544	431	3,071	485	
35228 87	Hedge trimmers and shears, power:						
	Quantity reported.....	(X)	113,399	1,958	125,325	2,478	
	Quantity not reported.....	(X)	(X)	718	(X)	335	
35228 98	Other farm machines, equipment and parts including parts sold to other plants producing farm equipment.....	(X)	(X)	132,164	(X)	80,944	
35228 00	All other farm machines and equipment, including parts and attachments, n.s.k.....	(X)	(X)	12,977	(X)	28,835	

See footnotes at end of table.

TABLE 6A-1. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	1963			1958	
		Total production (number of units)	Total shipments including interplant transfers			
			Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3522- --	FARM MACHINERY—Continued					
35227 --	Lawn mowers, and parts.....	(X)	(X)	268,661	(X)	239,815
35227 11	Hand (reel-type).....	458,887	497,183	7,374	391,412	5,341
	Power:					
	Reel-type:					
35227 23	Nonriding.....	387,658	412,302	24,557	305,657	20,978
35227 25	Integral riding.....	7,258	6,640	3,156	18,569	4,138
	Rotary type:					
35227 41	Hand traction.....	2,465,581	2,396,426	98,606	2,250,288	99,776
	Power traction:					
35227 53	Nonriding.....	585,297	571,240	32,255	1,114,755	54,669
35227 55	Integral riding.....	259,492	262,232	40,364	142,739	23,505
35227 71	Parts for lawn mowers.....	(X)	(X)	21,940	(X)	15,681
35227 98	Other (including gang-cutting units, sickle-bar mowers shipped as complete units, lawn edgers, special cutting units, snow blowers and snow throwers).....	(X)	(X)	35,765	(X)	9,800
35227 00	Lawn mowers and parts, n.s.k.....	(X)	(X)	4,644	(X)	5,927
35220 00	Farm machinery and equipment, n.s.k.....	(X)	(X)	71,458	(X)	34,706

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

<sup>1</sup>Of this total, 27 had a rated capacity of 24,999 hp. or under and 51 had a capacity of 25,000 hp. or over.

<sup>2</sup>For 1958, the 456 units shipped had a rated horsepower capacity as follows: 20-199 hp., 96; 200-499 hp., 59; 500-999 hp., 218; and 1,000 hp. and over, 83. Comparable data for 1963 are not available.

<sup>3</sup>Includes the value of gears.

<sup>4</sup>For these products, figures were also collected in the Bureau of the Census commodity survey program. In lieu of asking for detailed statistics on these products in the census of manufactures, respondents were asked to report only value of shipments for specified groups of products for which separate figures had previously been collected in the commodity survey. In most cases, the value figures reported in the census of manufactures for each group of products agreed closely with the corresponding figures reported in the commodity survey. However, there were minor differences between the census figures and the commodity survey figures. These variations were due primarily to the following reasons:

- Better coverage in census of manufactures program. Coverage in the annual surveys will be supplemented by adding respondents not currently in the survey but making the specified product according to their census of manufactures report.
- Use of different reporting periods (calendar year vs. fiscal year).
- Use of estimates in reporting figures on the commodity survey, whereas census of manufactures figures generally represent more exact shipment figures.

See tables 6A-1 to 6A-7 for more detailed product data.

<sup>5</sup>Dual-fuel engines shipped in 1958 were included with diesel and semidiesel (except automotive).

<sup>6</sup>Includes dual-fuel engines.



TABLE 6A-2. Gasoline Engines, by Horsepower Rating and Piston Displacement:  
1963 and 1958

Size group	Total number of engines <sup>1</sup>	Total shipments and interplant transfers		Shipments to other companies		Interplant transfers		Number produced and incorporated into products of the same establishment <sup>2</sup>	
		Number	Value f.o.b. plant (\$1,000)	Number	Value f.o.b. plant (\$1,000)	Number	Value f.o.b. plant (\$1,000)		
1963									
HORSEPOWER RATING, TOTAL.....	6,861,638	6,284,999	267,430	6,077,809	235,207	207,190	32,223	576,639	
Under 3.....	3,023,571	3,003,302	60,355	5,973,552	177,469	140,537	4,258	20,269	
3.0-4.9.....	2,895,182	2,495,853	60,262					399,329	
5.0-5.9.....	198,157	156,951	9,193					41,206	
6.0-6.9.....	423,612	157,206	8,735					43,411	
7.0-7.9.....		107,363	9,161						
8.0-10.9.....		115,632	11,724						
11-20.....	34,613	27,868	6,367					6,745	
21-25.....	69,026	20,587	7,029						-
26-30.....		14,759	5,045						19,112
31-35.....		14,568	3,856						
36-40.....	53,668	35,613	10,202	32,425	9,120	3,188	1,082		18,055
41-50.....	35,180	24,877	9,041	7,084	2,467	17,793	6,574		10,303
51-60.....	54,006	13,456	4,823	30,362	11,670	10,471	3,324		13,173
61-70.....		27,377	10,171						
71-80.....		19,201	9,116						
81-90.....	20,537	2,338	1,119	14,580	13,197	10,481	3,333		3,700
91-100.....	54,086	22,723	15,411						
101-150.....		13,664	9,914					13,583	
151-200.....		11,661	15,906						
201 and over.....									
PISTON DISPLACEMENT (cubic inches), TOTAL.....	6,861,638	6,284,999	267,430	6,077,809	235,207	207,190	32,223	576,639	
Under 6.....	5,898,169	338,234	10,340	5,951,898	170,752	143,145	4,018	468,946	
6.0-10.9.....		5,090,989	109,716						
11-15.....		321,485	13,023						
16-30.....	610,230	259,879	20,191					12,486	
31-50.....	66,830	28,612	6,767						
51-75.....		25,732	5,957						
76-125.....		30,112	8,776						
126-150.....	44,766	27,988	8,017	22,280	6,059	5,708	1,958	14,654	
151-175.....	49,963	43,592	12,866					21,975	
176-200.....	89,974	8,506	2,814					14,850	
201-225.....		23,026	10,471	6,516	3,113	16,510	7,358		
226-250.....		28,726	12,532	21,837	9,333	6,889	3,199		
251-300.....	36,296	28,495	15,525	8,068	5,091	20,427	10,434	7,570	
301-350.....		12,198	8,451	9,522	7,382	2,676	1,069		
351-500.....		14,033	13,186	14,872	20,483	2,553	1,501		
501 and over.....		3,392	8,798						
1958									
HORSEPOWER RATING, TOTAL.....	5,755,879	5,206,921	230,069	5,124,994	205,461	81,927	24,608	548,958	
Under 3.....	3,679,168	3,475,358	74,199	4,818,669	114,071	21,258	595	203,810	
3.0-3.9.....	1,178,132	1,125,534	27,753					52,598	
4.0-6.9.....	378,391	239,035	12,714					139,356	
7.0-10.9.....	126,746	117,019	10,185					9,727	
11-15.....	43,201	27,350	5,841					15,851	
16-30.....	58,803	33,878	10,511					24,925	
31-45.....	93,483	54,701	15,793					38,782	
46-60.....	97,599	39,437	11,294					58,162	
61-70.....	22,983	20,028	9,184					2,955	
71-80.....	77,345	16,807	8,031					2,792	
81-90.....		3,935	1,927						
91-100.....		17,414	6,457						
101-150.....	28	20,960	13,235	56,587	43,918	17,966	8,061	44,238	
151-200.....		11,851	15,520	311,626	33,939	6,040	1,457		
201-300.....		3,586	6,809						
301 and over.....		28	616	28	616	-	-	-	
PISTON DISPLACEMENT (cubic inches), TOTAL.....	5,755,879	5,206,921	230,069	5,124,994	205,461	81,927	24,608	548,958	
Under 11.....	5,081,500	4,703,846	106,127	4,684,515	105,595	19,331	532	377,654	
11-30.....	269,076	237,928	16,060	311,626	33,939	6,040	1,457	31,148	
31-50.....	123,976	15,209	2,586					44,238	
51-75.....		31,477	6,755						
76-100.....		5,391	1,662						
101-125.....		27,661	8,333						

See footnotes at end of table.

**TABLE 6A-2. Gasoline Engines, by Horsepower Rating and Piston Displacement: 1963 and 1958—Continued**

Size group	Total number of engines <sup>1</sup>	Total shipments and interplant transfers		Shipments to other companies		Interplant transfers		Number produced and incorporated into products of the same establishment <sup>2</sup>
		Number	Value f.o.b. plant (\$1,000)	Number	Value f.o.b. plant (\$1,000)	Number	Value f.o.b. plant (\$1,000)	
	1958—Continued							
PISTON DISPLACEMENT (cubic inches), TOTAL--Continued								
126-150.....	76,661	50,443	14,258	31,251	8,136	19,192	6,122	26,218
151-225.....	141,851	57,389	18,281	95,411	51,283	37,364	16,497	47,071
226-250.....		37,391	17,490					
251-300.....	62,776	19,045	8,720	2,152	5,833	-	-	22,629
301-350.....		10,347	8,067					
351-500.....	39	7,368	13,536	39	675	-	-	-
501-600.....		1,235	1,686					
601-2,000.....		2,152	5,833					
2,001 and over.....		39	675					

Note: Includes gas-gasoline engines; excludes outboard, automotive, and aircraft engines.

Source: Current Industrial Reports Series MB5L, Internal Combustion Engines.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>Represents total number of engines shipped and produced and incorporated into products of the same company.

<sup>2</sup>Represents engines produced and incorporated (in the same plant) into products such as construction machinery; farm machinery; tractors; engine-generator sets; and other products.

**TABLE 6A-3. Diesel Engines (Except Automotive), by Horsepower Rating and Piston Displacement: 1963 and 1958**

Size group	Total number of engines <sup>1</sup>	Total shipments and interplant transfers		Shipments to other companies		Interplant transfers		Number produced and incorporated into products of the same establishment <sup>2</sup>																					
		Number	Value f.o.b. plant (\$1,000)	Number	Value f.o.b. plant (\$1,000)	Number	Value f.o.b. plant (\$1,000)																						
1963																													
HORSEPOWER RATING, TOTAL.....	<sup>3</sup> 179,344	<sup>3</sup> 108,550	<sup>3</sup> 292,271	52,656	172,674	55,894	119,597	<sup>3</sup> 70,794																					
Under 11.....	8,797	{	585	1,546	585	1,546	{	-	-	{	3,526																		
11-20.....												14,115	7,296	5,424	3,100	2,853	8,882	4,543	{	6,819									
21-30.....																					42,087	25,793	23,137	8,536	7,822	17,257	15,315	{	16,294
31-40.....																													
41-50.....	15,562	23,965	47,366	10,390	21,399	13,575	25,967	{	2,792																				
51-70.....										8,945	7,036	21,124	5,379	16,455	1,657	4,669	{	1,972											
71-100.....																			305	12,770	51,539	9,014	35,978	3,756	15,561	{	63		
101-150.....																												975	4,194
151-200.....	956	1,692	14,796	2,764	52,073	1,114	32,070	{	781																				
201-300.....										759	8,300	2,506	20,455	1,688	9,635	{	2,792												
301-400.....																		328	4,214	2,506	20,455	1,688	9,635	{	1,972				
401-500.....																										242	3,735	2,506	20,455
501-600.....	445	24,801	2,506	20,455	1,688	9,635	{	293																					
601-700.....									237	13,027	2,506	20,455	1,688	9,635	{	781													
701-900.....																	175	15,270	2,506	20,455	1,688	9,635	{	2,792					
901-1,000.....																									175	15,270	2,506	20,455	1,688
1,001-1,500.....	175	15,270	2,506	20,455	1,688	9,635	{	63																					
1,501 and over.....									175	15,270	2,506	20,455	1,688	9,635	{	293													
PISTON DISPLACEMENT (cubic inches), TOTAL.....																	<sup>3</sup> 179,344	<sup>3</sup> 108,550	<sup>3</sup> 292,271	52,656	172,674	55,894	119,597	<sup>3</sup> 70,794					
Under 101.....																	12,326	{	520	1,418	520	1,418	-	-	{	4,413			
101-150.....	37,459	7,393	6,029	10,053	10,643	10,596	5,044	{																			14,751		
151-200.....									13,256	9,658	10,053	10,643	10,596	5,044	{	14,751													
201-250.....																												9,452	13,364

See footnotes at end of table.



TABLE 6A-3. Diesel Engines (Except Automotive), by Horsepower Rating and Piston Displacement: 1963 and 1958—Continued

Size group	Total number of engines <sup>1</sup>	Total shipments and interplant transfers		Shipments to other companies		Interplant transfers		Number produced and incorporated into products of the same establishment <sup>2</sup>					
		Number	Value f.o.b. plant (\$1,000)	Number	Value f.o.b. plant (\$1,000)	Number	Value f.o.b. plant (\$1,000)						
	1963—Continued												
PISTON DISPLACEMENT (cubic inches), TOTAL—Continued													
251-300.....	129,559	{	27,306	33,268	9,929	15,522	17,377	17,746	{				
301-500.....			25,509	52,613	11,613	27,801	13,896	24,812					
501-600.....			10,467	35,885	4,443	18,603	6,024	17,282					
601-800.....			4,433	17,337	6,943	32,766	4,102	20,644					
801-1,000.....			6,612	36,073									
1,001-1,500.....			1,854	16,831	2,626	55,777	976	30,849					
1,501-2,000.....			659	7,693									
2,001-3,000.....			251	5,030									
3,001-5,000.....			250	13,659									
5,001-10,000.....			215	9,262									
10,001-25,000.....			{	373						{	34,151	{	51,630
25,001 and over.....													
			1958										
HORSEPOWER RATING, TOTAL.....	131,736		<sup>3</sup> 76,857	<sup>3</sup> 236,025	44,291	165,892	32,566	70,133	54,879				
Under 20.....	{	19,914	{	2,311	2,245	{	12,690	12,882	17,904	15,905	{	13,975	
21-30.....				72	109								
31-40.....				2,485	1,797								
41-50.....				1,071	1,395								
51-70.....	{	47,907	{	24,655	23,241	{	11,845	17,253	5,666	12,438	{	23,252	
71-100.....				27,117	17,511								29,691
101-150.....	{	36,798	{	10,850	27,363	{	12,318	37,406	6,090	18,396	{	8,046	
151-200.....				7,558	28,439								
201-300.....				7,499	34,579								
301-400.....				746	5,692								
401-500.....				882	25,479								
501-600.....				246	4,130								
601-700.....				173	7,976								
701-800.....				178	6,793								
801-900.....				65	1,657								
901-1,000.....				7	550								
1,001-1,500.....				243	10,439								
1,501 and over.....				305	24,450								
PISTON DISPLACEMENT (cubic inches), TOTAL.....	131,736		<sup>3</sup> 76,857	<sup>2</sup> 236,025	44,291	165,892	32,566	70,133	54,879				
Under 101.....	{	61,020	{	2,261	2,151	{	2,261	2,151	-	-	{	19,590	
101-150.....				4,221	5,165								
151-200.....				3,070	2,523								
201-250.....				10,212	10,142								
251-300.....	{	26,296	{	21,666	26,335	{	3,118	4,820	4,098	7,249	{	19,080	
301-400.....				7,216	12,069								
401-500.....	{	21,951	{	7,358	21,877	{	7,419	26,246	5,711	22,570	{	8,821	
501-600.....				5,772	26,939								
601-800.....	{	22,469	{	6,902	24,305	{	9,602	91,165	5,388	24,601	{	7,388	
801-1,000.....				5,135	21,809								
1,001-1,500.....				1,785	18,948								
1,501-2,000.....				318	13,057								
2,001-3,000.....				376	7,822								
3,001-5,000.....				211	13,460								
5,001-10,000.....				263	16,365								
10,001-15,000.....				45	7,013								
15,001-25,000.....				24	1,978								
25,000 and over.....				22	4,067								

Source: Current Industrial Reports Series M35L, Internal Combustion Engines.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>Represents total number of engines shipped and produced and incorporated into products of the same company.

<sup>2</sup>See footnote 2, table 6A-1.

<sup>3</sup>Includes for 1963, 71 dual-fuel engines of which 28 valued at \$3.1 million were shipped. In 1958 a total of 61 dual-fuel engines valued at \$10.0 million were shipped.

**TABLE 6A-4. Gas Engines (Except Automotive), by Horsepower Rating and Piston Displacement: 1963 and 1958**

Size group	Total number of engines <sup>1</sup>	Shipments and interplant transfers <sup>2</sup>		Number of engines produced and incorporated into products at the same establishment <sup>3</sup>
		Number	Value f.o.b. plant (\$1,000)	
		1963		
HORSEPOWER RATING, TOTAL.....	14,492	6,253	22,318	8,239
Under 21.....	1,115	}	1,685	221
21-50.....	791			
51-100.....	10,923	{	2,389	7,694
101-150.....			840	
151-500.....	1,215	{	1,082	133
501 and over.....	448		257	
PISTON DISPLACEMENT (cubic inches), TOTAL.....	14,492	6,253	22,318	8,239
Under 251.....	13,150	{	1,901	7,920
251-500.....			2,324	
501-1,000.....	1,342	{	1,005	319
1,001-2,000.....			329	
2,001 and over.....			694	
		1958		
HORSEPOWER RATING, TOTAL.....	14,929	5,517	31,458	9,412
Under 51.....	4,663	}	2,209	2,454
51-150.....			2,099	
151-200.....	10,266	{	534	6,958
201-500.....			386	
501 and over.....			289	
PISTON DISPLACEMENT (cubic inches), TOTAL.....	14,929	5,517	31,458	9,412
Under 251.....	4,317	{	1,811	2,506
251-500.....			2,002	
501-2,000.....	10,612	{	1,083	6,906
2,001 and over.....			621	

Source: Current Industrial Reports Series M35L, Internal Combustion Engines.

<sup>1</sup>Represents total number of engines shipped and produced and incorporated into products of the same company.

<sup>2</sup>Shipments to other companies and interplant transfers are combined to avoid disclosing figures for individual companies.

<sup>3</sup>See footnote 2, table 6A-1.



**TABLE 6A-5. Internal Combustion Engines (Except Outboard, Automotive, and Aircraft), by Engine Operating Data and by Type of Engine: 1963 and 1958**

Engine operating data	Number of engines by type <sup>1</sup>					
	1963			1958		
	Gasoline	Diesel	Gas	Gasoline	Diesel	Gas
TOTAL.....	6,861,638	179,344	14,492	5,755,879	131,736	14,929
Revolutions per minute:						
750 and under.....	} 26,106	{ 214 11,622 3167,508 -	{ 2,471 5,602 6,419 -	} 233,960	{ 517 36,075 395,144 -	{ 2,159 8,208 4,562 -
751-1,500.....						
1,501-2,999.....						
3,000-3,999.....						
4,000 and over.....	470,394	-	-	343,673	-	-
Method of cooling:						
Air.....	6,595,440	} 4179,344	{ -	} 5,415,619	{ 4131,736	{ -
Liquid.....	266,198					
Number of cycles:						
2.....	835,655	} 5179,344	{ 614,492	{ 954,972	{ 5131,736	{ 1,212
4.....	6,025,983					
				4,800,907		13,717

Source: Current Industrial Reports Series M35L, Internal Combustion Engines.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>Represents total number of engines shipped and produced and incorporated into products of the same company, including interplant transfers.

<sup>2</sup>Over 95 percent of these engines operated at between 751-1,500 r.p.m.

<sup>3</sup>Over 95 percent of these engines operated at between 1,501 and 2,999 r.p.m.

<sup>4</sup>Over 95 percent of these engines were liquid cooled.

<sup>5</sup>Over 80 percent of these engines were 4-cycle engines.

<sup>6</sup>Over 90 percent of these engines were 4-cycle engines.

**TABLE 6A-6. Internal Combustion Engines (Except Outboard, Automotive, and Aircraft), by Number of Cylinders and by Type of Engine: 1963 and 1958**

Number of cylinders per engine	Number of engines <sup>1</sup>	
	1963	1958
Gasoline, total.....	6,861,638	5,755,879
1.....	6,519,127	5,351,209
2 and 3.....	45,895	74,593
4.....	186,388	217,502
6.....	75,564	101,649
8 and 12.....	34,664	10,926
Diesel, total.....	179,344	131,736
1.....	780	} 24,486
2 and 3.....	11,029	
4.....	68,857	48,504
5, 6, and 7.....	90,126	55,038
8 and 9.....	4,265	791
10 and over.....	4,287	2,917
Gas, total.....	14,492	14,929
1.....	2,406	} 5,716
2 and 3.....	271	
4.....	3,042	6,101
5, 6, and 7.....	8,244	2,076
8.....	215	686
10.....	75	121
12 and over.....	239	229

Source: Current Industrial Reports Series M35L, Internal Combustion Engines.

<sup>1</sup>Represents total number of engines shipped and produced and incorporated into products of the same company, including interplant transfers.

**TABLE 6A-7. Internal Combustion Engines (Except Outboard, Automotive, and Aircraft), by Type of Engine and Service Designed for: 1963**

Type of engine and service designed for	Total number of engines <sup>1</sup>	Shipments to other companies		Number shipped as interplant transfers or produced and incorporated into products at the same establishment <sup>3</sup>
		Number	Value f.o.b. plant <sup>2</sup> (\$1,000)	
TOTAL.....	7,055,474	6,136,718	430,199	918,756
Gasoline, total.....	6,861,638	6,077,809	235,207	783,829
Marine, except outboard.....	28,005	13,509	11,378	14,496
Construction (loaders; tractors, primarily tracklaying; graders; scrapers, etc.) logging, mining and oil field.....	51,136	35,934	5,755	15,202
Generator sets.....	43,542	18,981	4,375	24,561
Lawn mowers, tillers, snow blowers, edge trimmers, and garden tractors less than 9 hp.....	5,084,262	4,843,955	106,397	613,570
Chain saws.....	373,263			
Farm machinery (agricultural tractors, primarily wheel; combines; etc.).....	5,430,362	336,454	26,234	93,908
Tractors not specified by end use.....				
General industrial (cotton gins, sawmills, pumps and compressors, etc.) and other types including government, research, and not specified.....	6,851,068	828,976	81,068	22,092
Diesel, total.....	179,344	52,656	172,674	126,688
Marine, except outboard.....	36,861	3,906	28,210	31,927
Construction (loaders; tractors, primarily tracklaying; graders; scrapers, etc.) logging, mining and oil field.....		1,028	2,375	
Generator sets.....	8,519	5,508	20,354	3,011
Railroad, motive power type.....	1,419	42,214	121,735	91,750
Farm machinery (agricultural tractors, primarily wheel; combines; etc.).....	82,028			
Tractors not specified by end use.....	50,517	76,253	722,318	78,239
General industrial (cotton gins, sawmills, pumps and compressors, etc.) and other types including government, research and not specified.....				
Gas, total.....	14,492	76,253	722,318	78,239
Construction (loaders; tractors, primarily tracklaying; graders; scraper, etc.) logging, mining and oil field.....	5,142	3,589	9,254	257
General sets.....		1,296	4,025	
Farm machinery (agricultural tractors, primarily wheel; combines; etc.).....	8,788	1,368	9,039	7,982
General industrial (cotton gins, sawmills, pumps and compressors, etc.).....	562			

Source: Current Industrial Reports Series M35L, Internal Combustion Engines.

<sup>1</sup>Represents total number of engines shipped or produced and incorporated into products at the same establishment.

<sup>2</sup>These values are limited to engines shipped to other companies and therefore differ from values shown in table 1 which also include the values for engines shipped as interplant transfers.

<sup>3</sup>Includes number of engines transferred to other plants of the same company and the number of engines produced and incorporated (in the same plant) into products such as construction machinery, farm machinery, tractors, engine generator sets, and other products.

<sup>4</sup>It is likely that these figures are understated since shipments of gasoline-driven generator sets totaled 53,296 in 1963 and 51,383 in 1962. (See Current Industrial Reports Series M36H, Motors and Generators.) Some gasoline engines for eventual use in generator sets have apparently been reported as utilities, marine, government, or research.

<sup>5</sup>Over 95 percent of these engines produced were reported for use on farm machinery (agricultural tractors, combines, etc.).

<sup>6</sup>Over 90 percent of these engines were reported for general industrial use.

<sup>7</sup>Data for a few engines shipped as interplant transfers have been included with shipments to other companies to avoid disclosing figures for individual companies.



TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958

1963 Census product code	Type of farm equipment	1963							
		Number of com- panies	Number produced	Manufacturers' shipments					
				Total		Domestic		For export	
				Number	Value (\$1,000)	Number	Value (\$1,000)	Number	Value (\$1,000)
35222 --	WHEEL TRACTORS AND PARTS AND ATTACHMENTS, TOTAL	(NA)	(X)	(X)	770,676	(X)	665,234	(X)	105,442
(35222 10)	Wheel-type (except garden), total <sup>1</sup> .....	(NA)	203,449	204,970	603,579	177,239	517,876	27,731	85,703
35222 03,04	9-34 belt hp.....	(NA)	26,884	27,189	49,008	23,178	41,269	4,011	7,739
35222 05	35-39 belt hp.....	(NA)	23,985	23,385	47,640	35,400	75,309	3,727	7,634
35222 06	40-44 belt hp.....	(NA)	15,705	15,742	35,303				
35222 07	45-49 belt hp.....	(NA)	30,128	30,733	76,638	25,736	63,994	4,997	12,644
35222 08	50-54 belt hp.....	(NA)	12,039	12,160	33,997	11,432	32,035	728	1,962
35222 09	55-59 belt hp.....	(NA)	12,191	12,393	41,706	37,700	124,635	6,722	23,434
35222 11	60-69 belt hp.....	(NA)	31,122	32,029	106,363				
35222 12,13	70-89 belt hp.....	(NA)	31,887	32,117	122,786	43,793	180,634	7,546	32,290
35222 14	90 belt hp. and over.....	(NA)	19,508	19,222	90,138				
(35222 20)	Attachments and parts, total <sup>2</sup> .....	(NA)	(X)	(X)	167,097	(X)	147,358	(X)	19,739
35222 21	Attachments <sup>2</sup> .....	(NA)	(X)	(X)	42,399	(X)	36,694	(X)	5,705
35222 23	Parts <sup>2</sup> .....	(NA)	(X)	(X)	124,698	(X)	110,664	(X)	14,034
(35223 00)	PLANTING, SEEDING, AND FERTILIZING MACHINERY, TOTAL.....	151	(X)	(X)	111,912	(X)	104,389	(X)	7,523
	Corn planters:								
	Drawn:								
35223 11	2-row.....	10	22,109	23,914	8,851	23,288	8,620	626	231
35223 13	4-row.....								
35223 15	6-row and larger.....								
35223 16	Mounted.....	4	6,051	5,925	589	5,925	589	(D)	(D)
	Corn and cotton planters (mounted):								
35223 25	1-row and 2-row.....	13	12,140	13,136	1,476	11,938	1,345	1,198	131
35223 26	4-row.....	7	3,186	3,426	1,515	3,277	1,468	149	47
35223 27	6-row and larger.....								
35223 33	Lister planting attachment units.....	4	2,536	2,624	256	2,624	256	(D)	(D)
35223 35	Potato planters, drawn or mounted.....	(X)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
35223 41	Transplanters, drawn or mounted.....	10	13,926	13,467	2,337	12,856	2,204	611	133
	Grain drills, including legume planters:								
35223 43	Fertilizer.....	10	5,126	5,610	2,971	5,222	2,775	388	196
	Plain:								
35223 45	Press.....	(X)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
35223 46	Other.....								
35223 47	Fertilizer attachments for plain drills.....	(X)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
35223 49	Broadcast seeders (end-gate, mounted and drawn)....	9	20,395	20,158	897	20,158	897	(D)	(D)
	Fertilizer distributors, drawn or mounted:								
	Dry:								
35223 50	Gravity distribution.....	33	30,292	29,943	5,387	28,715	5,114	1,228	273
35223 51	Centrifugal distribution.....	15	7,138	6,720	3,842	6,578	3,814	142	28
35223 52	Liquid.....	8	4,926	4,790	3,425	4,790	3,425	(D)	(D)
35223 54	Anhydrous ammonia.....	(X)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Manure spreaders (ASAE rating):								
	Power take-off (single beater):								
35223 57	115 bushels and under.....	10	7,175	6,727	2,999	6,727	2,999	(D)	(D)
35223 58	Over 115 bushels.....	13	17,762	17,152	8,905	15,118	7,847	2,034	1,058
	Power take-off (multiple beater):								
35223 61	115 bushels and under.....	5	(D)	908	484	908	484	(D)	(D)
35223 62	Over 115 bushels.....	10	11,084	9,594	5,721	8,637	5,108	957	613
35223 63	Ground drive.....	7	8,181	7,640	2,813	6,628	2,445	1,012	368
	Loaders (farm type), manure and general utility (except beet and sugar cane loaders):								
35223 71	Front mounted.....	27	41,241	39,288	15,230	34,761	13,850	4,527	1,380
35223 73	Rear mounted.....								
35223 75	Row crop unit planters for attaching to tool bars..	6	30,903	25,183	2,541	23,149	2,328	2,034	213
35223 81	Other planting, seeding, and fertilizing machinery.	37	(X)	(X)	3,822	(X)	3,740	(X)	82
35223 83	Attachments.....	26	(X)	(X)	12,594	(X)	11,944	(X)	650
35223 85	Parts.....	44	(X)	(X)	14,298	(X)	13,618	(X)	680

See footnotes at end of table.

TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958—Continued

1958 Census product code	Type of farm equipment	1958							
		Number of com- panies	Number produced	Manufacturers' shipments					
				Total		Domestic		For export	
				Number	Value (\$1,000)	Number	Value (\$1,000)	Number	Value (\$1,000)
	WHEEL TRACTORS AND PARTS AND ATTACHMENTS, TOTAL	(NA)	(X)	(X)	657,721	(X)	596,371	(X)	61,350
(35222 10)	Wheel-type (except garden), total <sup>1</sup> .....	(NA)	241,269	239,161	494,131	215,961	443,048	23,200	51,083
	9-34 belt hp.....	(NA)	50,894	47,675	70,521	43,652	64,295	4,023	6,226
	35-39 belt hp.....	(NA)	44,075	45,377	80,391	41,270	74,381	4,107	6,010
	40-49 belt hp.....	(NA)	54,502	50,822	103,201	46,913	95,124	3,909	8,077
	50-54 belt hp.....	(NA)	69,221	41,382	85,442	37,455	77,186	3,927	8,256
	55-59 belt hp.....	(NA)		30,998	89,165	28,815	82,827	2,183	6,338
	60 belt hp. and over.....	(NA)	22,587	22,907	65,411	17,856	49,235	5,051	16,176
(35222 20)	Attachments and parts, total.....	(NA)	(X)	(X)	163,590	(X)	153,323	(X)	10,267
	Attachments.....	(NA)	(X)	(X)	53,814	(X)	50,039	(X)	3,775
	Parts.....	(NA)	(X)	(X)	109,776	(X)	103,284	(X)	6,492
(35223 00)	PLANTING, SEEDING, AND FERTILIZING MACHINERY, TOTAL.....	(X)	(X)	(X)	101,197	(X)	96,560	(X)	4,637
	Corn planters:								
	Drawn:								
35223 11	1-row and 2-row.....	8	15,649	16,647	1,227	16,501	1,201	146	26
35223 13	3-row and larger.....	7	31,512	29,531	10,786	29,324	10,709	207	77
	Mounted:								
35223 16	1-row and 2-row.....	9	11,803	14,623	1,467	13,869	1,397	754	70
35223 18	3-row and larger.....	5	592	719	217	719	217	(D)	(D)
	Corn and cotton planters:								
35223 21	Drawn.....	9	3,093	3,127	269	3,127	269	(D)	(D)
	Mounted:								
35223 25	1-row and 2-row.....	11	19,399	18,254	1,544	17,365	1,479	889	65
35223 27	3-row and larger.....	7	2,474	2,693	862	2,378	773	315	89
35223 33	Lister planting attachment units.....	4	(D)	2,406	306	2,406	306	(D)	(D)
35223 35	Potato planters, drawn or mounted.....	3	1,030	950	534	950	534	(D)	(D)
35223 41	Transplanters, drawn or mounted.....	15	7,477	7,598	1,463	7,598	1,463	(D)	(D)
	Grain drills, including legume planters:								
35223 43	Fertilizer.....	10	13,675	12,826	6,026	11,360	5,183	1,466	843
35223 45	Plain.....	10	10,817	10,310	3,733	9,871	3,546	439	187
	Broadcast seeders:								
35223 47	Hand-type.....	15	(NA)	(NA)	983	(NA)	983	(D)	(D)
35223 49	End-gate, mounted, and drawn.....								
	Fertilizer distributors, drawn or mounted:								
35223 50	Dry.....	40	34,484	28,357	3,804	26,606	3,581	1,751	223
35223 52	Liquid.....	9	1,077	1,024	438	1,024	438	(D)	(D)
35223 54	Anhydrous ammonia.....	8	2,260	2,239	1,196	2,239	1,196	(D)	(D)
35223 55	Lime spreaders.....	8	3,026	3,654	794	3,654	792	(D)	(D)
	Manure spreaders:								
	2-wheel:								
35223 61	Power drive.....	16	23,864	24,344	10,611	23,622	10,324	722	287
35223 63	Ground drive.....	9	32,781	35,156	12,434	32,017	11,338	3,139	1,096
35223 65	4-wheel.....	4	(D)	646	207	646	207	(D)	(D)
	Loaders, manure and general utility (except hay, beet, and sugar cane loaders):								
35223 71	Front mounted.....	32	38,187	38,205	10,803	35,619	10,050	2,586	753
35223 73	Rear mounted.....	6	2,447	2,717	922	2,717	922	(D)	(D)
35223 81	Other planting, seeding, and fertilizing machinery.	40	(X)	(X)	4,901	(X)	4,750	(X)	151
35223 83	Attachments.....	31	(X)	(X)	10,133	(X)	9,758	(X)	375
35223 85	Parts.....	57	(X)	(X)	15,539	(X)	15,144	(X)	395

See footnotes at end of table.



TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958—Continued

1963 Census product code	Type of farm equipment	1963							
		Number of com- panies	Number produced	Manufacturers' shipments					
				Total		Domestic		For export	
				Number	Value (\$1,000)	Number	Value (\$1,000)	Number	Value (\$1,000)
(35224 10)	HARROWS, ROLLERS, PULVERIZERS, STALK CUTTERS, AND SIMILAR EQUIPMENT, TOTAL.....	175	(X)	(X)	114,791	(X)	108,861	(X)	5,930
	Harrows:								
35224 01	Spike-tooth harrow sections.....	25	115,475	113,140	3,380	113,140	3,380	(D)	(D)
35224 02	Spring-tooth harrow sections.....	20	70,500	62,523	2,878	59,826	2,758	2,697	120
35224 03	Tine-tooth harrow sections.....	10	16,188	15,699	524	14,613	486	1,086	38
	Disc harrows:								
	Single (2-gang):								
35224 04	Drawn.....	14	7,811	7,833	1,215	7,719	1,188	114	27
35224 05	Mounted.....	9	2,710	2,614	873	2,526	861	88	12
	Tandem (4-gang):								
	Drawn:								
	Wheel type:								
35224 06	Under 15 ft. width of cut.....	24	53,735	53,148	28,052	51,097	27,043	2,051	1,009
35224 07	15 ft. width of cut and over.....	9	4,876	4,920	4,237	4,729	4,103	191	134
35224 08	Other.....	11	8,548	9,084	2,307	8,292	2,054	792	253
35224 09	Mounted.....	20	11,410	11,508	2,480	11,137	2,395	371	85
	Offset:								
	Drawn:								
	Wheel type.....	18	5,315	5,307	4,253	4,598	3,873	709	380
35224 11	Other.....	11	3,331	3,529	5,474	2,601	4,177	928	1,297
35224 12	Mounted.....	11	2,631	2,440	742	2,019	607	421	135
35224 13	Brush and bogs.....	6	482	499	140	499	140	(D)	(D)
35224 14	Other harrows.....	10	3,221	3,524	583	3,524	583	(D)	(D)
35224 15	Soil pulverizers, packers, and land rollers.....	31	11,631	11,520	4,119	11,285	4,017	235	102
	Stalk shredders and cutters or rotary mowers (power take-off):								
35224 17	Flail-type (without spout).....	14	7,255	7,277	3,122	7,277	3,122	(D)	(D)
	Horizontal-blade type:								
35224 18	66 inches cutting width and under.....	36	54,132	52,824	14,539	50,629	14,049	2,195	490
35224 19	Over 66 inches up to 100 inches cutting width..	17	11,286	11,355	4,463	11,043	4,302	312	161
35224 20	Over 100 inches cutting width.....	11	1,742	1,718	1,727	1,718	1,727	(D)	(D)
	Blade terracers or scrapers (farm size):								
35224 22	Wheel type.....	11	2,531	2,610	1,800	2,610	1,800	(D)	(D)
35224 23	Other.....	26	47,701	46,777	3,733	45,407	3,607	1,370	126
35224 24	Land levelers.....	24	7,553	7,500	3,066	6,632	2,481	868	585
35224 25	Wheel-type folding drawbars for harrow and rotary hoe sections.....	11	15,691	15,759	2,042	15,759	2,042	(D)	(D)
35224 26	Other rollers, pulverizers, and similar equipment..	21	4,204	4,201	2,716	3,960	2,537	241	179
35224 27	Attachments.....	24	(X)	(X)	3,098	(X)	2,832	(X)	266
35224 28	Parts.....	67	(X)	(X)	13,228	(X)	12,697	(X)	531
(35224 20)	PLOWS AND LISTERS, TOTAL.....	93	(X)	(X)	76,840	(X)	70,852	(X)	5,988
	Moldboard plows:								
	Tractor-drawn 1-way:								
35224 31	1-bottom and 2-bottom.....	8	2,704	2,773	143	2,773	143	(D)	(D)
35224 32	3-bottom.....	6	5,259	4,855	1,935	4,680	1,858	175	77
35224 33	4-bottom.....	5	6,410	6,672	3,494	6,283	3,295	389	199
35224 34	5-bottom.....	6	2,150	2,541	1,772	2,225	1,575	316	197
35224 35	6-bottom and larger.....	6	441	674	513	563	453	111	60
	Tractor-drawn 2-way:								
35224 36	1-furrow and 2-furrow.....	5	130	145	356	145	356	(D)	(D)
35224 37	3-furrow and larger.....								
	Mounted, 1-way:								
35224 38	1-bottom and 2-bottom.....	7	16,118	16,055	2,130	15,610	2,064	445	66
	3-bottom:								
35224 39	Mounted.....	6	18,652	19,947	4,788	18,604	4,482	1,343	306
35224 41	Semimounted.....								

See footnotes at end of table.

TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958—Continued

1958 Census product code	Type of farm equipment	1958							
		Number of com- panies	Number produced	Manufacturers' shipments					
				Total		Domestic		For export	
				Number	Value (\$1,000)	Number	Value (\$1,000)	Number	Value (\$1,000)
(35224 10)	HARROWS, ROLLERS, PULVERIZERS, AND STALK CUTTERS, TOTAL <sup>3</sup> .....	(X)	(X)	(X)	92,054	(X)	85,074	(X)	6,980
	Harrows:								
	Spike-tooth harrow sections.....	34	136,521	140,410	3,616	137,647	3,548	2,763	68
	Spring-tooth harrow sections.....	22	74,211	75,111	2,828	72,882	2,753	2,229	75
	Disc harrows:								
	Single (2 gang):								
	Drawn.....	17	2,476	3,148	680	2,731	501	417	179
	Mounted.....	13	3,559	3,733	618	3,539	579	194	39
	Tandem (4 gang):								
	Drawn:								
	Wheel type.....	24	57,018	56,897	24,542	55,132	23,533	1,765	1,009
	Other.....	19	10,669	10,718	2,832	9,400	2,404	1,318	428
	Mounted.....	21	21,938	21,465	4,004	20,650	3,816	815	188
	Offset:								
	Drawn:								
	Wheel type.....	16	5,823	5,789	3,169	5,204	2,847	585	322
	Other type.....	16	6,920	7,001	4,973	4,501	3,266	2,500	1,707
	Mounted.....	17	3,186	3,485	851	2,130	472	1,355	379
	Brush and bog.....	9	1,055	1,212	229	1,184	224	28	5
	Other harrows.....	13	3,473	3,550	591	3,550	591	(D)	(D)
	Soil pulverizers, packers, and land rollers.....	35	13,123	12,516	2,637	12,351	2,557	165	80
	Stalk cutters (ground driven).....	12	874	951	285	951	285	(D)	(D)
	Stalk shredders, and stalk cutters, or rotary mowers (power take-off driven).....	39	53,957	52,259	16,145	50,649	15,568	1,610	577
	Blade terracers or scrapers (farm size):								
	Wheel type.....	16	3,698	3,703	2,155	3,576	1,990	127	165
	Other.....	19	33,775	33,684	2,892	32,656	2,778	1,028	114
	Land levelers.....	22	5,616	5,456	2,502	4,839	2,188	617	314
	Other rollers, pulverizers, and similar equipment..	22	4,372	4,479	949	4,233	782	246	167
	Attachments.....	41	(X)	(X)	4,737	(X)	4,471	(X)	266
	Parts.....	77	(X)	(X)	10,819	(X)	9,921	(X)	898
(35224 20)	PLOWS AND LISTERS, TOTAL <sup>3</sup> .....	(X)	(X)	(X)	73,908	(X)	68,607	(X)	5,301
	Moldboard plows:								
	Horse drawn.....	9	16,633	17,008	235	1,505	27	15,503	208
	Tractor drawn, 1-way:								
	1-bottom.....	6	2,047	2,163	55	2,163	55	-	-
	2-bottom.....	8	5,557	4,894	1,044	4,746	1,002	148	42
	3-bottom.....	6	20,559	20,396	6,301	19,605	6,077	791	224
	4-bottom.....	4	14,556	14,521	6,262	14,142	6,093	379	169
	5-bottom and larger.....	4	3,567	3,449	2,136	3,309	2,058	140	78
	Tractor drawn, 2-way:								
	2-bottom, 1 furrow.....	-	-	-	-	-	-	-	-
	4-bottom, 2 furrow.....	6	1,412	1,290	539	1,290	539	(D)	(D)
	Mounted, 1-way:								
	1-bottom.....	6	2,957	3,047	182	3,047	182	(D)	(D)
	2-bottom.....	6	19,896	22,051	2,840	20,987	2,686	1,064	154
	3-bottom.....	6	26,048	31,338	6,861	30,708	6,755	630	106

See footnotes at end of table.



TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958—Continued

1963 Census product code	Type of farm equipment	1963							
		Number of com- panies	Number produced	Manufacturers' shipments					
				Total		Domestic		For export	
				Number	Value (\$1,000)	Number	Value (\$1,000)	Number	Value (\$1,000)
(35224 20)	PLOWS AND LISTERS—Continued								
	Moldboard plows—Continued								
	Mounted, 1-way—Continued								
	4-bottom:								
35224 42	Mounted.....	3	4,318	4,137	1,645	4,137	1,645	(D)	(D)
35224 43	Semimounted.....	4	11,485	11,624	5,859	11,624	5,859	(D)	(D)
	5-bottom and larger:								
35224 44	Mounted.....	5	10,587	10,615	6,689	10,396	6,567	219	122
35224 45	Semimounted.....								
	Mounted, 2-way:								
35224 46	1-furrow.....	10	733	825	287	825	287	(D)	(D)
35224 47	2-furrow.....								
35224 48	3-furrow.....								
	Disc plows, 1-way:								
35224 49	Drawn.....	11	657	777	540	417	256	360	284
35224 50	Mounted.....	7	1,242	1,188	405	743	246	445	159
	Disc plows, reversible, 2-way:								
35224 51	Drawn.....	7	659	689	770	601	721	88	49
35224 52	Mounted.....								
	One-way disc plows or tiller:								
35224 53	Width of cut under 10 feet.....	11	1,757	1,688	593	1,217	436	471	157
35224 54	Width of cut 10 feet and over.....	6	2,311	2,476	1,611	2,476	1,611	(D)	(D)
35224 55	Subsoilers (deep tillage).....	12	3,270	3,436	259	3,436	259	(D)	(D)
35224 56	Terracing and ditching plows.....	14	2,600	2,766	504	2,555	462	211	42
35224 57	Chisel plows or tillers (chisel or sweep type).....	15	11,674	10,886	5,084	7,848	3,550	3,038	1,534
35224 58	Other plows, except snow plows.....	11	11,776	11,959	1,207	11,959	1,207	(D)	(D)
	Listers (middlebusters, middlebrakers, and bedders), with or without planting attachments:								
35224 59	Drawn.....	10	13,040	12,635	2,252	12,635	2,252	(D)	(D)
35224 60	Mounted.....								
35224 61	Attachments, except planting attachments for listers (coulters, jointers, root cutters, subsoilers, fertilizer distributors, etc.).....	24	(X)	(X)	8,271	(X)	7,729	(X)	542
35224 62	Plowshares (quantity in thousands of pounds).....	21	29,497	30,432	10,278	29,098	9,849	1,334	429
35224 63	Parts for plows and listers, except plowshares.....	35	(X)	(X)	12,881	(X)	11,468	(X)	1,413
(35225 00)	HARVESTING MACHINERY, TOTAL.....	128	(X)	(X)	386,007	(X)	344,012	(X)	41,995
	Combines (harvester-threshers):								
	Pull type:								
35225 11	6 feet and under.....	-	-	-	-	-	-	-	-
35225 13	Over 6 feet and under 9 feet.....	7	4,798	4,727	10,857	2,910	6,123	1,817	4,734
35225 15	9 feet and under 12 feet.....								
35225 17	12 feet and over.....								
	Self-propelled: (basic units without heads)								
35225 18	Under 14 feet header size.....	7	15,096	14,547	51,013	12,304	43,335	2,243	7,678
35225 19	14 feet and under 16 feet header size.....	6	5,652	5,328	25,063	4,944	21,129	884	3,934
35225 20	16 feet and under 20 feet header size.....	5	6,415	6,540	35,880	4,833	27,268	1,707	8,612
35225 21	20 feet and over header size.....								
	Grain heads:								
35225 22	Under 14 feet header size.....	4	20,617	19,622	10,998	16,660	9,157	2,962	1,841
35225 23	14 feet and under 16 feet header size.....	4	4,037	3,950	2,781	2,942	2,063	1,008	718
35225 24	16 feet under 20 feet header size.....	4	2,656	2,641	2,169	1,920	1,548	721	621
35225 25	20 feet and over header size.....	3	225	305	272	305	272	(D)	(D)
	Corn heads:								
35225 26	2-row.....	6	11,834	11,926	13,127	11,594	12,764	332	363
35225 27	4-row.....	3	920	1,018	2,472	990	2,405	28	67
	Windrowers or swathers:								
35225 33	Drawn.....	7	5,917	6,000	13,191	5,345	11,796	655	1,395
35225 35	Self-propelled.....								
	Corn pickers:								
35225 41	1-row (drawn or mounted).....	5	3,814	4,603	3,508	4,126	3,049	477	459

See footnotes at end of table.

TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958—Continued

1958 Census product code	Type of farm equipment	1958							
		Number of com- panies	Number produced	Manufacturers' shipments					
				Total		Domestic		For export	
				Number	Value (\$1,000)	Number	Value (\$1,000)	Number	Value (\$1,000)
(35224 20)	PLOWS AND LISTERS—Continued								
	Moldboard plows—Continued								
	Mounted, 1-way—Continued								
	4-bottom and larger.....	5	8,709	11,087	3,628	10,837	3,553	250	75
	Mounted, 2-way.....	10	3,930	4,252	1,415	4,159	1,391	93	24
	Disc plows, drawn:								
	1-, 2-, and 3-disc.....	11	2,876	3,133	577	2,447	373	686	204
	4-disc and larger.....	9	2,325	2,544	1,749	662	650	1,882	1,099
	Disc plows, mounted:								
	1- and 2-disc.....	8	1,204	1,658	290	1,443	245	215	45
	3-disc and larger.....	10	3,398	2,975	1,014	1,947	670	1,028	344
	One-way disc plows or tillers:								
	Width of cut under 5 feet.....	8	827	1,014	277	897	256	117	21
	Width of cut 5 feet and larger.....	10	4,496	4,754	2,785	4,754	2,785	(D)	(D)
	Subsoilers (deep tillage).....	18	7,750	7,902	1,925	5,965	1,258	1,937	667
	Terracing and ditching plows.....	16	4,071	3,943	634	3,713	589	230	45
	Rotary-tiller plows, field type.....	19	3,366	3,477	1,037	3,464	1,014	13	23
	Other plows.....	15	15,140	12,969	2,367	12,234	2,277	735	90
	Listers, with or without planting attachments.....	29	(X)	(X)	7,123	(X)	6,839	(X)	284
	Attachments for plows and listers, except planting attachments.....	23	35,950	38,128	9,923	36,717	9,453	1,411	470
	Flow shares (quantity in thousands of pounds).....	50	(X)	(X)	12,709	(X)	11,780	(X)	929
	Parts for plows and listers, except plow shares....								
(35225 00)	HARVESTING MACHINERY, TOTAL <sup>3</sup> .....	(X)	(X)	(X)	311,916	(X)	294,948	(X)	16,968
	Combines (harvester-threshers):								
	Pull type:								
35225 11	6 feet and under.....	5	6,574	6,745	7,485	6,745	7,485	(D)	(D)
35225 13	Over 6 feet and under 9 feet.....	7	14,464	14,048	19,009	13,154	17,837	894	1,172
35225 15	9 feet and under 12 feet.....	6	1,132	1,271	3,234	1,011	2,673	260	561
35225 17	12 feet and over.....								
	Self-propelled:								
35225 22	Under 12 feet.....	5	6,958	7,030	24,029	6,713	22,956	317	1,073
35225 26	12 feet and under 15 feet.....	7	18,009	17,963	79,141	16,424	72,264	1,539	6,877
35225 27	15 feet and over.....								
35225 28	Corn picking units (attachments for combines)....	6	5,974	6,094	5,611	5,991	5,514	103	97
	Windrowers and swathers:								
35225 33	Pull type.....	7	555	1,031	514	1,031	514	(D)	(D)
35225 35	Self-propelled.....	6	(D)	2,880	4,795	2,880	4,795	(D)	(D)
	Corn pickers:								
	Drawn:								
35225 41	1-row.....	6	4,872	5,342	4,321	4,809	3,946	533	375

See footnotes at end of table.



TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958—Continued

1963 Census product code	Type of farm equipment	1963							
		Number of com- panies	Number produced	Manufacturers' shipments					
				Total		Domestic		For export	
				Number	Value (\$1,000)	Number	Value (\$1,000)	Number	Value (\$1,000)
(35225 00)	HARVESTING MACHINERY—Continued								
	Corn pickers—Continued								
	2-row:								
35225 45	Drawn.....	8	16,637	16,652	28,499	16,161	27,712	491	787
35225 47	Mounted.....								
35225 48	Picker-shellers (drawn, mounted, or self-propelled).	(X)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
35225 46	Field shelling attachments for corn pickers, including conversion packages.....	4	2,103	2,069	1,207	2,069	1,207	(D)	(D)
35225 51	Potato diggers.....	(X)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
35225 53	Potato harvesters.....	16	674	539	2,918	539	2,918	(D)	(D)
	Beet harvesters:								
35225 52	1-row.....	5	508	523	1,019	423	833	100	186
35225 54	2-row.....	8	946	982	3,177	947	3,064	35	113
35225 56	3-row.....	7	324	328	1,197	328	1,197	(D)	(D)
35225 57	Peanut diggers, shakers, and windrowers.....	6	2,129	2,170	956	2,170	956	(D)	(D)
35225 59	Peanut combines.....	5	2,043	1,970	5,908	1,919	5,826	51	82
	Field forage harvesters:								
35225 60	Self-propelled type.....	3	601	558	2,607	558	2,607	(D)	(D)
	Shear bar type (rigid knives and shear bar combination):								
	Basic machines:								
35225 62	Engine drive.....	5	179	187	493	187	493	(D)	(D)
35225 64	Power take-off.....	11	13,353	13,970	15,539	12,831	14,307	1,139	1,232
	Attachments for shear bar type forage harvesters:								
35225 66	Pick-up hay unit.....	11	6,085	6,802	2,309	6,322	2,173	480	136
35225 67	Cutter bar hay unit.....	8	2,073	2,063	890	1,526	659	537	231
	Row crop units:								
35225 68	1-row.....	10	11,876	10,984	4,099	10,257	3,820	727	279
35225 69	2-row.....	8	3,572	3,731	2,300	3,620	2,236	111	64
35225 70	Flail type (horizontal knives or vertical free- swinging knives or hammers), including discharge spouts.....	12	6,488	6,474	5,598	5,732	4,961	742	637
	Cotton pickers:								
35225 71	1-row.....	4	5,012	4,752	40,009	4,693	39,439	59	570
35225 73	2-row.....								
35225 75	Cotton strippers.....	16	4,380	3,737	4,535	3,737	4,535	(D)	(D)
35225 81	Other harvesting machinery.....	36	(X)	(X)	10,577	(X)	9,672	(X)	905
35225 83	Attachments.....	43	(X)	(X)	29,013	(X)	25,773	(X)	3,240
35225 85	Parts.....	53	(X)	(X)	50,648	(X)	47,587	(X)	3,061
(35226 00)	HAYING MACHINERY, TOTAL.....	62	(X)	(X)	131,769	(X)	114,558	(X)	17,211
	Mowers, cutter-bar type:								
35226 11	Drawn.....	8	14,716	13,920	4,515	10,003	3,294	3,917	1,221
35226 12	Semimounted.....	6	11,475	11,542	3,425	11,161	3,338	381	87
	Mounted:								
35226 14	Rear.....	8	29,865	29,653	7,066	26,817	6,326	2,836	740
35226 16	Side.....	8	6,332	7,374	2,053	7,142	1,990	232	63
	Rakes:								
35226 26	Side delivery (including combination side rakes and tedders), cylinder type: Ground driven.....	8	26,064	26,129	10,095	21,826	8,381	4,303	1,714
	Power take-off:								
35226 28	Mounted.....	6	4,063	4,276	1,217	3,796	1,071	480	146
35226 29	Semimounted.....								
35226 30	Side delivery (finger wheel type).....	3	7,537	7,537	1,940	7,537	1,940	(D)	(D)
35226 41	Hay stacking attachment for loaders.....	6	4,964	4,685	1,366	4,685	1,366	(D)	(D)

See footnotes at end of table.

TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958—Continued

1958 Census product code	Type of farm equipment	1958							
		Number of com- panies	Number produced	Manufacturers' shipments					
				Total		Domestic		For export	
				Number	Value (\$1,000)	Number	Value (\$1,000)	Number	Value (\$1,000)
(35225 00)	HARVESTING MACHINERY—Continued								
	Corn pickers—Continued								
	Drawn—Continued								
35225 43	2-row.....	5	5,240	4,926	6,262	4,926	6,262	(D)	(D)
	Mounted or semimounted:								
35225 45	1-row.....	10	24,600	25,443	32,653	25,335	32,486	108	167
35225 47	2-row.....								
35225 48	Picker-shellers (drawn, mounted, or self-propelled).....	4	4,767	4,621	2,017	4,621	2,017	(D)	(D)
35225 49	Self-propelled.....	-	-	-	-	-	-	-	-
35225 51	Potato diggers.....	13	1,176	1,237	762	1,025	661	212	101
35225 53	Potato harvesters.....	11	568	581	2,304	581	2,304	-	-
35225 55	Beet harvesters.....	9	2,277	2,277	3,563	2,066	3,199	211	364
35225 57	Peanut diggers, shakers, and windrowers.....	10	1,493	1,431	469	1,431	469	(D)	-
35225 59	Peanut combines.....	7	1,933	1,769	4,316	1,769	4,316	(D)	(D)
	Field forage harvesters:								
	Shear bar type (rigid knives or vertical combination):								
	Basic machines:								
35225 62	Engine drive.....	10	1,830	1,698	2,034	1,632	1,955	66	79
35225 64	Power take-off.....	12	9,327	11,539	10,943	11,079	10,549	460	394
	Attachments for shear bar type forage harvesters:								
35225 66	Pick-up hay unit.....	11	3,762	3,636	812	3,446	775	190	37
35225 68	Cutter bar hay unit.....	14	4,670	5,569	2,026	5,331	1,943	238	83
35225 69	Row crop unit.....	11	9,864	9,478	3,207	9,244	3,136	234	71
35225 70	Flail type (horizontal knives or vertical free-swinging knives or hammers) including discharge spouts.....	5	11,503	10,570	7,163	10,570	7,163	(D)	(D)
35225 75	Cotton strippers.....	4	2,149	2,339	2,115	2,339	2,115	-	-
35225 71	Cotton pickers.....	4	1,107	1,139	8,781	1,096	8,653	43	128
35225 81	Other harvesting machinery.....	39	3,819	4,323	6,790	4,099	6,181	224	609
35225 83	Attachments.....	56							
35225 46	Field shelling attachments for corn pickers, including conversion packages.....	2	(X)	(X)	24,217	(X)	22,057	(X)	2,160
35225 85	Parts.....	64	(X)	(X)	43,343	(X)	40,723	(X)	2,620
(35226 00)	HAYING MACHINERY, TOTAL <sup>3</sup> .....	(X)	(X)	(X)	175,860	(X)	165,740	(X)	10,120
	Mowers, cutter-bar type:								
35226 11	Drawn.....	5	12,543	13,133	3,457	13,133	3,457	(D)	(D)
35226 12	Semimounted.....	7	34,245	34,789	8,623	33,027	8,192	1,762	431
35226 14	Mounted.....	12	40,046	41,500	6,954	38,625	6,481	2,875	473
	Rakes:								
35226 21	Sulky (dump).....	8	4,405	2,569	367	2,569	367	(D)	(D)
35226 24	Side delivery (revolving wheel-type).....								
	Side delivery (including combination side rakes and tedders) cylinder-type:	14	39,855	39,487	12,471	32,835	10,808	6,652	1,663
35226 26	Drawn.....								
35226 27	Mounted and semimounted.....	5	17,141	16,486	4,951	16,486	4,951	(D)	(D)
35226 41	Hay stackers.....	11	2,724	3,030	1,938	3,030	1,938	(D)	(D)

See footnotes at end of table.



TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958—Continued

1963 Census product code	Type of farm equipment	1963							
		Number of com- panies	Number produced	Manufacturers' shipments					
				Total		Domestic		For export	
				Number	Value (\$1,000)	Number	Value (\$1,000)	Number	Value (\$1,000)
(35226 00)	HAYING MACHINERY—Continued								
	Pick-up hay balers:								
	Wire:								
35226 51	Engine driven.....	8	1,325	1,595	4,179	1,515	3,993	80	186
35226 53	Tractor power take-off.....	8	3,060	3,182	5,090	2,971	4,787	211	303
	Twine:								
35226 55	Engine driven.....	7	1,941	2,087	3,940	1,917	3,487	170	353
35226 57	Tractor power take-off.....	8	39,931	40,246	49,266	33,811	41,066	6,435	8,200
	Hay conditioners:								
35226 61	Crimpers (one or both rollers corrugated).....	12	8,102	8,588	4,066	8,303	3,910	285	156
35226 62	Crushers (smooth rollers).....	10	8,241	8,584	4,862	7,670	4,360	914	502
35226 63	Hay crusher or hay conditioner attachments.....	3	1,602	1,451	809	1,451	809	(D)	(D)
35226 64	Bale throwing attachments for hay balers.....	5	8,087	7,779	2,596	7,779	2,596	(D)	(D)
35226 65	Hay bale loaders (field type).....	12	2,614	2,518	476	2,518	476	(D)	(D)
35226 81	Other haying machinery.....	15	(X)	(X)	2,256	(X)	2,256	(D)	(D)
35226 83	Other attachments.....	14	(X)	(X)	4,096	(X)	3,623	(X)	473
35226 85	Parts.....	26	(X)	(X)	18,537	(X)	17,509	(X)	1,028
(35228 10)	FARM DAIRY MACHINES AND EQUIPMENT, TOTAL <sup>4</sup> .....	30	(X)	(X)	17,333	(X)	15,853	(X)	1,480
	Mechanical installations:								
35228 03	Pumping outfits - stationary and portable.....	11	24,000	25,316	3,002	25,316	3,002	(D)	(D)
	Pail-type milking machines:								
35228 05	Suspended units.....	9	15,824	16,332	1,229	16,332	1,229	(D)	(D)
35228 06	Floor type (single unit).....	11	17,436	17,123	1,329	15,674	1,176	1,449	153
35228 07	Floor type (double unit).....								
35228 08	Pipeline milker units (individual clusters).....	(X)	(S)	(S)	(S)	(S)	(S)	(S)	(S)
	Cream separators, hand or power operated:								
35228 09	Capacity 500 pounds or less per hour, including bench type <sup>2</sup> .....	(X)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
35228 11	Capacity 501-800 pounds per hour.....	-	-	-	-	-	-	-	-
35228 12	Capacity 801-1,500 pounds per hour.....	-	-	-	-	-	-	-	-
35228 13	Farm milk coolers, not mechanically refrigerated... }	11	(X)	(X)	2,987	(X)	2,987	(X)	(D)
35228 14	Butter churns (farm size).....								
35228 15	Other farm dairy machines and equipment.....	15	(X)	(X)	8,776	(X)	8,202	(X)	574
35228 16	Attachments <sup>5</sup> .....								
35228 17	Parts <sup>5</sup> .....								
(35228 91)	SPRAYERS AND DUSTERS, TOTAL.....	99	(X)	(X)	49,251	(X)	42,868	(X)	6,383
	Power sprayers (except aircraft sprayers and dusters):								
35228 18	Self-propelled.....	7	2,295	2,002	4,161	1,954	4,059	48	102
	Not self-propelled:								
	Air-carried type:								
	Blower attachments:								
35228 19	For orchard use.....	6	192	222	319	222	319	(D)	(D)
35228 21	For other use.....								
	Complete units:								
35228 22	For orchard use.....	10	1,263	1,265	4,420	1,195	4,281	70	139
35228 23	For field and row crop use.....	11	2,722	2,551	947	2,551	947	(D)	(D)
35228 24	For other uses.....								
	Other than air-carried type:								
	Complete units:								
	Plunger-type pump sprayers:								
35228 25	Under 8 g.p.m. discharge	14	3,735	3,681	1,650	3,196	1,428	485	222
	Engine driven.....								
	Tractor power take-off driven:								
35228 26	Pump mounted directly on tractor	22	13,561	13,554	901	12,917	837	637	64
35228 27	power take-off shaft.....								
	Pump mounted other than on tractor								
	power take-off shaft.....								

See footnotes at end of table.

TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958—Continued

1958 Census product code	Type of farm equipment	1958							
		Number of com- panies	Number produced	Manufacturers' shipments					
				Total		Domestic		For export	
				Number	Value (\$1,000)	Number	Value (\$1,000)	Number	Value (\$1,000)
(35226 00)	HAYING MACHINERY—Continued								
	Pick-up hay balers:								
	Wire:								
35226 51	Engine driven.....	8	4,719	3,921	8,562	3,651	8,163	270	399
35226 53	Tractor power take-off.....	6	4,222	3,857	5,458	3,688	5,215	169	243
	Twine:								
35226 55	Engine driven.....	9	9,937	9,121	15,385	9,121	15,385	(D)	(D)
35226 57	Tractor power take-off.....	9	51,798	52,229	60,190	47,482	54,988	4,747	5,202
35226 65	Hay bale loaders (field type).....	20	4,220	4,301	1,108	4,301	1,108	(D)	(D)
35226 62	Hay crushers and field hay conditioners.....	11	32,476	31,698	15,571	31,147	15,291	551	280
35226 81	Other haying machinery.....	14	(X)	(X)	956	(X)	880	(X)	76
35226 83	Attachments.....	17	(X)	(X)	5,586	(X)	5,210	(X)	376
35226 85	Parts.....	34	(X)	(X)	24,283	(X)	23,306	(X)	977
(35228 10)	FARM DAIRY MACHINES AND EQUIPMENT, TOTAL <sup>2</sup> .....	(X)	(X)	(X)	20,211	(X)	11,752	(X)	2,001
	Mechanical installations:								
35228 11	Pumping outfits, stationary.....	9	32,752	32,607	3,163	28,458	2,742	4,149	421
35228 15	Pumping outfits, portable.....								
	Pail-type milking machines:								
35228 21	Suspended units.....	8	58,071	57,809	4,304	48,700	3,619	9,109	685
35228 25	Floor type (single unit).....	11	16,769	16,505	1,219	14,236	1,024	2,269	195
35228 27	Floor type (double unit).....	7	1,124	1,133	152	1,133	152	(D)	(D)
35228 31	Pipeline milker units (individual clusters).....	10	17,052	16,773	3,681	16,164	3,579	609	102
35228 51	Farm milk coolers, not mechanically refrigerated.	4	662	662	47	662	47	(D)	(D)
	Cream separators, hand or power operated:								
35228 41	Capacity 500 pounds or less per hour, including bench type.....	4	(D)	1,326	139	1,326	139	(D)	(D)
35228 45	Capacity 501-800 pounds per hour.....								
35228 47	Capacity 801-1,500 pounds per hour.....								
35228 61	Butter churns, farm size.....	21	57,847	57,775	450	57,775	450	(D)	(D)
35228 71	Other farm dairy machines and equipment.....								
35228 81	Attachments.....	19	(X)	(X)	7,056	(X)	6,458	(X)	598
35228 85	Parts.....								
(35228 91)	SPRAYERS AND DUSTERS, TOTAL <sup>3</sup> .....	(X)	(X)	(X)	41,038	(X)	38,511	(X)	2,527
	Power sprayers:								
	Plunger-type pump, except self-propelled:								
	Under 4 gallons per minute:								
	Skid mounted.....	9	1,214	1,283	337	1,086	306	197	31
	Wheel mounted.....	16	8,045	8,357	1,245	7,743	1,132	614	113
	4 g.p.m. and under 8 g.p.m.:								
	Field and row crop:								
	Direct PTO tractor mounted.....	13	3,374	3,441	531	3,337	513	104	18
	Except tractor mounted.....	12	5,217	5,245	2,863	5,007	2,620	238	243
	Other types.....	9	1,120	1,175	524	1,096	484	79	40

See footnotes at end of table.



TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958—Continued

1963 Census product code	Type of farm equipment	1963							
		Number of com- panies	Number produced	Manufacturers' shipments					
				Total		Domestic		For export	
				Number	Value (\$1,000)	Number	Value (\$1,000)	Number	Value (\$1,000)
	SPRAYERS AND DUSTERS—Continued								
	Power sprayers (except aircraft sprayers and dusters)—Continued								
	Not self-propelled—Continued								
	Other than air-carried type—Continued								
	Complete units—Continued								
	Plunger-type pump sprayers—Continued								
35228 28	8 g.p.m. discharge and over: Engine driven.....	11	3,292	3,349	3,595	3,349	3,595	(D)	(D)
35228 29	Tractor power take-off driven: Pump mounted directly on tractor power take-off shaft.....	10	5,056	4,914	616	4,914	616	(D)	(D)
35228 31	Pump mounted other than on tractor power take-off shaft.....	9	755	768	846	702	776	66	70
35228 32	Other than plunger-type pump sprayers (rollers, gear, etc.): Engine driven.....	12	1,083	1,199	548	1,199	548	(D)	(D)
35228 33	Tractor power take-off driven: Pump mounted directly on tractor power take-off shaft.....	23	26,678	26,215	4,222	25,882	4,174	333	48
35228 34	Pump mounted other than on tractor power take-off shaft.....								
35228 37	Wheeled-mounted, hand pulled type: Tank of 16 gallons capacity and under.....	8	5,327	5,329	544	4,900	486	429	58
35228 38	Tank of over 16 gallons capacity.....	11	1,641	1,920	347	1,823	326	97	21
35228 39	Hand sprayers, agricultural (except flame): Under 1 gallon.....	7	5,400,750	5,550,373	2,198	5,145,510	2,031	404,863	167
35228 41	1 gallon and over: Compressed air or gas.....	9	1,188,545	1,104,843	6,478	1,020,524	5,860	84,319	618
35228 42	Knapsack (liquid pump).....	6	43,224	46,337	694	40,391	574	5,946	120
35228 43	Wheel barrow.....	5	1,827	1,671	53	1,671	53	(D)	(D)
35228 44	Hose-end sprayers.....	9	772,322	807,799	1,674	807,799	1,674	(D)	(D)
35228 45	Flame sprayers, hand.....	8	18,569	20,595	353	18,768	316	1,827	37
35228 46	Spray pumps: Power driven, plunger-type.....	9	5,100	5,201	786	5,201	786	(D)	(D)
35228 47	Power driven, except plunger-type.....	8	21,462	23,995	739	23,995	739	(D)	(D)
35228 48	Hand driven (bucket, barrel, slide, etc.).....	9	92,772	84,813	370	84,813	370	(D)	(D)
35228 49	Dusters: Power: Engine driven.....	4	179	179	31	179	31	(D)	(D)
35228 51	Tractor power take-off.....	14	2,757	2,750	485	2,571	460	179	25
35228 52	Traction, all types.....	4	692	651	105	651	105	(D)	(D)
35228 53	Hand types: Crank or knapsack type.....	7	9,318	12,786	189	11,616	162	1,170	27
35228 54	Plunger type.....	7	306,893	293,761	377	281,554	362	12,207	15
35228 55	Attachments.....	19	(X)	(X)	2,697	(X)	2,470	(X)	227
35228 56	Parts.....	44	(X)	(X)	8,906	(X)	6,880	(X)	2,026
(35228 51) (35228 71)	FARM ELEVATORS AND BLOWERS, TOTAL.....	87	(X)	(X)	27,994	(X)	26,298	(X)	1,695
	Farm elevators, portable:								
35228 61	Single chain: Bale type only.....	18	18,755	17,892	1,434	15,873	1,307	2,019	127
35228 62	All other.....	16	5,065	4,480	796	4,405	779	75	17
35228 63	Double chain: Under 16 feet length.....	27	18,756	19,120	8,278	17,955	8,012	1,165	266
35228 64	16 feet length and over.....								
35228 65	Auger type: 4 in. and smaller diameter.....	13	33,801	34,936	1,056	29,574	928	5,362	128
35228 66	Over 4 in. diameter: With truck.....	10	46,751	45,974	5,443	45,974	5,443	(D)	(D)
35228 67	Without truck.....	15	24,923	23,882	2,876	23,882	2,876	(D)	(D)

See footnotes at end of table.

TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958—Continued

1958 Census product code	Type of farm equipment	1958							
		Number of com- panies	Number produced	Manufacturers' shipments					
				Total		Domestic		For export	
				Number	Value (\$1,000)	Number	Value (\$1,000)	Number	Value (\$1,000)
	SPRAYERS AND DUSTERS—Continued								
	Power sprayers—Continued								
	Plunger-type pump, except self-propelled—Con.								
	8 g.p.m. and over:								
	Field and row crop:								
	Direct PTO tractor mounted.....	10	2,757	2,694	656	2,604	608	90	48
	Except tractor mounted.....	12	1,630	1,585	856	1,547	833	38	23
	Other types.....	9	5,022	4,704	1,700	4,299	1,580	405	120
	Other than plunger-type pump, except self-propelled:								
	Field and row crop-direct PTO tractor mounted..	27	48,815	42,900	4,115	42,398	4,053	502	62
	Air blast type:								
	Field and row crop:								
	36 hp. and under.....	5	(D)	280	645	280	645	(D)	(D)
	Over 36 hp.....								
	Orchard and general purpose:								
	36 hp. and under.....	6	235	218	252	218	252	(D)	(D)
	Over 36 hp.....	5	894	893	3,219	893	3,219	(D)	(D)
	Air blast blower adapter.....	13	1,664	1,697	891	1,697	891	(D)	(D)
	Other types.....								
	Self-propelled sprayers.....	9	2,205	2,144	2,550	2,144	2,550	(D)	(D)
	Hand sprayers, agricultural (except flame):								
	Under 1 gallon.....	14	4,454,109	4,711,495	2,592	4,277,657	2,409	433,828	183
	1 gallon and over:								
	Compressed air or gas.....	12	904,846	927,873	5,649	839,679	4,983	88,194	666
	Knapsack (liquid pump).....	8	41,733	42,964	630	34,891	461	8,073	169
	Wheelbarrow.....	8	6,798	6,495	191	5,713	169	782	22
	Hose-end sprayers.....	(X)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Flame sprayers, hand.....	9	36,466	37,269	288	34,823	242	2,446	46
	Spray pumps:								
	Power driven, plunger type.....	12	23,868	23,856	1,327	23,856	1,327	(D)	(D)
	Power driven, except plunger type.....								
	Hand driven.....								
	Dusters:								
	Power:								
	Engine-driven.....	7	330	357	157	357	157	(D)	(D)
	Tractor power take-off.....	15	5,535	5,307	665	5,307	665	(D)	(D)
	Traction, all types.....	11	1,683	1,566	195	1,566	195	(D)	(D)
	Hand type:								
	Crank or knapsack.....	9	14,918	17,016	293	14,192	223	2,824	70
	Plunger type.....	9	317,931	358,243	397	336,010	371	22,233	26
	Attachments.....	20	(X)	(X)	1,349	(X)	1,236	(X)	113
	Parts.....	51	(X)	(X)	6,472	(X)	5,960	(X)	512
(35228 51) (35228 71)	FARM ELEVATORS AND BLOWERS, TOTAL <sup>3</sup> .....	(X)	(X)	(X)	38,980	(X)	37,952	(X)	1,028
	Farm elevators, portable:								
	Single chain.....	17	24,210	24,051	2,312	24,051	2,312	(D)	(D)
	Double chain.....	37	48,816	48,191	15,798	45,950	15,246	2,241	552
	Auger type.....	24	140,987	142,085	10,252	136,114	10,052	5,971	200

See footnotes at end of table.



TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958—Continued

1963 Census product code	Type of farm equipment	1963							
		Number of com- panies	Number produced	Manufacturers' shipments					
				Total		Domestic		For export	
				Number	Value (\$1,000)	Number	Value (\$1,000)	Number	Value (\$1,000)
(35228 51) (35228 71)	FARM ELEVATORS AND BLOWERS—Continued								
35228 68	Farm elevators, stationary.....	11	539	550	495	523	476	27	19
35228 69	Forage blowers, including combination grain and forage blowers.....	14	7,530	8,370	4,089	7,879	3,859	491	230
35228 71	Other farm elevators.....	10	(NA)	(NA)	1,012	(NA)	1,012	(D)	(D)
35228 72	Other farm blowers.....								
35228 73	Attachments for farm elevators.....	11	(X)	(X)	859	(X)	842	(X)	17
35228 74	Attachments for farm blowers.....	8	(X)	(X)	373	(X)	358	(X)	15
35228 75	Parts for farm elevators.....	19	(X)	(X)	901	(X)	885	(X)	16
35228 76	Parts for grain and forage blowers.....	8	(X)	(X)	382	(X)	382	(X)	(D)
(35228 81) (35228 85)	GARDEN TRACTORS, MOTOR TILLERS, ATTACHMENTS, AND PARTS .....	(X)	(X)	(X)	91,093	(X)	87,575	(X)	3,518
	Garden tractors (including motor tillers), total ..	(X)	353,409	344,774	54,275	324,436	51,732	20,339	2,543
	Garden tractors (except motor tillers), total <sup>6</sup> ..	(X)	105,369	103,203	34,394	98,038	33,039	5,165	1,355
	Riding type, total.....	(X)	76,999	75,844	29,710	75,844	29,177	(D)	(D)
35228 81	Under 5.5 engine hp.....	9	27,015	26,611	9,016	26,611	9,016	(D)	(D)
35228 82	5.5 to 6.9 engine hp.....								
35228 83	7.0 engine hp. and over.....	10	49,984	49,233	20,694	47,960	20,161	1,273	533
	Walking type, total .....	(X)	28,370	27,359	4,684	27,359	4,684	(D)	(D)
35228 84	Under 5.5 engine hp. ....	(X)	28,370	27,359	4,684	27,359	4,684	(D)	(D)
35228 85	5.5 to 6.9 engine hp. ....								
35228 86	7.0 engine hp. and over .....								
	Motor tillers, total.....	(X)	248,040	241,571	19,881	226,397	18,693	15,174	1,188
35228 87	2 engine hp. and under.....	21	248,040	241,571	19,881	226,397	18,693	15,174	1,188
35228 88	Over 2 engine hp. and under 6 engine hp.....								
35228 89	6 engine hp. and over.....								
35228 91, 92	Attachments for garden type <sup>2</sup> .....	23	(X)	(X)	15,758	(X)	14,783	(X)	975
35228 93	Parts for garden type (replacement and repair) <sup>2</sup> ..	(NA)	(X)	(X)	(X)	(X)	21,060	(X)	(X)
(35228 15)	CULTIVATORS AND WEEDERS, TOTAL.....	104	(X)	(X)	60,195	(X)	55,883	(X)	4,312
35229 01	Corn and cotton type cultivators: Drawn <sup>7</sup> .....	(X)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
35229 02	Mounted: 1-row.....	7	6,850	6,408	636	6,408	636	(D)	(D)
35229 03	2-row: Front mounted.....	6	6,028	6,722	581	6,579	552	143	29
35229 04	Rear mounted.....	11	3,564	4,738	985	4,314	891	424	94
35229 05	4-row: Front mounted.....	6	12,957	13,562	5,788	13,562	5,788	(D)	(D)
35229 06	Rear mounted.....	12	23,185	22,761	10,181	22,546	10,081	215	100
35229 08	6-row and larger: Front mounted.....	8	1,967	1,466	984	1,466	984	(D)	(D)
35229 09	Rear mounted .....								
35229 10	Beet, bean, and vegetable cultivators, drawn or mounted.....	6	1,587	1,724	334	1,724	334	(D)	(D)
35229 11	Rotary hoe cultivator sections, drawn or mounted...	33	63,134	65,904	7,053	65,213	6,975	691	78
35229 13	Field cultivators: Drawn.....	7	12,207	12,265	3,130	12,265	3,130	(D)	(D)
35229 14	Mounted.....	5	2,387	2,226	829	2,226	829	(D)	(D)
35229 15	Tool bars and tool bar carriers (basic unit only): Drawn.....	16	23,630	25,158	5,894	25,158	5,894	(D)	(D)
35229 16	Mounted.....								
35229 17	Rod weeders (drawn or mounted).....	7	10,869	9,472	1,424	9,472	1,424	(D)	(D)
35229 18	Other cultivators and weeders <sup>7</sup> .....	21	(X)	(X)	2,897	(X)	2,833	(X)	64
35229 19	Attachments.....	32	(X)	(X)	6,823	(X)	6,312	(X)	511
35229 20	Parts.....	36	(X)	(X)	12,597	(X)	11,989	(X)	608

See footnotes at end of table.

TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958—Continued

1958 Census product code	Type of farm equipment	1958							
		Number of com- panies	Number produced	Manufacturers' shipments					
				Total		Domestic		For export	
				Number	Value (\$1,000)	Number	Value (\$1,000)	Number	Value (\$1,000)
(35228 51) (35228 71)	FARM ELEVATORS AND BLOWERS—Continued								
	Farm elevators, stationary:								
	Bucket size 12" and smaller.....	7	547	547	225	547	225	(D)	(D)
	Bucket size 13" and wider.....	5	725	720	647	720	647	-	-
	Grain blowers (farm size).....	7	454	651	134	651	134	(D)	(D)
	Forage blowers, including combination grain and forage blowers.....	14	8,206	7,976	3,684	7,649	3,553	327	131
	Other farm elevators.....	22	1,424	1,575	584	1,565	575	10	9
	Other farm blowers.....	20	(X)	(X)	1,897	(X)	1,855	(X)	42
	Attachments for farm elevators.....	6	(X)	(X)	421	(X)	385	(X)	36
	Attachments for farm blowers.....	31	(X)	(X)	2,506	(X)	2,461	(X)	45
	Parts for farm elevators.....	11	(X)	(X)	520	(X)	507	(X)	13
	Parts for grain and forage blowers.....								
(35228 81)	GARDEN TRACTORS, MOTOR TILLERS, ATTACHMENTS, AND PARTS, TOTAL <sup>3</sup> .....	(X)	(X)	(X)	39,266	(X)	37,633	(X)	1,633
	Garden tractors (including motor tillers), total...	(X)	224,266	227,073	26,492	215,386	25,314	11,687	1,178
	Garden tractors (except motor tillers), total....	(X)	50,918	52,583	10,830	50,915	10,522	1,668	308
	Riding-type, total.....	(X)	13,661	12,643	3,724	12,643	3,724	(D)	(D)
	Under 6 engine hp.....	13	6,395	6,426	1,504	6,426	1,504	(D)	(D)
	6 and under 8 engine hp.....	6	5,377	4,304	1,588	4,304	1,588	(D)	(D)
	8 engine hp. and over.....	9	1,889	1,913	632	1,913	632	(D)	(D)
	Walking-type, total.....	(X)	37,257	39,940	7,106	38,272	6,798	1,668	308
	2 engine hp. and under.....	5	2,807	2,664	249	2,664	249	(D)	(D)
	Over 2 engine hp. but not over 6 engine hp...	14	27,632	30,768	5,484	29,100	5,176	1,668	308
	Over 6 engine hp.....	6	6,818	6,508	1,373	6,508	1,373	(D)	(D)
	Motor tillers, total.....	(X)	173,348	174,490	15,662	164,471	14,792	10,019	870
	2 engine hp. and under.....	8	21,904	22,444	1,964	22,444	1,964	(D)	(D)
	Over 2 engine hp.....	23	151,444	152,046	13,698	142,027	12,828	10,019	870
(35228 85)	Attachments and parts, total.....	(X)	(X)	(X)	12,774	(X)	12,319	(X)	455
	Attachments for garden type, total.....	(X)	(X)	(X)	9,162	(X)	8,809	(X)	353
	Except riding attachments for walking type....	31	(X)	(X)	8,978	(X)	8,625	(X)	353
	Riding attachments for walking type.....	11	(X)	(X)	184	(X)	184	(D)	(D)
	Parts for garden type (replacement and repair)...	21	(X)	(X)	3,612	(X)	3,510	(X)	102
(35228 15)	CULTIVATORS AND WEEDERS, TOTAL <sup>3</sup> .....	(X)	(X)	(X)	48,552	(X)	46,624	(X)	1,928
	Corn and cotton type cultivators:								
35229 01	Horse-drawn.....	8	5,441	6,000	74	3,176	30	2,824	44
35229 02	Tractor-drawn.....	6	1,951	1,626	289	1,626	289	(D)	(D)
	Mounted:								
35229 03	1-row.....	12	7,966	8,081	572	8,081	572	(D)	(D)
35229 04	2-row.....	17	21,417	26,224	3,689	25,323	3,537	901	152
35229 94	4-row.....	13	35,373	32,938	12,420	32,370	12,223	568	197
35229 95	6-row and larger.....								
35229 06	Beet, bean, and vegetable cultivators, drawn or mounted.....	11	2,584	2,593	296	2,593	296	(D)	(D)
35229 07	Rotary hoe cultivator sections, drawn or mounted...	32	83,284	76,268	5,735	75,758	5,699	510	36
35229 08	Stubble mulchers or tillers, chisel or sweep type..	6	1,150	1,132	329	1,132	329	(D)	(D)
35229 09	Field cultivators and field tillers, drawn or mounted.....	14	8,349	8,649	2,052	7,914	1,909	735	143
	Tool bar carriers:								
35229 10	Drawn.....	7	6,509	6,373	2,273	6,373	2,273	(D)	(D)
35229 89	Mounted.....	11	13,191	11,597	871	10,415	768	1,182	103
	Weeders, drawn or mounted:								
35229 12	Rod.....	6	5,184	3,731	694	3,731	694	(D)	(D)
35229 13	Toothed.....							(D)	-
35229 14	Other cultivators and weeders.....	30	(X)	(X)	2,714	(X)	2,623	(X)	91
35229 15	Attachments.....	34	(X)	(X)	8,117	(X)	7,544	(X)	573
35229 16	Parts.....	39	(X)	(X)	8,427	(X)	7,838	(X)	589

See footnotes at end of table.



TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958—Continued

1963 Census product code	Type of farm equipment	1963							
		Number of com- panies	Number produced	Manufacturers' shipments					
				Total		Domestic		For export	
				Number	Value (\$1,000)	Number	Value (\$1,000)	Number	Value (\$1,000)
(35228 21)	MACHINES FOR PREPARING CROPS FOR MARKET OR FOR USE, TOTAL .....	143	(X)	(X)	48,789	(X)	46,186	(X)	2,603
35229 21	Peanut pickers and threshers (stationary machines) ..	-	-	-	-	-	-	-	-
35229 22	Corn shellers, power:								
35229 23	Capacity 500 bushels per hour and under.....	9	1,428	1,645	1,559	1,645	1,559	(D)	(D)
	Capacity over 500 bushels per hour.....								
35229 24	Feed grinders and crushers, power:								
35229 25	Hammer mills, with hammers only.....	26	7,201	7,395	2,454	6,129	2,214	1,266	240
35229 26	Burr mills, with grinding plates only.....	11	5,837	5,437	1,609	4,675	1,533	762	76
35229 27	Combination roughage mills.....								
	Roller mills.....	12	2,473	2,543	1,379	2,319	1,272	224	107
35229 28	Feed mixers (farm size):								
35229 29	Stationary.....	8	547	604	302	604	302	(D)	(D)
	Portable.....	6	3,757	3,854	2,066	3,854	2,066	(D)	(D)
35229 30	Combination grinder-mixers:								
35229 31	Stationary.....	7	851	857	394	857	394	(D)	(D)
	Portable.....	18	12,033	11,328	15,159	10,727	14,484	601	675
35229 32	Tobacco curers.....	8	16,943	16,869	3,358	16,869	3,358	(D)	(D)
35229 33	Driers, grain, hay, and seed:								
35229 34	Heated air crop driers:								
	Batch type:								
	Power take-off operated.....	7	308	433	1,275	433	1,275	(D)	(D)
	Electric motor operated.....	9	3,836	3,861	2,061	3,861	2,061	(D)	(D)
35229 35	Continuous flow type.....	6	453	467	3,114	467	3,114	(D)	(D)
35229 36	Crop drying fans (over 15,000 c.f.m. at								
35229 37	approximately one inch pressure):								
	24 inches and under diameter.....	13	3,042	3,375	1,534	3,375	1,534	(D)	(D)
	Over 24 inches diameter.....								
35229 38	Other machines for preparing crops for market								
35229 39	or for use.....	73	(X)	(X)	6,241	(X)	5,562	(X)	679
35229 40	Attachments.....	15	(X)	(X)	2,199	(X)	2,057	(X)	142
	Parts.....	39	(X)	(X)	4,085	(X)	3,905	(X)	180
(35228 31)	FARM POULTRY EQUIPMENT, TOTAL.....	98	(X)	(X)	42,832	(X)	39,234	(X)	3,598
35229 43	Incubators (quantity in total egg capacity):								
35229 44	Chicken egg (2,000 egg capacity and over).....	8	27,082,092	24,666,045	3,751	14,424,207	2,576	10,241,838	1,175
35229 45	Turkey egg (2,000 egg capacity and over).....	10	2,076,657	1,795,023	423	1,647,930	389	147,093	34
	All other incubators (under 2,000 egg capacity)...								
35229 46	Brooders, floor:								
35229 47	Electric.....	15	37,511	38,537	173	37,647	161	890	12
35229 48	Oil.....	7	3,534	3,543	103	2,597	82	946	21
35229 49	Gas.....	13	107,348	108,896	2,545	101,711	2,336	7,185	209
	Coal and wood.....	5	4,892	4,892	204	4,892	204	(D)	(D)
35229 51	Brooders, battery (starting and growing) (quantity in number of decks).....	9	5,543	5,926	145	5,486	129	440	16
35229 52	Nests (hole and colony-type) (total linear footage):								
35229 53	Hand-gathered.....	26	2,412,825	2,424,354	3,007	2,367,432	2,924	56,922	83
	Mechanical-gathered.....	5	171,234	172,519	1,096	172,519	1,096	(D)	(D)
35229 54	Laying cages (total square feet of floor area).....	16	3,242,098	3,238,483	2,981	3,238,483	2,981	(D)	(D)
35229 55	Poultry feeders (except chick feeders):								
35229 56	Trough (except automatic) (total linear footage) ..	22	526,394	546,964	288	546,964	288	(D)	(D)
35229 57	Hanging.....	18	651,126	659,538	1,231	618,926	1,074	40,612	57
	Automatic (total linear footage of conveyor).....	19	6,521,774	6,579,575	9,874	5,999,449	9,209	580,126	665
35229 58	Chick feeders.....	18	398,489	412,975	329	389,304	315	23,671	14
35229 59	Poultry waterers:								
35229 61	Trough (total linear footage).....	27	2,640,448	2,631,765	2,952	2,543,858	2,823	87,907	129
35229 62	Automatic fountains.....	25	455,126	486,961	575	419,258	506	67,703	69
	All other waterers.....	20	1,813,824	1,876,075	944	1,596,325	869	279,750	75

See footnotes at end of table.

TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958—Continued

1958 Census product code	Type of farm equipment	1958							
		Number of com- panies	Number produced	Manufacturers' shipments					
				Total		Domestic		For export	
				Number	Value (\$1,000)	Number	Value (\$1,000)	Number	Value (\$1,000)
(35228 21)	MACHINES FOR PREPARING CROPS FOR MARKET OR FOR USE, TOTAL <sup>3</sup> .....	(X)	(X)	(X)	44,166	(X)	41,636	(X)	2,530
35229 17	Stationary threshers (except peanut).....	9	368	430	760	430	760	(D)	(D)
35229 18	Peanut pickers and threshers.....								
35229 19	Corn shellers, power:	4	423	547	65	547	65	(D)	(D)
35229 20	Capacity less than 150 bushels per hour.....	4	2,415	2,333	900	2,333	900	(D)	(D)
35229 21	Capacity 150 to 500 bushels per hour.....	5	919	1,075	1,534	1,075	1,534	(D)	(D)
35229 22	Capacity over 500 bushels per hour.....	4	(D)	455	173	48	21	407	152
35229 24	Ensilage cutters (silo fillers).....	25	9,238	9,571	1,970	6,826	1,550	2,745	420
35229 25	Feed grinders and crushers, power (farm size):	10	5,965	5,983	1,851	5,983	1,851	(D)	(D)
35229 26	Hammer mills, with hammers only.....	9	5,269	6,002	2,039	6,002	2,039	(D)	(D)
35229 27	Burr mills, with grinding plates only.....	18	9,662	9,308	2,673	9,308	2,673	(D)	(D)
35229 28	Combination roughage mills.....	10	2,343	2,393	388	2,393	388	(D)	(D)
35229 31	Feed mixers (farm size).....	11	3,812	5,491	646	5,295	614	196	32
35229 34	Grain and corn graders and cleaners (farm size)....	22	8,802	7,477	11,696	7,385	11,497	92	199
35229 30	Tobacco curers.....	7	5,572	5,155	709	5,155	709	-	-
35229 36	Driers, grain, hay, and seed:	70	(X)	(X)	9,713	(X)	8,432	(X)	1,281
35229 37	Heated air crop driers.....	29	(X)	(X)	5,357	(X)	5,161	(X)	196
35229 38	Crop drying fans (over 15,000 CFM at approxi- mately one inch pressure).....	50	(X)	(X)	3,692	(X)	3,442	(X)	250
(35228 31)	Other machines for preparing crops for market or for use.....	(X)	(X)	(X)	41,302	(X)	38,610	(X)	2,692
35229 39	FARM POULTRY EQUIPMENT, TOTAL <sup>3</sup> .....	8	1,506,747	1,506,779	276	1,406,673	262	100,106	14
35229 40	Incubators (quantity in total egg capacity):	8	7,897,127	7,666,790	1,277	6,458,926	1,050	1,207,864	227
35229 41	1,000 egg capacity and smaller.....	5	39,539,984	37,600,416	5,034	30,432,856	3,917	7,167,560	1,117
35229 42	1,001-19,999 egg capacity.....	16	94,482	100,275	459	96,606	432	3,669	27
35229 43	20,000 egg capacity and larger.....	8	24,302	25,510	864	22,501	778	3,009	86
35229 44	Brooders, floor:	13	111,463	115,570	3,620	109,454	3,432	6,116	188
35229 45	Electric.....	4	12,622	12,433	437	12,433	437	(D)	(D)
35229 46	Oil.....	13	111,463	115,570	3,620	109,454	3,432	6,116	188
35229 47	Gas.....	4	12,622	12,433	437	12,433	437	(D)	(D)
35229 48	Coal and wood.....	13	15,210	12,397	282	10,214	223	2,183	59
35229 49	Brooders, battery (quantity in number of decks)....	11	3,709	4,341	51	4,341	51	(D)	(D)
35229 50	Growing batteries (quantity in number of decks)....	33	1,783,430	1,803,323	2,662	1,790,396	2,609	12,927	53
35229 51	Nests, hens', trap and laying (quantity in number of openings).....	18	500,140	480,212	566	480,212	566	(D)	(D)
35229 52	Laying cages.....	38	1,847,923	1,890,136	2,945	1,820,256	2,876	69,880	69
35229 53	Poultry feeders:	20	1,782,063	1,874,910	3,431	1,843,372	3,367	31,538	64
35229 54	Trough type.....	14	17,282	17,345	7,585	16,602	7,292	743	293
35229 55	Hanging type.....	33	537,191	530,027	3,200	520,238	3,102	9,789	98
35229 56	Automatic.....	39	1,735,204	2,194,963	3,105	2,119,404	3,004	75,559	101
35229 57	Poultry waterers:								
35229 58	Trough type.....								
35229 59	Others.....								

See footnotes at end of table.



TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958—Continued

1963 Census product code	Type of farm equipment	1963							
		Number of com- panies	Number produced	Manufacturers' shipments					
				Total		Domestic		For export	
				Number	Value (\$1,000)	Number	Value (\$1,000)	Number	Value (\$1,000)
(35228 31)	FARM POULTRY EQUIPMENT—Continued								
35229 63	Poultry house cleaners.....	(X)	(D)	(D)	(D)	(D)	(D)	-	-
35229 64	Room egg coolers (2 hp. and under).....	(X)	(D)	(D)	(D)	(D)	(D)	-	-
35229 65	Egg cooler cabinets.....	(X)	(D)	(D)	(D)	(D)	(D)	-	-
35229 66	Egg washers (farm type - 12 cases and under per hour).....	10	1,559	1,584	541	1,584	541	(D)	(D)
35229 67	Other farm poultry equipment.....	39	(X)	(X)	8,347	(X)	8,059	(X)	288
35229 68	Attachments.....	12	(X)	(X)	840	(X)	840	(X)	(D)
35229 69	Parts.....	23	(X)	(X)	1,857	(X)	1,505	(X)	352
(35228 41)	BARN EQUIPMENT, TOTAL.....	62	(X)	(X)	17,986	(X)	17,399	(X)	587
35229 71	Feed and litter carriers (overhead).....	12	1,977	1,816	99	1,816	99	(D)	(D)
35229 72	Feed trucks.....	15	2,290	2,320	154	2,320	154	-	-
35229 73	Dairy cattle stalls for use with stanchions.....	21	48,052	48,640	799	48,640	799	(D)	(D)
35229 74	Chair tie stalls (all types).....	19	50,670	50,506	795	50,506	795	(D)	(D)
35229 75	Milking parlor stalls.....	9	7,167	7,270	735	7,270	735	(D)	(D)
35229 76	Panel type milking or feeding stalls.....	8	22,492	22,529	281	22,529	281	-	-
35229 77	Stanchions, swing type.....	18	103,565	100,555	681	98,671	670	1,884	11
35229 78	Livestock pens (dairy and hog) (quantity in number of feet).....	21	60,196	59,804	780	59,804	780	(D)	(D)
35229 79	Livestock water bowls, inside.....	19	258,127	257,213	1,295	257,213	1,295	(D)	(D)
35229 81	Barn cleaners.....	20	8,737	9,003	8,234	8,448	7,809	555	425
35229 82	Other barn equipment.....	20	(X)	(X)	620	(X)	620	(X)	(D)
35229 83	Attachments.....	11	(X)	(X)	1,074	(X)	1,074	(X)	(D)
35229 84	Parts.....	18	(X)	(X)	2,439	(X)	2,439	(X)	(D)
(35228 41)	BARNYARD EQUIPMENT, TOTAL.....	140	(X)	(X)	48,599	(X)	47,146	(X)	1,453
	Silo unloaders:								
35229 85	For tower silos.....	24	15,091	15,682	14,509	14,793	13,642	889	867
35229 86	For horizontal silos.....								
35229 87	Electric powered bunk feeders.....	23	8,339	8,499	3,822	8,187	3,619	312	203
35229 88	Animal stock tanks.....	30	178,957	175,558	4,834	175,558	4,834	-	-
35229 89	Hog troughs.....	22	131,062	129,348	236	129,348	236	(D)	(D)
35229 91	Livestock outside watering bowls.....	18	82,389	80,229	3,041	80,229	3,041	(D)	(D)
35229 92	Hog waterers.....	31	167,919	180,914	3,296	180,914	3,296	(D)	(D)
35229 93	Livestock water heaters.....	20	98,727	85,217	1,787	85,217	1,787	(D)	(D)
	Hog feeders:								
35229 94	Metal.....	39	219,717	211,422	8,103	210,486	8,072	936	31
35229 95	Wood.....	9	16,775	16,289	899	16,289	899	-	-
35229 96	Other barnyard equipment.....	47	(X)	(X)	6,206	(X)	6,071	(X)	135
35229 97	Attachments.....	14	(X)	(X)	472	(X)	472	(X)	(D)
35229 98	Parts.....	17	(X)	(X)	1,394	(X)	1,394	(X)	(D)

Note: The Census product codes shown in parentheses associated with product groups represent those codes used in the 1963 Census of Manufactures and correspond to those Census product codes in table 6A. Other 7-digit product codes represent those used in Current Industrial Reports M35A or M35S for 1963.

Source: Current Industrial Reports Series M35S, Tractors (product codes 3522203-23); and Current Industrial Reports Series M35A, Farm Machinery and Equipment (product codes 3522311-3522998).

Standard Notes: - Represents zero. (NA) Not available. (X) Not applicable.

(D) Withheld to avoid disclosing figures for individual companies. Data for these products for 1963 only are included in the totals. Where applicable both quantity and value of export shipments have been combined with domestic shipments.

(S) Pipeline milker units data suppressed due to incomplete coverage.

<sup>1</sup>The horsepower rating for these tractors are based on the corrected maximum belt or P.T.O. horsepower.

<sup>2</sup>Data are limited to attachments and parts shipped by companies manufacturing complete tractors.

<sup>3</sup>The total export figures for 1958 reflect only the sum of publishable products and, therefore, exclude data withheld to avoid disclosing figures of individual companies. Total domestic figures for 1958 include all domestic shipments and, also, include those export figures withheld to avoid disclosing figures of individual companies.

<sup>4</sup>Excludes pipeline milker units.

<sup>5</sup>Data for cream separators capacity 500 pounds or less per hour included with parts and attachments.

<sup>6</sup>Effective with 1963 respondents were requested to use the following definition for reporting: "Garden tractors are defined as tractors weighing less than 1,200 pounds (basic machine), typically powered by air-cooled engines with fewer than four cylinders and total piston displacement of under 45 cubic inches. Such tractors are further distinguished from farm tractors in that they usually carry an engine horsepower rating but not a belt horsepower rating." The 1958 reference list for Form MA35A carried no definition of garden tractors.

<sup>7</sup>Data for drawn corn and cotton type cultivators included with other cultivators and weedeers.

<sup>8</sup>Excludes value of stanchions shipped with stalls.

TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958—Continued

1958 Census product code	Type of farm equipment	1958							
		Number of com- panies	Number produced	Manufacturers' shipments					
				Total		Domestic		For export	
				Number	Value (\$1,000)	Number	Value (\$1,000)	Number	Value (\$1,000)
	FARM POULTRY EQUIPMENT—Continued								
35229 55	Other farm poultry equipment.....	35	(X)	(X)	2,936	(X)	2,849	(X)	87
35229 56	Attachments.....	14	(X)	(X)	743	(X)	724	(X)	19
35229 57	Parts.....	25	(X)	(X)	1,829	(X)	1,639	(X)	190
(35228 41)	BARN EQUIPMENT, TOTAL <sup>3</sup> .....	(X)	(X)	(X)	20,393	(X)	19,895	(X)	498
35229 58	Feed and litter carriers (overhead).....	15	1,754	1,661	116	1,661	116	(D)	(D)
35229 59	Feed trucks.....	19	3,592	3,793	243	3,727	239	66	4
35229 62	Dairy cattle stalls for use with stanchions.....	19	77,810	77,832	71,193	77,832	71,193	(D)	(D)
35229 63	Chain tie stalls (all types).....	17	33,141	33,084	657	33,084	657	(D)	(D)
35229 64	Milking parlor stalls.....	13	11,769	11,825	1,111	11,825	1,111	(D)	(D)
35229 65	Panel type milking or feeding stalls.....	7	10,113	9,991	141	9,991	141	(D)	(D)
35229 66	Stanchions, swing type.....	22	181,444	181,610	1,096	189,610	1,096	(D)	(D)
35229 67	Livestock pens (quantity in number of feet).....	15	67,484	67,510	409	67,501	409	(D)	(D)
35229 68	Livestock water bowls, inside.....	20	266,600	264,086	1,490	264,086	1,490	(D)	(D)
35229 69	Barn cleaners.....	23	12,364	12,477	11,229	11,867	10,749	610	480
35229 70	Other barn equipment.....	21	(X)	(X)	1,119	(X)	1,105	(X)	14
35229 71	Attachments.....	8	(X)	(X)	371	(X)	371	(X)	(D)
35229 72	Parts.....	17	(X)	(X)	1,218	(X)	1,218	(X)	(D)
(35228 41)	BARNYARD EQUIPMENT, TOTAL <sup>3</sup> .....	(X)	(X)	(X)	28,286	(X)	28,159	(X)	127
35229 92	Silo unloaders.....	12	5,416	5,487	5,002	5,487	5,002	(D)	(D)
35229 93	Mechanical feeders.....	14	4,811	4,770	612	4,770	612	(D)	(D)
35229 73	Animal stock tanks.....	35	139,784	142,783	3,565	142,783	3,565	(D)	(D)
35229 74	Hog troughs.....	24	152,483	159,063	289	152,483	289	(D)	(D)
35229 75	Livestock outside watering bowls.....	15	33,040	33,269	1,600	33,269	1,600	(D)	(D)
35229 76	Hog waterers.....	37	224,738	225,974	2,786	225,974	2,786	(D)	(D)
35229 77	Livestock water heaters.....	25	101,507	103,006	1,233	103,006	1,233	(D)	(D)
	Hog feeders:								
35229 78	Metal.....	41	229,449	224,168	8,380	222,951	8,350	1,217	30
35229 79	Wood.....	9	12,560	12,386	682	12,386	682	-	-
35229 80	Other barnyard equipment.....	55	(X)	(X)	3,372	(X)	3,275	(X)	97
35229 81	Attachments.....	11	(X)	(X)	260	(X)	260	(X)	(X)
35229 82	Parts.....	17	(X)	(X)	505	(X)	505	(X)	(D)



**TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
351--	Engines and turbines.....1963..	153	94
	.....1958..	121	112
3511-	Steam engines and turbines <sup>1</sup> .....1963..	157	78
	.....1958..	146	108
3519-	Internal combustion engines <sup>2</sup> .....1963..	150	102
	.....1958..	108	114
35191	Gasoline engines, except outboard, aircraft, automobile, truck, bus and tank <sup>2</sup> .....1963..	150	96
	.....1958..	118	101
35192	Diesel and semidiesel engines <sup>2</sup> .....1963..	157	107
	.....1958..	90	126
35193	Gas engines (except gas turbines) <sup>2</sup> .....1963..	166	72
	.....1958..	106	114
35195	Outboard motors.....1963..	169	117
	.....1958..	179	116
352--	Farm machinery and equipment.....1963..	( <sup>3</sup> )	( <sup>3</sup> )
	.....1958..	( <sup>3</sup> )	( <sup>3</sup> )

<sup>1</sup>Indexes based on horsepower and kilowatt capacity quantities rather than on number of units. Marine steam turbines have been excluded from the computation of unit value but their shipments are reflected in the production index.

<sup>2</sup>These indexes are based on piston size (displacement) quantities rather than on number of engines. The 4-digit (industry) level of production for the products of 3519 has been adjusted to include product class 35197 (parts and accessories for internal combustion engines) as well as product class 35196 (other internal combustion engines).

<sup>3</sup>Indexes for this group (primary products of industry 3522) are not shown pending further review of quantity and related shipments data.

TABLE 6C. **Product Classes—Value Shipped by All Manufacturing Establishments:**  
1947, 1954, 1958 to 1963

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3511-	Steam engines and turbines.....	589,101	552,418	584,733	623,124	639,876	753,988	426,197	119,027
35111	Steam, gas, and hydraulic turbine generator set units and parts.....	589,101	361,611	425,661	470,807	473,815	489,477	317,303	67,179
35112	Steam, gas, and hydraulic turbine and parts; steam engines and parts.....		190,807	159,072	152,317	166,061	264,511	108,894	51,848
3519-	Internal combustion engines.....	<sup>2</sup> 1,421,478	<sup>2</sup> 1,324,202	<sup>2</sup> 1,121,403	<sup>2</sup> 1,194,599	<sup>2</sup> 1,319,218	<sup>2</sup> 1,133,461	(NA)	(NA)
35191	Gasoline engines, except outboard, aircraft and automotive engines.....	<sup>3</sup> 267,430	<sup>3</sup> 273,468	<sup>3</sup> 235,887	<sup>3</sup> 237,599	<sup>3</sup> 286,022	<sup>3</sup> 230,069	192,541	165,663
35192	Diesel and semidiesel engines.....	464,428	424,198	345,765	363,552	407,239	314,480	247,134	(NA)
35193	Gas engines (except gas turbines).....	<sup>3</sup> 22,318	<sup>2</sup> 25,245	<sup>3</sup> 18,581	<sup>3</sup> 14,509	<sup>3</sup> 20,403	<sup>3</sup> 19,308	25,993	18,092
35195	Outboard motors.....	183,767	181,139	147,631	190,834	215,767	157,879	76,039	50,038
35196	Other internal combustion engines (including converted engines and tank engines)...						31,025	(NA)	(NA)
35197	Parts and accessories for internal combustion engines.....	480,602	420,152	373,539	386,688	388,401	379,358	289,858	194,797
35190	Internal combustion engines, n.s.k.....	2,933	-	-	(1,417)	(1,386)	1,342	(NA)	(NA)
3522-	Farm machinery and equipment.....	<sup>2</sup> 2,525,768	<sup>2</sup> 2,266,130	<sup>2</sup> 2,057,343	<sup>2</sup> 1,978,990	<sup>2</sup> 2,331,682	<sup>2</sup> 2,202,108	1,693,778	1,285,996
35222	Wheel tractors and parts and attachments... (except garden and contractors' off-highway).....	808,396	<sup>4</sup> 684,590	<sup>4</sup> 601,773	<sup>4</sup> 511,247	<sup>4</sup> 737,712	687,271	562,579	480,942
35223	Planting, seeding and fertilizing machinery and parts.....	<sup>3</sup> 111,912	<sup>3</sup> 104,538	<sup>3</sup> 95,725	<sup>3</sup> 98,075	<sup>3</sup> 110,662	<sup>3</sup> 101,197	93,593	73,990
35224	Plows, listers, harrows, rollers, pulverizers, and stalk cutters, and parts.....	<sup>3</sup> 191,631	<sup>3</sup> 163,150	<sup>3</sup> 145,699	<sup>3</sup> 146,392	<sup>3</sup> 183,098	<sup>3</sup> 165,962	137,111	140,952
35225	Harvesting machinery and parts.....	<sup>3</sup> 386,007	<sup>3</sup> 318,905	<sup>3</sup> 308,942	323,862	<sup>3</sup> 343,808	<sup>3</sup> 311,916	252,566	191,570
35226	Haying machinery and parts.....	<sup>3</sup> 131,769	<sup>3</sup> 126,496	<sup>3</sup> 123,998	140,351	<sup>3</sup> 163,654	<sup>3</sup> 175,860	147,883	94,903
35227	Lawn mowers and parts.....	268,661	244,705	222,406	237,647	249,355	239,815	138,420	71,053
35228	All other farm machinery and equipment.....	555,934	623,746	555,461	518,960	541,383	485,381	361,626	232,586
35220	Farm machinery and equipment, n.s.k.....	71,458	-	(3,339)	(2,456)	(2,010)	34,706	-	-

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>These figures represent the sum of 5-digit product class data obtained from Current Industrial Reports and from the census of manufactures or the annual survey of manufactures.

<sup>3</sup>Source for these data are as listed below:

35191 } Current Industrial Reports Series M35L  
35193 }

35223, }  
4, 5, } Current Industrial Reports Series M35A  
6 }

<sup>4</sup>Excludes value of parts sold to other plants producing wheel tractors.



**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
<b>GASOLINE ENGINES, EXCEPT OUTBOARD, AIRCRAFT AND AUTOMOTIVE ENGINES (35191)</b>	<b>1963<sup>1</sup></b>		<b>PLANTING, SEEDING, AND FERTILIZING MACHINERY, AND PARTS (35223)—Con.</b>	<b>1963<sup>1</sup></b>	<b>1958</b>	<b>LAWN MOWERS AND PARTS (35227)</b>	<b>1963<sup>1</sup></b>	<b>1958</b>
United States, total....	270,108		West North Central.....	26,879	14,963	United States, total....	268,661	239,815
East North Central.....	241,242		Minnesota.....	8,128	4,177	Northeast.....	6,540	25,733
Illinois.....	5,476		Iowa.....	12,651	7,588	East North Central.....	139,732	( <sup>2</sup> )
Michigan.....	64,780		Nebraska.....	3,621	1,438	Ohio.....	61,463	43,117
Wisconsin.....	165,646		South.....	10,852	4,072	Indiana.....	25,342	25,229
All other divisions.....	28,866		West.....	1,556	1,160	Illinois.....	23,058	30,980
<b>DIESEL AND SEMIDIESEL ENGINES (35192)</b>	<b>1963<sup>1</sup></b>	<b>1958</b>	<b>PLOWS, LISTERS, HARROWS, ROLLERS, PULVERIZERS, AND STALK CUTTERS, AND PARTS (35224)</b>			West North Central.....	71,400	( <sup>2</sup> )
United States, total....	464,428	314,450	United States, total....	192,837	160,576	Minnesota.....	22,107	( <sup>2</sup> )
East North Central.....	403,246	( <sup>2</sup> )	Northeast.....	1,766	1,544	Iowa.....	9,009	16,733
Illinois.....	107,720	85,889	East North Central.....	117,497	99,148	Missouri.....	27,777	20,922
Wisconsin.....	12,308	( <sup>2</sup> )	Illinois.....	93,488	74,989	South Atlantic.....	11,950	10,000
West North Central.....	2,196	( <sup>2</sup> )	West North Central.....	17,457	16,081	Florida.....	1,895	1,326
All other divisions.....	58,986	51,189	Minnesota.....	3,664	( <sup>2</sup> )	East South Central.....	31,177	5,897
<b>PARTS AND ACCESSORIES FOR INTERNAL COMBUSTION ENGINES (35197)</b>			Iowa.....	5,325	4,272	West South Central.....	3,306	( <sup>2</sup> )
United States, total....	480,602	379,358	Nebraska.....	1,417	1,603	West.....	4,556	( <sup>2</sup> )
Northeast.....	66,626	49,191	Kansas.....	5,396	5,361	<b>ALL OTHER FARM MACHINERY AND EQUIPMENT (35228)</b>		
New Jersey.....	2,748	( <sup>2</sup> )	South Atlantic.....	9,471	10,727	United States, total....	555,934	450,236
Pennsylvania.....	11,487	10,099	Georgia.....	8,396	6,984	Northeast.....	40,210	33,890
East North Central.....	363,136	298,919	East South Central.....	15,759	8,696	New York.....	17,852	15,229
Ohio.....	18,730	19,650	Tennessee.....	6,369	4,547	New Jersey.....	2,651	3,271
Illinois.....	87,571	91,946	West South Central.....	14,641	9,736	Pennsylvania.....	19,187	14,069
Wisconsin.....	81,051	60,287	Texas.....	10,811	8,959	East North Central.....	272,400	238,332
West North Central.....	21,713	11,318	Mountain.....	2,779	2,032	Ohio.....	29,895	28,764
Iowa.....	7,635	( <sup>2</sup> )	Pacific.....	13,467	12,612	Indiana.....	35,014	26,773
Missouri.....	6,428	( <sup>2</sup> )	California.....	13,331	12,213	Illinois.....	91,888	95,583
South.....	9,485		<b>HARVESTING MACHINERY, AND PARTS (35225)</b>			Michigan.....	33,625	28,229
Texas.....	5,928	19,930	United States, total....	395,299	321,434	Wisconsin.....	81,978	58,983
West.....	19,642		Northeast and South.....	48,246	25,178	West North Central.....	136,235	113,465
<b>WHEEL TRACTORS AND PARTS AND ATTACHMENTS (EXCEPT GARDEN AND CONTRACTORS' OFF-HIGHWAY) (35222)</b>			New York.....	1,906	( <sup>2</sup> )	Minnesota.....	36,229	26,111
United States, total....	808,396	687,271	East North Central.....	206,549	197,152	Iowa.....	66,787	49,137
East North Central.....	440,962	441,549	Illinois.....	149,896	( <sup>2</sup> )	Missouri.....	6,899	7,236
Indiana.....	6,536	8,482	Wisconsin.....	19,111	( <sup>2</sup> )	Nebraska.....	10,318	15,878
Michigan.....	185,406	( <sup>2</sup> )	West North Central.....	127,067	90,294	Kansas.....	14,225	12,766
All other divisions.....	367,434	245,722	Minnesota.....	8,973	( <sup>2</sup> )	South Atlantic.....	38,934	17,300
Nebraska.....	1,511	( <sup>2</sup> )	Iowa.....	76,437	50,409	Virginia.....	3,643	2,789
<b>PLANTING, SEEDING, AND FERTILIZING MACHINERY, AND PARTS (35223)</b>			Mountain.....	5,973	( <sup>2</sup> )	North Carolina.....	9,015	2,730
United States, total....	115,720	95,984	Idaho.....	2,595	2,207	Georgia.....	9,596	4,034
Northeast.....	6,355	5,408	Pacific.....	7,464	( <sup>2</sup> )	Florida.....	4,177	2,046
East North Central.....	70,078	70,381	<b>HAYING MACHINERY AND PARTS (35226)</b>			East South Central.....	23,885	( <sup>2</sup> )
Ohio.....	7,003	11,411	United States, total....	133,804		Tennessee.....	8,344	2,922
Indiana.....	5,647	( <sup>2</sup> )	East North Central.....	37,423		Mississippi.....	2,745	2,029
Illinois.....	40,470	( <sup>2</sup> )	Illinois.....	24,483		West South Central.....	8,470	( <sup>2</sup> )
Wisconsin.....	16,115	( <sup>2</sup> )	West North Central.....	37,293		Arkansas.....	1,098	( <sup>2</sup> )
			Minnesota.....	4,803		Oklahoma.....	1,603	1,611
			Iowa.....	27,864		Texas.....	5,180	6,262
			Kansas.....	1,093		Mountain.....	5,546	4,130
			All other divisions.....	59,088		Idaho.....	1,332	( <sup>2</sup> )
						Colorado.....	3,740	2,542
						Pacific.....	30,254	26,491
						Washington.....	3,913	2,989
						Oregon.....	2,379	1,386
						California.....	23,962	22,116

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million reported.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 35191, Ohio, Indiana, Minnesota, Iowa, and Kentucky; 35192, New York, Pennsylvania, Ohio, Indiana, Michigan, Iowa, Texas, and California; 35197, Massachusetts, Connecticut, New York, Indiana, Michigan, Minnesota, Kentucky, Colorado, and California; 35222, Ohio, Illinois, Wisconsin, Minnesota, Iowa, Georgia, Kentucky, Louisiana, Texas, and Oregon; 35223, Pennsylvania, Missouri, North Carolina, and Alabama; 35224, Pennsylvania, Indiana, Wisconsin, North Dakota, Alabama, Mississippi, Louisiana, and Colorado; 35225, Pennsylvania, Ohio, Indiana, Missouri, North Dakota, Nebraska, Kansas, North Carolina, Georgia, Tennessee, Arkansas, Louisiana, Arizona, Utah, and California; 35226, Pennsylvania, Ohio, Indiana, South Dakota, North Carolina, Tennessee, and Oregon; 35227, Connecticut, Pennsylvania, Michigan, Wisconsin, Nebraska, Kansas, Georgia, Alabama, Mississippi, Oklahoma, Texas, and California; 35228, Maryland, West Virginia, South Carolina, and Kentucky.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3511.—STEAM ENGINES AND TURBINES			
	Materials, parts, containers, and supplies, total.....		(X)	219,107	(X)	328,353
	Mill shapes and forms (except castings):					
	Carbon steel:					
331010	Bars and bar shapes.....	Short tons.....	9,969	1,849	23,366	3,986
331012	Sheet and strip.....	do.....	18,569	3,746	31,261	6,120
331013	Plates.....	do.....	70,863	9,611	80,219	11,277
331015	Structural shapes.....	do.....	4,380	687	4,325	734
331017	Wire and wire products.....	do.....	4,683	1,973	7,392	1,389
331019	All other carbon steel mill shapes and forms.....	do.....				
	Alloy steel (except stainless):					
331021	Bar and bar shapes.....	do.....	3,650	2,350	4,394	1,805
331029	All other alloy steel mill shapes and forms.....	do.....	4,020	4,113	11,689	3,540
331031	Stainless steel mill shapes and forms.....	do.....	7,157	9,692	7,583	9,162
	Copper and copper-base alloy mill shapes and forms:					
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	8,551	4,011	(D)	(D)
335790	Insulated wire and cable.....	1,000 lbs. copper content.				
335102	Rod, bar and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	11,721	6,789	(D)	(D)
335123	Plate, sheet and strip, including military cups and discs.....	do.....	1,719	944		
335127	Pipe and tube.....	do.....	2,579	1,919		
	Aluminum and aluminum-base alloy mill shapes and forms:					
335202	Sheet, plate and foil.....	do.....	224	112	(X)	(X)
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	do.....	411	223	(X)	(X)
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	do.....				
333401	Primary metals - aluminum and aluminum-base alloy refinery shapes..		(D)	(D)	(X)	(X)
	Castings (rough and semifinished): <sup>1</sup>					
332011	Iron (gray and malleable).....	Short tons.....	10,238	5,697	17,439	9,381
332300	Steel.....	do.....	19,651	24,969	37,197	39,430
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	391	412	-	-
336200	Copper and copper-base alloy.....	do.....	2,765	2,955	7,397	5,195
339100	Iron and steel forgings <sup>2</sup> .....	Short tons.....	16,560	31,525	30,093	48,195
362120	Integral horsepower motors and generators (1 horsepower and over) <sup>2</sup> .	Number.....	1,939	9,576	(D)	(D)
	Bearings:					
356218	Ball.....		(X)	321	(X)	1,020
356228	Roller.....		(X)	128		
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	94,883	(X)	187,119
976000	Materials, parts, containers, and supplies, n.s.k.....		(X)	622	(X)	(X)
			INDUSTRY 3519.—INTERNAL COMBUSTION ENGINES			
	Materials, parts, containers, and supplies, total.....		(X)	694,115	(X)	507,924
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	32,598	6,771	21,675	5,384
331012	Sheet and strip.....	do.....	42,349	9,256	26,454	5,289
331013	Plates.....	do.....	15,045	2,235	12,210	1,734
331015	Structural shapes.....	do.....	3,285	575	878	142
331017	Wire and wire products.....	do.....	1,288	441	6,242	2,425
331019	All other carbon steel mill shapes and forms.....	do.....	2,786	964		
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	do.....	9,679	2,873	5,089	1,666
331029	All other alloy steel mill shapes and forms.....	do.....	1,920	810	584	256
331031	Stainless steel mill shapes and forms.....	do.....	1,638	1,682	1,244	1,243
	Copper and copper-base alloy mill shapes and forms:					
335728	Bare wire (for electrical conduction only).....	1,000 lbs.....	1,268	1,328	572	517
335790	Insulated wire and cable.....	1,000 lbs. copper content.				
335102	Rod, bar and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	479	319	4,432	2,698
335123	Plate, sheet and strip, including military cups and discs.....	do.....	13,133	5,639		
335127	Pipe and tube.....	do.....	1,494	1,285		
	Aluminum and aluminum-base alloy mill shapes and forms:					
335202	Sheet, plate and foil.....	do.....	(D)	(D)	1,647	970
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	do.....				
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	do.....				

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
INDUSTRY 3519.—INTERNAL COMBUSTION ENGINES—Continued						
333401	Primary metals - aluminum and aluminum-base alloy refinery shapes..	Short tons.....	(D)	(D)	9,646	4,377
999808	Aluminum and aluminum-base alloy scrap (excluding home scrap).....	...do.....	(D)	(D)	32,068	6,931
Castings (rough and semifinished): <sup>1</sup>						
332011	Iron (gray and malleable).....	...do.....	161,288	62,348	182,712	65,431
332300	Steel.....	...do.....	2,014	1,958	1,683	1,331
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	34,340	24,383	37,052	30,469
336200	Copper and copper-base alloy.....	...do.....	1,123	803	2,516	2,085
339100	Iron and steel forgings <sup>1</sup> .....	Short tons.....	52,926	25,185	35,537	16,127
362120	Integral horsepower motors and generators (1 horsepower and over) <sup>1</sup> .	Number.....	78,229	15,124	57,115	7,619
Bearings:						
356218	Ball.....	.....	(X)	3,268	} (X)	3,892
356228	Roller.....	.....	(X)	2,062		
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	489,355	(X)	343,671
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....	.....	(X)	35,451	(X)	3,667
INDUSTRY 3522.—FARM MACHINERY AND EQUIPMENT						
Materials, parts, containers, and supplies, total.....			(X)	1,426,108	(X)	1,183,592
Mill shapes and forms (except castings):						
Carbon steel:						
331011	Bars and bar shapes.....	Short tons.....	551,790	87,412	555,728	88,205
331012	Sheet and strip.....	...do.....	705,426	104,148	507,230	78,757
331013	Plates.....	...do.....	111,960	16,842	92,071	15,003
331015	Structural shapes.....	...do.....	81,054	12,213	60,882	9,348
331017	Wire and wire products.....	...do.....	23,194	4,848	18,077	4,087
331019	All other carbon steel mill shapes and forms.....	...do.....	136,969	28,296	105,867	22,626
Alloy steel (except stainless):						
331021	Bars and bar shapes.....	...do.....	48,651	10,879	47,740	10,610
331029	All other alloy steel mill shapes and forms.....	...do.....	12,726	4,147	17,646	4,471
331031	Stainless steel mill shapes and forms.....	...do.....	2,827	4,222	2,309	3,180
Copper and copper-base alloy mill shapes and forms:						
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	49	29	40	33
335790	Insulated wire and cable.....	1,000 lbs. copper content.	538	485	283	320
335102	Rod, bar and mechanical wire, excluding extruded and/or drawn shapes.....	1,000 lbs.....	2,551	959	} 3,979	2,160
335123	Plate, sheet and strip, including military cups and discs.....	...do.....	543	323		
335127	Pipe and tube.....	...do.....	13,655	4,101		
Aluminum and aluminum-base alloy mill shapes and forms:						
335202	Sheet, plate and foil.....	...do.....	6,902	2,996	5,383	2,625
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	...do.....	(NA)	2,610	} 3,215	1,750
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	...do.....	4,041	1,794		
331051	Pig iron, excluding silvery iron.....	Short tons.....	134,270	7,822	171,619	11,106
999811	Iron and steel scrap.....	...do.....	320,761	13,392	217,967	9,384
Castings (rough and semifinished): <sup>1</sup>						
332011	Iron (gray and malleable).....	...do.....	212,497	64,659	292,566	83,270
332300	Steel.....	...do.....	11,705	7,264	21,802	9,163
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	9,838	5,651	6,705	4,274
336200	Copper and copper-base alloy.....	...do.....	541	392	2,003	1,192
339100	Iron and steel forgings <sup>1</sup> .....	Short tons.....	89,594	35,449	70,490	26,799
Engines: <sup>1</sup>						
351920	Diesel and semidiesel.....	Number.....	58,185	28,094	16,044	12,497
351901	Gasoline and other carburetor.....	...do.....	3,243,659	108,896	2,684,840	97,820
Electric motors and generators: <sup>1</sup>						
362115	Fractional horsepower electric motors (under 1 horsepower) (excluding timing motors).....	...do.....	117,623	2,366	155,878	2,812
362120	Integral horsepower motors and generators (1 horsepower and over)	...do.....	68,023	4,466	30,035	3,474
Bearings:						
356218	Ball.....	.....	(X)	22,052	} (X)	29,967
356228	Roller.....	.....	(X)	16,300		
301131	Pneumatic tires.....	Number.....	2,511,809	47,887	1,767,000	44,764
301141	Inner tubes.....	...do.....	4,125,013	8,979	1,286,000	4,780
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	644,833	(X)	543,581
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....	.....	(X)	121,302	(X)	55,534

Footnotes on next page.

TABLE 7A. **Materials by Kind: 1963 and 1958**—Continued

Footnotes for Table 7A-35A

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>In addition the following quantities were produced and consumed into products at the same establishment:

Code	Item	Unit of measure	Industry 3511	Industry 3519	Industry 3522	
			1963	1963	1963	1958
	Castings (rough and semifinished):					
332011	Iron (gray and malleable).....	Short tons...	(D)	38,183	301,285	320,136
332300	Steel.....	...do.....	-	-	(NA)	(NA)
336100	Aluminum and aluminum-base alloy.....	1,000 lbs....	-	(D)	2,362	1,044
336200	Copper and copper-base alloy.....	...do.....	588	-	240	(NA)
339100	Iron and steel forgings.....	Short tons...	375	-	5,136	(NA)
	Engines:					
351920	Diesel and semidiesel.....	Number.....	(NA)	(NA)	(D)	(NA)
351901	Gasoline and other carburetor.....	...do.....	(NA)	(NA)	75,721	194,898
	Electric motors and generators:					
362115	Fractional horsepower electric motors (under 1 horsepower) (excluding timing motors).....	...do.....	(NA)	(NA)	2,009	(NA)
362120	Integral horsepower motors and generators (1 horsepower and over).....	...do.....	-	-	(NA)	(NA)

<sup>2</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."



**TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962**

Item	Steam engines and turbines (SIC 3511)	Internal combustion engines (SIC 3519)	Farm machinery and equipment (SIC 3522)
Total cost of purchased fuels and electric energy.....\$1,000..	9,714	9,677	23,100
Total cost of purchased fuels.....do....	6,423	4,154	13,576
Bituminous coal, lignite, and anthracite:			
Quantity.....1,000 short tons..	262	145	437
Cost.....\$1,000..	2,307	1,134	2,985
Coke and breeze:			
Quantity.....1,000 short tons..	(S)	5	92
Cost.....\$1,000..	(S)	170	2,839
Fuel oil (distillate and residual):			
Quantity.....1,000 barrels of 42 gallons..	1,050	292	316
Cost.....\$1,000..	2,463	1,169	1,394
Gas (natural, manufactured, still, blast furnace, and coke oven):			
Quantity.....million cu. ft..	1,009	2,337	10,871
Cost.....\$1,000..	780	1,452	4,764
Other fuels.....do....	(S)	229	1,594
Electric energy:			
Purchased:			
Quantity.....million kw.-hrs..	315	430	682
Cost.....\$1,000..	3,291	5,523	9,524
Generated less sold.....million kw.-hrs..	377	66	255
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	374	363	669
Prime movers, total.....do....	164	67	186
Driving generators.....do....	127	36	104
Not driving generators.....do....	37	31	82
Electric motors, total.....do....	276	366	607
Driven by purchased energy.....do....	209	296	483
Driven by energy generated at establishment.....do....	67	70	124
Aggregate horsepower per 100 production workers.....	1,772	912	867

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3511-	STEAM ENGINES AND TURBINES										
	Entire industry.....	22	30,917	237,519	19,894	38,933	141,738	379,875	242,730	616,416	19,394
	Establishments with--										
	75% and over.....	13	22,627	174,587	14,754	28,418	106,496	296,616	185,246	475,146	14,623
3519-	INTERNAL COMBUSTION ENGINES										
	Entire industry.....	143	55,687	371,800	41,754	84,996	260,005	733,628	745,760	1,473,574	34,751
	Establishments with--										
	90% or more specialization...	104	33,600	226,418	25,162	50,728	156,239	512,480	509,296	1,022,221	21,971
	75-89% specialization.....	11	2,441	15,911	1,895	3,779	11,462	21,849	34,781	53,166	(D)
35191	Gasoline engines, except outboard, aircraft and automotive engines (primary product class of estab.).	20	11,246	70,465	8,952	17,399	51,993	127,386	155,555	279,464	4,772
	Establishments with--										
	90% or more specialization.....	7	5,468	34,101	4,746	9,158	27,190	69,734	73,464	141,544	1,928
35192	Diesel and semidiesel engines (primary product class of estab.).	15	22,911	162,303	16,787	35,129	110,897	339,672	366,516	702,098	21,695
35193	Gas engines (except gas turbines) (primary product class of estab.).	3	742	4,250	549	1,104	2,934	9,660	6,725	15,734	273
35197	Parts and attachments for internal combustion engines (primary product class of estab.).....	47	13,471	85,841	10,310	21,052	61,207	166,479	104,685	264,842	6,525
	Establishments with--										
	90% or more specialization.....	27	3,790	26,506	2,809	5,984	18,107	67,882	30,574	98,097	2,977
	75-89% specialization.....	8	1,636	9,412	1,383	2,677	7,365	19,131	22,696	39,619	1,193
3522-	FARM MACHINERY AND EQUIPMENT										
	Entire industry.....	1,568	112,614	689,122	84,650	168,911	476,827	1,328,381	1,536,761	2,842,243	64,431
	Establishments with--										
	90% or more specialization...	1,374	76,144	464,723	57,228	114,142	318,741	955,340	1,063,603	2,001,836	41,785
	75-89% specialization.....	69	14,456	88,842	10,588	21,391	60,953	143,368	174,640	316,290	6,021
35222	Wheel tractors and parts and attachments (except garden and contractors' off-highway) (primary product class of estab.).....	38	32,399	220,154	25,053	48,876	162,884	412,911	501,859	910,365	25,956
	Establishments with--										
	90% or more specialization.....	19	18,022	124,749	13,870	26,712	91,256	236,115	250,702	484,031	16,780
35223	Planting, seeding and fertilizing machinery and parts (primary product class of estab.).....	62	5,880	35,255	4,450	8,911	23,465	69,148	61,230	130,196	1,789
	Establishments with--										
	90% or more specialization.....	33	1,091	4,849	875	1,861	3,420	9,068	11,266	20,142	442
35224	Plows, listers, harrows, rollers, pulverizers, and stalk cutters and parts (primary product class of estab.).....	84	10,445	63,130	7,691	15,113	42,233	122,858	122,929	238,928	4,843
	Establishments with--										
	90% or more specialization.....	44	2,780	16,010	2,061	4,113	10,294	36,586	34,552	68,602	796
	75-89% specialization.....	13	1,538	9,522	1,150	2,268	6,640	17,042	19,340	35,311	334
35225	Harvesting machinery and parts (primary product class of estab.).	82	23,697	151,775	17,819	35,032	106,735	277,355	282,930	557,757	10,402
	Establishments with--										
	90% or more specialization.....	42	4,116	24,144	2,893	6,404	16,991	45,799	57,652	103,913	2,169
35226	Haying machinery and parts (primary product class of estab.).	25	3,850	26,867	2,576	5,506	15,844	50,512	48,684	98,334	1,340
	Establishments with--										
	75% and over.....	17	3,187	22,960	2,046	4,321	12,954	40,767	39,008	79,558	842

See footnotes at end of table.



TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3522-	FARM MACHINERY AND EQUIPMENT.—Continued										
35227	Lawn mowers and parts (primary product class of estab.).....	126	10,168	53,281	7,885	15,792	37,148	103,979	205,451	308,249	4,283
	Establishments with—										
	90% or more specialization....	93	3,925	18,307	3,050	5,897	12,321	45,921	90,992	141,893	1,475
	75-89% specialization.....	11	1,619	9,058	1,067	2,020	5,051	13,504	17,335	28,953	833
35228	All other farm machinery and equipment (primary product class of estab.).....	427	21,680	119,238	15,617	32,431	74,210	251,878	273,889	519,129	9,964
	Establishments with—										
	90% or more specialization....	305	10,971	57,974	8,170	17,121	36,202	136,292	136,831	260,525	5,357
	75-89% specialization.....	43	2,580	15,495	1,777	3,778	8,683	32,896	38,346	70,102	1,278

Standard Notes: - Represents zero.  
applicable.

(D) Withheld to avoid disclosing figures for individual companies.

(NA) Not available

(X) Not

TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation				Man-hours worked by production workers in the specified operation (1,000)
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>			
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more	
INDUSTRY 3511.—STEAM ENGINES AND TURBINES									
TOTAL, ALL OPERATIONS.....	20	(NA)	(NA)	(NA)	18,869	(NA)	(NA)	(NA)	33,669
Ferrous foundry.....	1	-	1	-	(D)	-	(D)	-	15
Nonferrous foundry (except die casting).....	2	-	1	1	(D)	-	(D)	(D)	36
Nonferrous die casting.....	-	-	-	-	-	-	-	-	-
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	3	-	-	3	150	-	-	150	283
Electroplating and other plating.....	1	1	-	-	(D)	(D)	-	-	2
Heat treating of metals.....	11	3	5	3	127	7	49	71	205
Automatic screw machine department.....	4	-	-	4	342	-	-	342	715
Machine shop.....	20	-	2	18	8,366	-	(D)	(D)	14,171
Tool and die shop.....	14	2	3	9	775	(D)	(D)	740	1,474
Foundry pattern shop.....	5	3	1	1	63	(D)	(D)	(D)	114
Plate or structural fabrication.....	10	-	2	8	2,138	-	(D)	(D)	3,471
Stamping, blanking and forming of metals.....	4	-	1	3	207	-	(D)	(D)	425
Painting, lacquering and enameling of metals.....	14	8	4	2	99	13	(D)	(D)	164
Assembly of product.....	16	1	2	13	2,605	(D)	(D)	2,586	4,994
Shipping department, including packing and crating....	16	5	7	4	297	11	75	211	574
All other operations such as maintenance, warehousing, etc.....	16	2	2	12	3,560	(D)	(D)	3,529	7,026
INDUSTRY 3519.—INTERNAL COMBUSTION ENGINES									
TOTAL, ALL OPERATIONS.....	95	(NA)	(NA)	(NA)	38,107	(NA)	(NA)	(NA)	78,255
Ferrous foundry.....	10	-	-	10	834	-	-	834	1,933
Nonferrous foundry (except die casting).....	5	2	1	2	121	(D)	(D)	(D)	(D)
Nonferrous die casting.....	5	1	1	3	638	(D)	(D)	(D)	1,326
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	1	1	-	-	(D)	(D)	-	-	(D)
Electroplating and other plating.....	15	5	7	3	172	12	66	94	326
Heat treating of metals.....	28	9	12	7	408	17	132	259	705
Automatic screw machine department.....	21	7	3	11	768	9	24	735	1,494
Machine shop.....	74	11	13	50	13,376	21	157	13,198	28,775
Tool and die shop.....	43	10	16	17	1,237	23	137	1,077	2,381
Foundry pattern shop.....	9	5	3	1	75	8	(D)	(D)	166
Plate or structural fabrication.....	16	5	3	8	665	10	26	629	1,382
Stamping, blanking and forming of metals.....	28	7	8	13	1,061	11	105	945	2,132
Painting, lacquering and enameling on metals.....	53	26	21	6	438	36	188	214	953
Assembly of product.....	66	12	12	42	7,065	19	164	6,882	14,226
Shipping department, including packing and crating....	65	25	20	20	1,973	42	185	1,746	3,615
All other operations such as maintenance, warehousing, etc.....	45	8	4	33	9,275	14	52	9,209	18,601
Number of establishments					Employment in the specified operation				
Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>				
	1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more		
INDUSTRY 3522.—FARM MACHINERY AND EQUIPMENT									
Ferrous foundry.....	42	6	13	23	5,145	8	152	4,985	
Nonferrous foundry (except die casting).....	23	10	11	2	293	24	(D)	(D)	
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	80	37	24	19	1,391	73	239	1,079	
Heat treating of metals.....	136	96	25	15	1,098	162	250	686	
Automatic screw machine department.....	66	43	16	6	626	71	165	390	
Machine shop.....	487	246	154	87	12,836	462	1,547	10,827	
Tool and die shop.....	216	122	61	33	2,631	218	556	1,857	
Foundry pattern shop.....	47	32	10	5	331	45	119	167	

See footnotes at end of table.



TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963—Continued

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3522.—FARM MACHINERY AND EQUIPMENT—Continued							
Plate or structural fabrication.....	263	113	110	40	2,741	225	1,049	1,467
Stamping, blanking and forming of metals.....	437	204	158	75	6,484	375	1,545	4,564
Painting, lacquering and enameling on metals.....	546	437	81	28	2,472	685	762	1,025
Assembly of product.....	545	216	184	145	15,696	394	1,707	13,595
Shipping department, including packing and crating...	538	388	112	38	3,822	695	968	2,159

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

Item	Industry		
	3511	3519	3522
Total number of establishments in the industry.....	22	143	1,568
Number of establishments which reported one or more of the specified operations.....	20	95	711
Percent of industry production workers in these establishments.....	90-95	90-95	85-90
Number of establishments which reported "none" of the operations apply.....	1	2	23
Percent of industry production workers in these establishments.....	0-5	0-5	0-5
Percent of industry production workers in establishments which completed the metalworking operations inquiry.....	95-100	95-100	90-95

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.

## CONSTRUCTION, MINING AND MATERIALS HANDLING MACHINERY AND EQUIPMENT

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3531—Construction Machinery and Equipment
- 3532—Mining Machinery and Equipment, Except Oil Field Machinery and Equipment
- 3533—Oil Field Machinery and Equipment
- 3534—Elevators and Moving Stairways
- 3535—Conveyors and Conveying Equipment
- 3536—Hoists, Industrial Cranes, and Monorail Systems
- 3537—Industrial Trucks, Tractors, Trailers, and Stackers

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3531—CONSTRUCTION MACHINERY AND EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing heavy machinery and equipment used by the construction industries, such as bulldozers; concrete mixers; cranes, except industrial plant; dredging machinery; pavers, and power shovels. Establishments primarily engaged in manufacturing mining equipment are classified in industry 3532, and well drilling machinery in industry 3533. For a detailed list of products of industry 3531, refer to table 6A, product codes 3531103 to 3531998.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Construction Machinery Industry totaled \$2,696 million. This amount included shipments of construction machinery (primary products) valued at \$2,332 million, shipments of other products (secondary products) valued at \$229 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$134 million.

This industry's shipments of construction machinery represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 89 percent. Secondary products shipped by this industry in 1963 include farm machinery and equipment (\$20 million) and motor vehicles and parts (\$15 million).



While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 21 percent of the total industry shipments are represented by plants specializing in scrapers, graders, rollers, and off-highway trucks, trailers, and wagons, excluding parts; and 20 percent in power cranes, draglines, shovels, and parts.

Shipments of construction machinery by this industry represented 89 percent of all shipments of these products (\$2,624 million) by all industries. In 1958 the coverage ratio was 90 percent.

The plants included in industry 3531 are, for the most part, typical of the heavy equipment industries. Their primary operations involve the fabricating of heavy materials (steel bars, plates and structural shapes) and the assembly of the complete machinery and equipment. Because of the wide range of construction equipment included within this industry, significantly different types of plants are involved. Those plants with a product line limited to the production of equipment for mounting on tractors or to the manufacture of draglines, buckets, and repair parts for construction machinery, etc., differ in at least one important respect from those plants producing complete machines, such as power cranes and shovels, motor graders, concrete mixers, pavers, and asphalt plants. In the first instance the operations are confined mostly to fabricating with only limited assembly operations being involved. The plants producing complete machines, however, involve extensive assembly operations in addition to such primary production activities as foundry, forging, and plate and structural fabricating operations.

An indication of the types of metalworking operations performed by all establishments classified in industry 3531 is shown in table 9. This table presents data on the number of plants performing selected metalworking operations and the approximate size of these operations based on employment.

#### 3532—MINING MACHINERY AND EQUIPMENT, EXCEPT OIL FIELD MACHINERY AND EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing heavy machinery and equipment used by the mining industries, such as coal breakers, mine cars, mineral cleaning machinery, concentration machinery, core drills, coal cutters, portable rock drills, and rock crushing machinery. Establishments primarily engaged in manufacturing construction machinery are classified in industry 3531, well drilling machinery in industry 3533, and coal and ore conveyors in industry 3535. For a detailed list of products of industry 3532, refer to table 6A, product codes 3532113 to 3532475.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Mining Machinery and Equipment Industry totaled \$418 million. This amount included shipments of mining machinery (primary products) valued at \$274 million, shipments of other products (secondary products) valued at \$92 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$51 million.

This industry's shipments of mining machinery represented 75 percent of its total product shipments. The industry specialization ratio in 1958 was 72 percent. Secondary products shipped by this industry in 1963 include conveyors and conveying equipment (\$6 million) and hoists (\$3 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 43 percent of total industry shipments are represented by plants specializing in parts and attachments for mining machinery, and 29 percent in underground mining machinery.

Shipments of mining machinery and equipment by this industry represented 82 percent of all shipments of these products (\$336 million) by all industries. In 1958 the coverage ratio was 78 percent. Industry 3545, Machine Tool Accessories, shipped \$8 million of mining machinery and equipment.

### 3533—OIL FIELD MACHINERY AND EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing machinery and equipment for use in oil and gas fields, or for drilling water wells. For a detailed list of products of industry 3533, refer to table 6A, product codes 3533111 to 3533431.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Oil Field Machinery Industry totaled \$667 million. This amount included shipments of oil field machinery (primary products) valued at \$519 million, shipments of other products (secondary products) valued at \$59 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$88 million.

This industry's shipments of oil field machinery represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was 92 percent. Secondary products shipped by this industry in 1963 include pumps and compressors (\$11 million) and construction machinery (\$5 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 48 percent of the total industry shipments are represented by plants specializing in oil and gas field production machinery, and 37 percent in rotary oil and gas field drilling machines.

Shipments of oil field machinery by this industry represented 91 percent of all shipments of these products (\$573 million) by all industries. In 1958 the coverage ratio was 94 percent.

It should be noted that industry 3533 includes only manufacturing plants engaged in the production of oil field machinery and equipment. Establishments primarily engaged in exploration, drilling, and well operation and maintenance are covered in the 1963 Census of Mineral Industries. In those instances where manufacturing plants were operated by companies primarily engaged in such nonmanufacturing activities as servicing and supplying the petroleum industry, separate establishment reports were obtained covering their manufacturing activities and such activities are included in industry 3533.

As shown in table 2, the plants classified in this industry are concentrated in or near the petroleum producing areas. Of the 408 plants classified in this industry, 315 plants are located in Texas, California, and Oklahoma.



### 3534—ELEVATORS AND MOVING STAIRWAYS

This industry comprises establishments primarily engaged in manufacturing passenger or freight elevators, automobile lifts, dumb waiters, and moving stairways. Establishments primarily engaged in manufacturing commercial conveyors systems and equipment are classified in industry 3535, and farm elevators in industry 3522. For a detailed list of products of industry 3534, refer to table 6A, product codes 3534011 to 3534097.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Some establishments classified in industry 3534 installed elevators and escalators which they produced in 1963. When the product was installed or erected by the regular labor force operating out of the manufacturing plant, the employment and payroll as well as the receipts for installation services are included in the statistics. However, if this equipment was installed or erected by a labor force separate from the regular force attached to the manufacturing plant, the installation costs and the income from installation were excluded from the report. The data in such instances include the engineering and supervising personnel on the regular plant payroll who were engaged in installing or testing the products. Where the installation was performed by a separate company, even though the services of that separate company may have been contracted for by the manufacturing plant, the installation costs and the receipts for installation were excluded from the report of the manufacturing plant.

Value of shipments and other receipts of the Elevators and Moving Stairways Industry totaled \$319 million. This amount included shipments of elevators and moving stairways (primary products) valued at \$235 million, shipments of other products (secondary products) valued at \$8 million, and miscellaneous receipts (mainly receipts for installation) at \$75 million.

This industry's shipments of elevators and moving stairways represented 97 percent of its total product shipments. The industry specialization ratio in 1958 was also 97 percent.

Shipments of elevators and moving stairways by this industry represented 95 percent of all shipments of these products (\$248 million) by all industries. In 1958 the coverage ratio was 80 percent.

The production index for the primary products of the industry increased to 173 in 1963 from the 1958 level of 109. The unit value index for 1963 was 111 compared to 118 in 1958. Both indexes were computed on a basis of 1954 = 100.

### 3535—CONVEYORS AND CONVEYING EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing conveyors and conveying equipment for installation in factories, warehouses, mines, and other industrial and commercial establishments. Establishments primarily engaged in manufacturing passenger or freight elevators, dumb waiters, and moving stairways are classified in industry 3534, and overhead traveling cranes and monorail systems in industry 3536. For a detailed list of products of industry 3535, refer to table 6A, product codes 3535111 to 3535211.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Some establishments classified in industry 3535, installed conveyors and conveying equipment they produced in 1963. The procedure described above for industry 3534

concerning the reporting of installation employees and receipts was also followed for establishments producing conveyors and conveying equipment.

Value of shipments and other receipts of the Conveyors Industry totaled \$495 million. This amount included shipments of conveyors (primary products) valued at \$342 million, shipments of other products (secondary products) valued at \$78 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$74 million.

This industry's shipments of conveyors represented 82 percent of its total product shipments. The industry specialization ratio in 1958 was 81 percent. Secondary products shipped by this industry in 1963 include general industry machinery, n.e.c. (\$6 million), and special industry machinery (\$5 million).

Shipments of conveyors by this industry represented 83 percent of all shipments of these products (\$415 million) by all industries. In 1958 the coverage ratio was 78 percent. Other industries shipping conveyors include industry 3566, Power Transmission Equipment, \$17 million, and industry 3531, Construction Machinery, \$8 million.

### 3536—HOISTS, INDUSTRIAL CRANES, AND MONORAIL SYSTEMS

This industry comprises establishments primarily engaged in manufacturing overhead traveling cranes, hoists, and monorail systems for installation in factories, warehouses, and other industrial and commercial establishments. For a detailed list of products of industry 3536, refer to table 6A, product codes 3536112 to 3536255.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Some establishments classified in industry 3536 installed hoists, cranes, and monorail systems they produced in 1963. The procedure described above for industry 3534 concerning the reporting of installation employees and receipts was also followed for establishments producing hoists, cranes, and monorail systems.

Value of shipments and other receipts of the Hoists, Cranes, and Monorails Industry totaled \$220 million. This amount included shipments of hoists, cranes, and monorail systems (primary products) valued at \$157 million, shipments of other products (secondary products) valued at \$40 million, and miscellaneous receipts (mainly receipts for repair work) at \$23 million.

This industry's shipments of hoists, cranes, and monorail systems represented 80 percent of its total product shipments. The industry specialization ratio in 1958 was 79 percent. Secondary products shipped by this industry in 1963 include construction machinery (\$7 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 64 percent of the total industry shipments are represented by plants specializing in overhead traveling cranes and monorail systems, and 35 percent in hoists.

Shipments of hoists, cranes, and monorail systems by this industry represented 70 percent of all shipments of these products (\$224 million) by all industries. In 1958 the coverage ratio was 78 percent. Industry 3531, Construction Machinery, accounted for \$12 million of shipments of hoists.

The production index for the primary products of the industry increased to 142 in 1963 from the 1958 level of 84. The unit value index for 1963 was 97 compared to 124 in 1958. Both indexes were computed on a basis of 1954 = 100.



### 3537—INDUSTRIAL TRUCKS, TRACTORS, TRAILERS, AND STACKERS

This industry comprises establishments primarily engaged in manufacturing industrial trucks, tractors, trailers, stackers (truck type), and related equipment, used for handling materials on floors and paved surfaces in and around industrial and commercial plants, depots, docks, and terminals. Establishments primarily engaged in manufacturing motor vehicles and motor vehicle type trailers are classified in Group 371; farm type wheel tractors in industry 3522; wheel tractor shovel loaders, tracklaying tractors in industry 3531; and wood pallets and skids in industry 2499. For a detailed list of products of industry 3537, refer to table 6A, product codes 3537011 to 3537081.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Industrial Trucks and Tractors Industry totaled \$447 million. This amount included shipments of industrial trucks and tractors (primary products) valued at \$370 million, shipments of other products (secondary products) valued at \$43 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$33 million.

This industry's shipments of industrial trucks and tractors represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent. Secondary products shipped by this industry in 1963 include "other hardware" (\$6 million).

Shipments of industrial trucks and tractors by this industry represented 81 percent of all shipments of these products (\$459 million) by all industries. In 1958 the coverage ratio was 84 percent. Other industries shipping industrial trucks and tractors include industry 3717, Motor Vehicles and Parts, \$26 million, and industry 3531, Construction Machinery, \$8 million.

# CONSTRUCTION AND LIKE EQUIPMENT: SIC 353

## Value Added by Manufacture by State: 1963

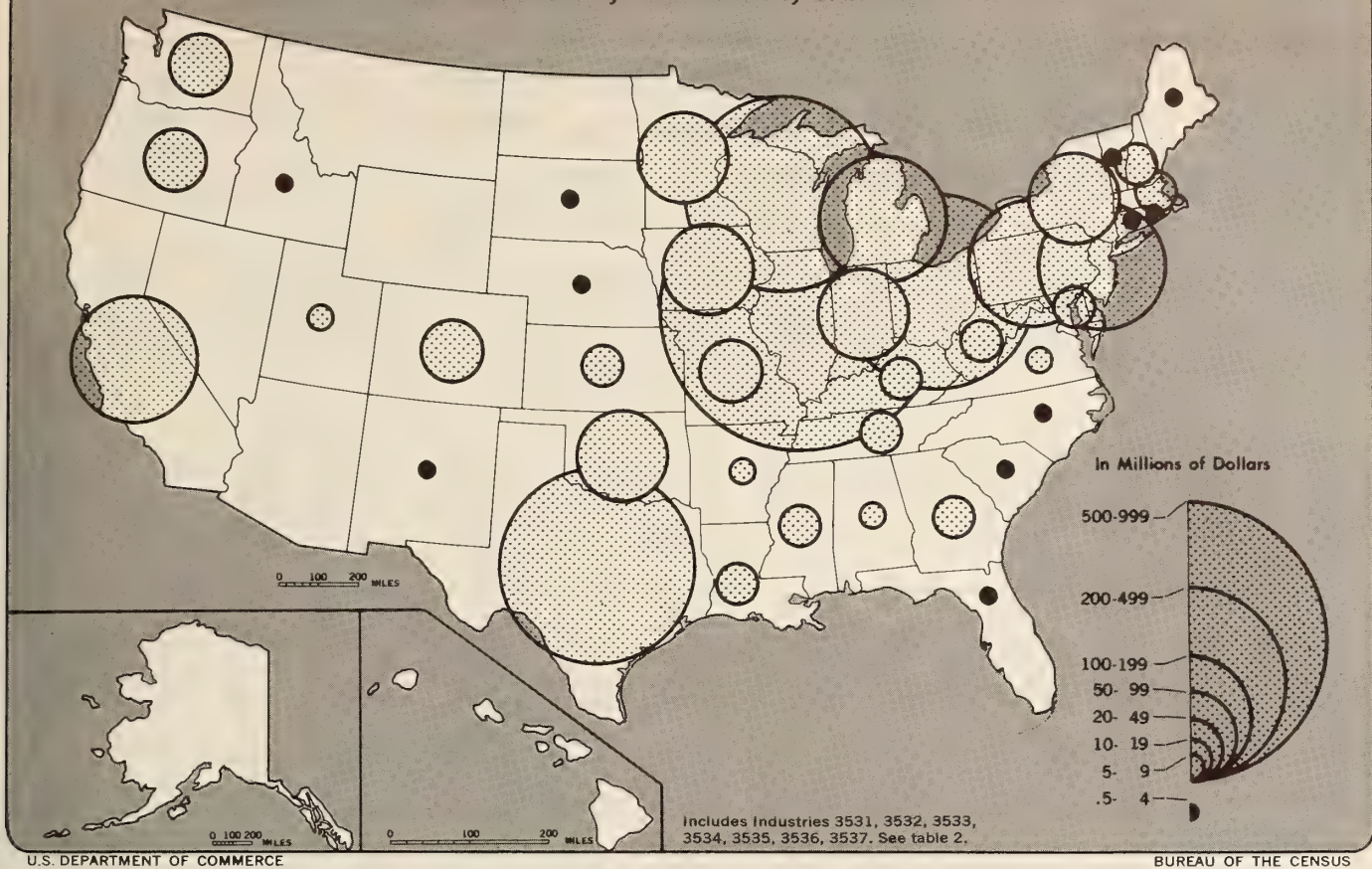




TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spec- ial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
	INDUSTRY 3531.—CONSTRUCTION MACHINERY													
1963.....	561	617	305	104,520	683,728	76,526	155,267	462,411	1,301,266	1,403,162	2,696,039	56,227	91	89
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	98,996	631,091	71,317	142,334	416,760	1,142,868	1,284,264	2,369,864	49,835	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	94,954	570,135	67,169	131,360	366,198	972,120	1,153,990	2,150,450	41,384	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	111,713	636,645	78,067	152,464	412,615	930,715	1,287,214	2,254,164	71,317	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	112,809	654,886	81,240	166,059	435,200	1,179,894	1,395,952	2,517,379	66,108	(NA)	(NA)
1958 <sup>2</sup> .....	532	579	295	95,304	496,751	66,510	124,622	310,252	1,022,801	1,033,605	2,107,352	45,377	88	90
	INDUSTRY 3532.—MINING MACHINERY AND EQUIPMENT													
1963.....	198	204	93	16,910	109,531	11,814	23,289	67,669	215,406	203,786	417,616	6,847	75	82
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,087	120,847	11,853	24,015	66,989	205,689	194,840	402,425	6,515	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,818	122,015	12,328	25,116	65,774	220,305	202,580	427,479	7,411	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,584	115,494	12,846	25,294	65,927	209,660	193,835	406,946	(6,286)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,103	104,298	12,025	23,720	61,322	204,572	189,668	399,549	6,017	(NA)	(NA)
1958 <sup>2</sup> .....	167	173	90	17,808	96,966	11,661	22,578	56,423	165,831	167,142	342,035	6,507	72	77
	INDUSTRY 3533.—OIL FIELD MACHINERY													
1963.....	373	408	176	29,203	184,288	20,114	41,409	113,526	398,152	264,350	666,532	11,321	90	91
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	28,454	179,287	18,591	41,034	106,351	381,660	242,222	625,265	(17,556)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	27,237	169,223	17,708	38,526	98,023	352,644	224,246	587,450	(12,849)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	31,157	187,416	20,147	43,086	108,295	369,962	249,102	615,108	16,071	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	33,042	194,534	21,934	45,875	114,307	400,068	271,706	654,086	20,203	(NA)	(NA)
1958.....	351	389	168	31,878	174,692	20,724	41,215	101,916	336,788	241,854	585,268	18,341	92	94
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	42,019	225,817	29,912	60,718	140,129	433,828	364,033	759,708	(S)	90	95
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	42,854	224,544	31,269	65,600	143,237	464,941	379,115	801,114	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	39,145	196,149	28,438	60,518	125,503	420,052	326,809	700,678	(S)	(NA)	(NA)
1954.....	319	345	158	33,687	161,802	24,143	49,577	102,320	327,509	217,378	542,500	18,188	89	93
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	34,721	161,872	24,962	52,989	105,414	306,079	202,690	508,769	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	35,847	162,191	26,162	57,247	108,200	314,190	220,857	535,047	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	32,525	138,408	23,449	52,905	91,913	286,665	190,934	477,599	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	26,677	101,737	19,510	41,201	67,023	204,827	135,446	340,273	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	25,580	93,559	19,364	38,745	61,046	168,934	121,121	290,055	(NA)	(NA)	(NA)
1947.....	204	230	133	29,177	91,532	22,709	47,510	65,083	171,265	117,588	288,853	11,295	88	91
1939 <sup>2</sup> .....	(NA)	239	(NA)	(NA)	(NA)	12,642	(NA)	18,940	58,101	31,451	89,552	(NA)	(NA)	(NA)
	INDUSTRY 3534.—ELEVATORS AND MOVING STAIRWAYS													
1963.....	126	142	74	12,393	88,389	7,427	15,458	49,634	201,527	114,684	318,616	3,315	97	95
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	(9,491)	(72,165)	(5,486)	(11,550)	(38,798)	(195,872)	(111,499)	(312,550)	(1,568)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	(9,784)	(67,019)	(5,477)	(11,451)	(35,997)	(179,523)	(88,634)	(265,056)	(2,782)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,909	59,745	5,311	10,469	31,751	149,732	83,580	235,405	1,319	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,323	55,893	5,542	11,723	31,579	135,225	80,510	216,778	(1,137)	(NA)	(NA)
1958.....	135	144	76	9,626	55,657	5,868	11,764	31,156	126,270	71,106	192,806	2,321	97	80
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,020	65,479	7,368	14,991	37,182	143,018	79,797	229,871	8,442	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,176	61,862	7,262	15,500	36,231	131,907	75,330	185,002	4,644	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,537	46,389	6,393	13,067	29,376	102,895	53,051	157,398	1,639	(NA)	(NA)
1954.....	127	131	66	10,257	49,518	7,017	14,164	31,766	99,763	64,603	167,494	1,429	87	89
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,198	47,828	6,664	14,018	30,683	82,940	60,965	143,905	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,985	53,179	8,015	16,762	33,976	79,876	71,546	151,422	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,141	47,252	7,671	16,298	30,559	70,390	62,409	132,799	(NA)	(NA)	(NA)
1947.....	108	111	62	10,227	33,998	7,317	15,331	22,890	68,614	33,201	101,815	1,855	92	91
1939 <sup>2</sup> .....	(NA)	101	(NA)	(NA)	(NA)	3,591	(NA)	5,111	16,945	9,871	26,816	(NA)	(NA)	(NA)
	INDUSTRY 3535.—CONVEYORS													
1963.....	428	454	175	20,778	140,617	12,642	26,312	74,020	270,475	231,080	494,632	6,125	82	83
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,227	137,017	12,704	25,208	70,939	249,154	215,808	460,279	9,060	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,851	121,393	11,498	23,688	61,427	215,282	181,905	399,789	(6,116)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,490	132,507	12,568	26,501	69,237	239,983	203,949	439,728	5,981	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,436	129,558	13,043	26,138	67,658	229,379	198,528	425,397	4,524	(NA)	(NA)
1958 <sup>2</sup> .....	401	420	150	20,789	119,431	12,698	25,584	62,578	192,892	186,979	385,714	7,197	81	78

See footnotes at end of table.

TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spec- ializa- tion ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
	INDUSTRY 3536.—HOISTS, CRANES, AND MONORAILS													
1963.....	120	120	56	9,585	64,301	6,776	13,980	41,433	112,327	110,949	220,015	2,644	80	70
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,467	53,993	5,769	11,713	32,565	88,445	77,241	166,030	3,325	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,473	50,690	5,657	11,543	30,068	82,244	77,567	162,650	3,317	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,611	57,718	6,835	13,527	35,314	93,133	91,566	188,151	4,521	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,784	50,868	6,214	12,261	30,689	85,877	82,136	164,305	2,582	(NA)	(NA)
1958 <sup>2</sup> .....	78	81	54	9,520	53,566	6,555	12,988	32,840	92,759	85,484	184,722	5,056	79	78
	INDUSTRY 3537.—INDUSTRIAL TRUCKS AND TRACTORS													
1963.....	304	314	108	17,570	110,444	11,454	23,815	64,476	233,116	215,499	446,957	6,696	90	81
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,473	100,374	10,837	22,223	58,113	175,410	190,664	360,562	4,134	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,670	90,827	9,873	20,320	49,874	144,832	167,494	319,449	(4,401)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,473	100,683	11,569	24,147	59,514	169,279	194,802	366,043	5,981	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,274	88,369	10,012	21,095	52,056	170,410	176,650	333,196	4,299	(NA)	(NA)
1958.....	254	262	96	14,786	76,200	9,545	18,121	42,982	117,500	140,421	269,328	3,344	93	84
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,979	96,817	12,088	23,826	58,098	156,796	172,395	328,319	(S)	89	87
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,593	97,422	13,026	27,009	60,629	188,794	177,425	344,455	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,039	85,527	12,251	25,205	55,162	147,320	161,310	302,423	(S)	(NA)	(NA)
1954.....	234	245	96	15,797	71,824	11,061	22,123	44,813	124,455	132,206	260,063	7,088	88	83
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,679	88,844	13,909	29,119	58,738	182,541	144,166	326,707	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,781	73,781	11,453	24,292	48,067	159,478	129,941	289,419	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,676	67,995	11,781	25,878	47,512	128,407	143,856	272,263	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,372	45,807	8,990	19,247	29,716	87,222	79,229	166,451	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,444	43,481	8,118	16,964	24,736	75,654	64,507	140,161	(NA)	(NA)	(NA)
1947.....	191	196	78	13,926	41,908	10,603	22,460	29,530	81,517	80,634	162,151	(NA)	84	84
1939 <sup>2</sup> .....	(NA)	70	(NA)	(NA)	(NA)	3,652	(NA)	4,576	13,181	17,174	30,355	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: **All employees:** For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). **Production workers:** For 1947 and prior years figures represent an average of 12 monthly figures. **Value added:** Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. **Cost of materials:** Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. **Value of shipments:** Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>No comparable figures are available for earlier years.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3531.—CONSTRUCTION MACHINERY													
Total.....	617	305	104,520	683,728	76,526	155,267	462,411	1,301,266	1,403,162	2,696,039	56,227	95,304	1,022,801
New England.....	22	8	747	4,279	545	1,134	2,742	5,909	5,387	11,818	263	963	7,588
Massachusetts....	12	4	268	1,710	183	399	1,008	1,843	2,362	4,142	52	313	3,140
Middle Atlantic....	72	36	4,740	29,515	3,251	6,622	18,544	54,793	58,409	113,594	3,280	5,790	74,855
New York.....	24	13	1,163	6,579	836	1,716	4,366	12,026	18,282	29,661	579	663	8,068
New Jersey.....	24	9	942	6,010	591	1,231	3,367	8,351	9,189	19,373	150	1,291	11,726
Pennsylvania.....	24	14	2,635	16,926	1,824	3,675	10,811	34,416	30,938	64,560	2,551	3,836	55,061
East North Central.	209	129	75,950	508,008	56,086	113,095	349,283	967,368	1,034,962	1,997,652	39,589	70,285	771,670
Ohio.....	64	40	12,371	81,491	8,662	17,672	51,725	153,546	188,313	344,038	4,822	12,082	99,894
Indiana.....	15	10	3,658	21,918	2,662	5,133	14,909	45,183	36,952	87,708	655	4,050	35,061
Illinois.....	61	36	44,715	304,441	34,066	68,746	217,095	576,436	606,136	1,163,578	28,920	36,749	477,030
Michigan.....	31	16	4,500	27,683	3,013	5,528	16,410	51,597	74,751	130,156	1,713	4,624	49,821
Wisconsin.....	38	27	10,706	72,475	7,683	16,016	49,144	140,606	128,810	272,172	3,479	12,780	109,864
West North Central.	82	45	10,579	65,208	7,512	15,665	41,756	131,011	147,322	275,520	7,701	8,687	74,988
Minnesota.....	30	14	4,038	24,608	2,825	5,989	16,023	42,555	42,260	83,984	2,843	3,134	24,831
Iowa.....	23	13	4,719	29,645	3,341	6,991	18,958	72,313	75,520	147,243	2,654	4,532	43,919
Missouri.....	12	9	1,134	7,106	789	1,504	4,111	11,030	19,588	29,127	1,988	448	2,781
Nebraska.....	6	4	213	1,098	181	377	814	2,018	1,861	4,069	56	178	871
Kansas.....	11	5	475	2,751	376	804	1,850	3,095	8,093	11,097	160	395	2,586
South Atlantic.....	28	6	1,178	7,627	858	1,728	4,506	20,427	25,220	43,018	1,284	1,175	15,918
East South Central.	15	5	665	3,923	520	1,158	2,833	7,786	7,482	14,731	493	928	7,353
West South Central.	53	29	4,045	22,176	3,096	6,680	14,667	37,496	49,297	87,943	1,248	2,761	24,689
Texas.....	34	17	2,374	13,042	1,788	3,922	8,348	20,882	26,148	48,064	645	1,520	13,201
Mountain.....	20	6	1,161	7,004	731	1,497	4,677	6,109	8,859	16,150	206	1,144	15,806
Pacific.....	116	41	5,455	35,988	3,927	7,688	23,403	70,367	66,224	135,613	2,163	3,571	29,934
Washington.....	14	6	1,141	8,237	947	1,871	6,447	11,794	11,401	23,303	644	727	6,657
Oregon.....	13	4	268	1,668	178	362	1,030	3,917	4,188	7,875	151	237	2,820
California.....	89	31	4,046	26,083	2,802	5,455	15,926	54,656	50,635	104,435	1,368	2,607	20,457
INDUSTRY 3532.—MINING MACHINERY AND EQUIPMENT													
Total.....	204	93	16,910	109,531	11,814	23,289	67,669	215,406	203,786	417,616	6,847	17,808	165,831
Northeast.....	44	28	4,993	31,257	3,380	6,835	19,738	53,369	73,203	129,635	2,045	5,279	47,032
Pennsylvania.....	34	22	3,137	20,506	2,035	4,085	12,394	32,362	51,583	84,402	909	3,286	30,747
East North Central.	48	27	7,030	47,807	4,880	9,297	28,432	93,965	84,061	174,091	2,732	7,021	59,434
Ohio.....	18	12	1,978	12,053	1,579	2,760	9,009	26,783	21,711	49,493	499	4,043	31,372
Illinois.....	11	6	1,170	7,917	801	1,434	4,389	13,397	11,802	24,838	412	1,464	12,161
Wisconsin.....	9	4	3,415	24,641	2,128	4,323	12,755	47,863	46,597	90,131	1,647	( <sup>2</sup> )	( <sup>2</sup> )
West North Central.	17	10	1,079	6,997	769	1,574	4,390	14,624	12,293	27,203	213	1,323	11,903
Missouri.....	7	4	221	1,614	143	298	856	3,690	2,187	5,822	79	( <sup>2</sup> )	( <sup>2</sup> )
South Atlantic.....	38	12	1,360	7,468	985	1,962	4,606	14,284	12,714	27,313	628	1,105	9,810
West Virginia....	27	9	1,184	6,484	854	1,682	4,030	11,007	10,222	21,557	521	936	7,324
East South Central.	7	3	258	1,341	176	355	783	3,091	1,764	5,018	17	246	1,650
West South Central.	12	1	82	418	64	126	299	1,002	900	1,790	154	307	3,285
Mountain.....	16	7	1,692	11,290	1,263	2,563	7,497	28,539	13,087	40,716	859	2,113	24,919
Colorado.....	10	6	1,632	10,818	1,224	2,476	7,206	27,468	12,569	39,134	813	( <sup>2</sup> )	( <sup>2</sup> )
Pacific.....	22	5	416	2,953	297	577	1,924	6,532	5,764	11,850	199	414	7,798
California.....	13	2	248	1,933	175	354	1,197	4,996	3,753	8,389	101	358	7,240
INDUSTRY 3533.—OIL FIELD MACHINERY													
Total.....	408	176	29,203	184,288	20,114	41,409	113,526	398,152	264,350	666,532	11,321	31,878	336,788
Northeast.....	13	6	902	5,618	653	1,311	3,698	12,233	7,680	20,054	232	1,496	12,458
Pennsylvania.....	6	4	743	4,731	547	1,098	3,157	9,917	5,702	15,748	145	1,431	11,801
East North Central.	23	9	807	4,450	530	1,079	2,764	9,661	6,221	16,647	288	877	7,609
Ohio.....	11	4	493	2,616	308	627	1,625	4,536	4,067	9,462	78	524	4,905
West North Central.	12	3	487	3,026	333	677	1,650	5,072	7,434	12,554	156	812	7,237
South.....	282	126	23,233	144,233	15,895	32,720	87,693	306,674	206,336	516,731	9,066	23,473	257,787
Louisiana.....	16	8	708	4,193	565	1,191	2,974	7,583	9,080	16,400	435	515	5,071
Oklahoma.....	67	24	4,228	25,240	3,035	6,130	16,425	51,427	43,977	97,160	925	4,265	35,955
Texas.....	184	90	17,703	111,515	11,827	24,419	65,922	244,221	150,306	396,587	7,478	18,257	214,409
Mountain.....	13	3	488	3,180	261	534	1,320	5,977	6,832	12,591	32	569	5,751
Pacific.....	65	29	3,286	23,781	2,442	5,088	16,401	58,535	29,847	87,955	1,547	4,651	45,946

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
INDUSTRY 3534.—ELEVATORS AND MOVING STAIRWAYS													
Total.....	142	74	12,393	88,389	7,427	15,458	49,634	201,527	114,684	318,616	3,315	9,626	126,270
New England.....	8	6	424	3,154	298	610	1,836	4,344	3,097	7,256	94	293	2,225
Middle Atlantic....	30	18	7,035	52,863	4,389	9,293	31,908	137,497	63,065	205,244	1,667	4,913	85,000
Pennsylvania.....	9	6	496	3,324	328	685	2,045	6,715	5,459	12,073	87	( <sup>2</sup> )	( <sup>2</sup> )
East North Central.	47	23	2,467	15,757	1,520	3,019	8,745	29,385	23,406	52,058	758	2,250	20,199
Ohio.....	15	7	1,182	7,397	702	1,386	3,920	12,332	11,415	23,617	513	1,260	10,519
Indiana.....	7	4	262	1,435	188	381	1,039	3,775	4,032	7,724	112	128	2,440
West North Central.	13	3	181	1,143	91	179	606	2,259	1,873	4,074	69	341	2,506
Minnesota.....	6	2	114	711	43	87	264	1,147	1,302	2,440	32	111	604
South.....	18	13	1,410	8,924	685	1,448	3,672	14,487	11,788	25,684	448	1,050	7,753
West.....	26	11	876	6,548	444	909	2,867	13,555	11,455	24,300	279	779	8,587
California.....	19	9	790	5,741	397	820	2,500	12,076	9,595	21,202	245	622	7,108
INDUSTRY 3535.—CONVEYORS													
Total.....	454	175	20,778	140,617	12,642	26,312	74,020	270,475	231,080	494,632	6,125	20,789	192,892
New England.....	18	5	296	1,957	207	441	1,153	3,844	2,644	6,436	63	284	2,018
Massachusetts....	13	5	258	1,660	182	383	977	3,380	2,414	5,742	43	222	1,510
Middle Atlantic....	92	35	5,812	38,008	3,271	6,739	19,089	75,680	70,453	144,238	1,715	5,694	56,689
New York.....	29	12	1,157	7,494	693	1,406	4,027	14,528	10,828	25,092	423	1,254	13,292
New Jersey.....	29	10	1,241	8,311	744	1,564	4,172	14,666	23,544	37,336	549	1,686	13,922
Pennsylvania.....	34	13	3,414	22,203	1,834	3,769	10,890	46,486	36,081	81,810	743	2,754	29,475
East North Central.	179	75	8,553	62,324	5,309	11,007	33,459	117,432	96,862	211,097	2,510	8,822	84,133
Ohio.....	38	18	1,793	11,187	1,072	2,293	5,693	19,340	19,252	38,172	587	1,527	12,670
Indiana.....	13	3	163	913	117	225	602	972	933	1,948	104	( <sup>2</sup> )	( <sup>2</sup> )
Illinois.....	53	17	2,205	15,297	1,372	2,912	8,866	27,632	21,908	49,458	574	3,103	33,104
Michigan.....	58	29	3,771	30,860	2,297	4,654	15,821	61,903	49,178	107,894	1,168	3,394	30,572
Wisconsin.....	17	8	621	4,067	451	923	2,477	7,585	5,591	13,625	77	704	7,072
West North Central.	45	17	1,745	11,919	1,004	2,154	5,650	21,309	16,117	36,958	507	1,510	14,765
Minnesota.....	13	4	560	3,252	320	604	1,664	5,889	5,550	11,471	54	487	4,359
Iowa.....	9	3	124	659	89	206	415	2,307	1,280	3,594	66	( <sup>2</sup> )	( <sup>2</sup> )
Missouri.....	12	4	520	3,787	309	677	1,779	6,596	4,572	11,121	143	478	4,373
South Atlantic....	19	6	741	4,516	452	901	2,092	10,978	9,871	20,821	329	724	6,594
East South Central.	18	9	1,619	8,820	1,180	2,543	5,650	19,852	14,755	33,880	515	1,989	11,908
Kentucky.....	8	4	873	5,399	629	1,294	3,382	10,155	5,967	15,834	178	672	5,631
West South Central.	24	10	762	4,373	495	1,029	2,339	6,987	6,338	13,196	199	521	4,101
Louisiana.....	3	2	115	760	77	138	442	1,093	648	1,730	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	11	6	536	3,010	337	719	1,525	4,957	4,649	9,480	129	400	2,978
Mountain.....	10	3	128	865	72	162	471	1,652	1,199	2,764	41	124	995
Pacific.....	49	15	1,122	7,835	652	1,336	4,117	12,741	12,841	25,242	246	1,121	11,689
Washington.....	6	1	111	690	71	136	403	1,167	957	2,100	7	( <sup>2</sup> )	( <sup>2</sup> )
California.....	38	13	942	6,652	528	1,090	3,375	10,913	11,167	21,831	232	1,022	10,787
INDUSTRY 3536.—HOISTS, CRANES, AND MONORAILS													
Total.....	120	56	9,585	64,301	6,776	13,980	41,433	112,327	110,949	220,015	2,644	9,520	92,759
Northeast.....	24	11	1,414	8,796	923	1,840	5,132	18,910	10,533	28,236	377	1,346	13,032
New York.....	7	3	806	5,015	523	1,064	2,901	11,029	4,960	15,427	164	( <sup>2</sup> )	( <sup>2</sup> )
Pennsylvania.....	9	6	450	2,635	300	577	1,530	6,310	3,676	9,345	185	( <sup>2</sup> )	( <sup>2</sup> )
East North Central.	40	22	5,455	37,943	3,905	8,225	24,959	59,722	70,990	129,743	1,048	6,093	58,309
Ohio.....	15	12	2,739	18,703	1,915	3,805	11,632	26,542	38,551	65,016	467	2,705	29,009
Illinois.....	8	4	1,193	9,432	855	1,937	6,148	17,026	17,019	33,264	177	1,490	12,042
Michigan.....	9	3	1,134	7,373	846	1,880	5,614	13,610	11,384	24,497	360	1,205	12,369
West North Central.	7	4	459	3,060	273	560	1,451	5,973	5,432	11,454	34	545	5,822
South.....	13	7	857	4,974	645	1,312	3,113	11,196	8,515	18,774	586	538	4,467
Texas.....	5	2	127	938	99	218	599	1,924	1,519	2,782	30	( <sup>2</sup> )	( <sup>2</sup> )
West.....	36	12	1,400	9,528	1,030	2,043	6,778	16,526	15,479	31,808	599	998	11,129
Washington.....	7	4	843	5,795	615	1,203	4,128	9,812	9,270	18,860	412	295	3,362

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3537.—INDUSTRIAL TRUCKS AND TRACTORS													
Total.....	314	108	17,570	110,444	11,454	23,815	64,476	233,116	215,499	446,957	6,696	14,786	117,500
New England.....	10	4	890	4,663	658	1,297	3,330	10,408	5,810	16,199	374	936	8,174
Middle Atlantic....	59	20	3,857	25,574	2,277	4,872	13,713	51,109	37,524	85,494	1,314	3,621	33,020
New York.....	26	10	767	4,633	499	1,035	2,472	13,380	8,975	22,100	367	481	5,127
New Jersey.....	9	2	121	650	92	189	457	1,133	926	2,047	16	( <sup>2</sup> )	( <sup>2</sup> )
Pennsylvania.....	24	8	2,969	20,291	1,686	3,648	10,784	36,596	27,623	61,347	931	3,050	27,013
East North Central.	98	41	8,113	53,325	5,251	10,848	31,842	119,299	119,710	240,694	3,296	6,254	48,201
Ohio.....	34	15	3,145	21,421	1,983	4,164	12,457	34,957	41,377	79,118	959	2,159	17,861
Indiana.....	5	3	112	584	87	185	444	1,561	812	2,374	122	216	1,202
Illinois.....	23	9	2,406	15,410	1,550	3,261	8,984	42,201	31,366	73,157	1,133	1,774	11,286
Michigan.....	23	11	2,183	14,346	1,436	2,848	9,047	36,927	42,189	78,525	940	1,927	16,488
Wisconsin.....	13	3	267	1,564	195	390	910	3,653	3,966	7,520	142	178	1,364
West North Central.	24	7	616	2,927	426	839	1,717	5,032	4,799	9,802	165	600	4,230
Minnesota.....	5	3	255	1,334	157	320	697	2,200	2,067	4,256	84	351	2,451
Iowa.....	5	2	166	785	119	217	497	1,326	1,216	2,528	26	( <sup>2</sup> )	( <sup>2</sup> )
South Atlantic.....	21	7	497	2,224	406	858	1,555	5,049	4,887	9,900	338	587	2,960
Georgia.....	6	2	214	865	179	362	645	2,309	1,601	3,880	182	451	2,099
East South Central.	12	6	740	3,314	560	1,188	2,115	7,371	8,794	15,718	133	416	2,677
Tennessee.....	3	3	336	1,387	302	625	1,052	1,890	2,382	4,236	26	( <sup>2</sup> )	( <sup>2</sup> )
West South Central.	16	4	461	2,418	337	792	1,532	5,186	3,374	8,623	233	195	1,644
Texas.....	11	4	412	2,204	296	705	1,359	4,800	2,692	7,555	213	( <sup>2</sup> )	( <sup>2</sup> )
West.....	74	19	2,396	15,999	1,539	3,121	8,672	29,662	30,601	60,527	843	2,177	16,594
Oregon.....	11	5	1,300	8,908	786	1,530	4,468	14,656	17,512	32,852	311	940	5,592
California.....	57	13	1,044	6,754	713	1,509	3,940	14,396	12,746	26,724	500	1,028	9,518

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3531, Construction Machinery: New England—Maine, 3 (250-499); Vermont, 1 (20-99); Rhode Island, 2 (20-99); Connecticut, 4 (1-19); South Atlantic—Delaware, 2 (1-19); Maryland, 1 (100-249); Virginia, 6 (20-99); West Virginia, 2 (1-19); North Carolina, 5 (20-99); South Carolina, 2 (1-19); Georgia, 5 (749); Florida, 5 (20-99); East South Central—Kentucky, 2 (1-19); Tennessee, 5 (100-249); Alabama, 6 (379); Mississippi, 2 (100-249); West South Central—Arkansas, 1 (1-19); Louisiana, 2 (250-499); Oklahoma, 16 (1,397); Mountain—Montana, 1 (1-19); Idaho, 3 (20-99); Wyoming, 1 (1-19); Colorado, 9 (175); New Mexico, 1 (1-19); Utah, 3 (948); Nevada, 2 (1-19).

SIC 3532, Mining Machinery and Equipment: New England—Maine, 1 (20-99); New Hampshire, 1 (500-999); Massachusetts, 1 (1-19); Connecticut, 1 (20-99); Middle Atlantic—New York, 4 (20-99); New Jersey, 2 (500-999); East North Central—Indiana, 4 (155); Michigan, 6 (312); West North Central—Minnesota, 4 (100-249); Iowa, 4 (430); Kansas, 2 (250-499); South Atlantic—Virginia, 9 (100-249); North Carolina, 2 (20-99); East South Central—Kentucky, 5 (20-99); Tennessee, 1 (100-249); Alabama, 1 (20-99); West South Central—Oklahoma, 4 (20-99); Texas, 8 (20-99); Mountain—Idaho, 1 (1-19); New Mexico, 1 (1-19); Arizona, 1 (1-19); Utah, 3 (20-99); Pacific—Washington, 5 (20-99); Oregon, 4 (20-99).

SIC 3533, Oil Field Machinery: New England—Massachusetts, 2 (20-99); Connecticut, 1 (1-19); Middle Atlantic—New York, 2 (20-99); New Jersey, 2 (20-99); East North Central—Indiana, 4 (20-99); Illinois, 4 (174); Michigan, 3 (1-19); Wisconsin, 1 (20-99); West North Central—Minnesota, 2 (20-99); Iowa, 1 (1-19); Missouri, 1 (1-19); North Dakota, 1 (1-19); Kansas, 7 (399); South Atlantic—West Virginia, 4 (20-99); South Carolina, 1 (1-19); Florida, 1 (20-99); East South Central—Kentucky, 1 (1-19); Tennessee, 2 (1-19); Mississippi, 3 (250-499); West South Central—Arkansas, 3 (1-19); Mountain—Wyoming, 5 (1-19); Colorado, 2 (100-249); New Mexico, 4 (20-99); Utah, 2 (250-499); Pacific—Washington, 1 (20-99); California, 64 (2,500-4,999).

SIC 3534, Elevators and Moving Stairways: New England—Massachusetts, 6 (250-499); Rhode Island, 1 (1-19); Connecticut, 1 (20-99); Middle Atlantic—New York, 18 (2,500-4,999); New Jersey, 3 (2,500-4,999); East North Central—Illinois, 14 (727); Michigan, 5 (20-99); Wisconsin, 6 (197); West North Central—Iowa, 1 (1-19); Missouri, 4 (20-99); North Dakota, 1 (1-19); Kansas, 1 (1-19); South Atlantic—Maryland, 4 (359); Virginia, 2 (20-99); West Virginia, 1 (1-19); North Carolina, 1 (20-99); Georgia, 1 (100-249); Florida, 1 (20-99); East South Central—Kentucky, 3 (282); Tennessee, 1 (250-499); Alabama, 1 (1-19); Mississippi, 1 (20-99); West South Central—Texas, 2 (100-249); Mountain—Colorado, 1 (1-19); Arizona, 1 (1-19); Pacific—Washington, 3 (20-99); Oregon, 2 (20-99).

SIC 3535, Conveyors: New England—Rhode Island, 3 (20-99); Connecticut, 2 (1-19); West North Central—South Dakota, 2 (100-249); Nebraska, 5 (20-99); Kansas, 4 (373); South Atlantic—Maryland, 3 (20-99); Virginia, 3 (20-99); West Virginia, 3 (224); South Carolina, 3 (134); Georgia, 4 (232); Florida, 3 (20-99); East South Central—Tennessee, 4 (284); Alabama, 4 (100-249); Mississippi, 2 (100-249); West South Central—Arkansas, 5 (20-99); Oklahoma, 5 (20-99); Mountain—Idaho, 1 (20-99); Colorado, 8 (20-99); Utah, 1 (1-19); Pacific—Oregon, 5 (20-99).

SIC 3536, Hoists, Cranes and Monorails: New England—Massachusetts, 2 (20-99); Connecticut, 2 (20-99); East North Central—Indiana, 3 (20-99); Wisconsin, 5 (250-499); West North Central—Minnesota, 1 (100-249); Iowa, 5 (250-499); Kansas, 1 (1-19); South Atlantic—Florida, 1 (1-19); East South Central—Kentucky, 2 (20-99); Tennessee, 1 (100-249); Mississippi, 1 (1-19); West South Central—Arkansas, 1 (250-499); Oklahoma, 2 (20-99); Mountain—Colorado, 4 (20-99); Pacific—Oregon, 2 (20-99); California, 23 (250-499).

SIC 3537, Industrial Trucks and Tractors: New England—Massachusetts, 5 (769); Rhode Island, 1 (1-19); Connecticut, 4 (100-249); West North Central—Missouri, 9 (130); North Dakota, 1 (1-19); Kansas, 4 (20-99); South Atlantic—Maryland, 2 (1-19); Virginia, 1 (20-99); West Virginia, 1 (1-19); North Carolina, 3 (20-99); South Carolina, 2 (20-99); Florida, 6 (20-99); East South Central—Kentucky, 3 (20-99); Alabama, 5 (20-99); Mississippi, 1 (250-499); West South Central—Arkansas, 2 (1-19); Louisiana, 1 (1-19); Oklahoma, 2 (20-99); Mountain—Montana, 1 (1-19); Idaho, 1 (1-19); Colorado, 1 (1-19); Utah, 1 (1-19); Pacific—Washington, 1 (20-99); Hawaii, 1 (1-19).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

TABLE 3. Detailed Statistics: 1963

Item	Construction machinery (SIC 3531)	Mining machinery and equipment (SIC 3532)	Oil field machinery (SIC 3533)	Elevators and moving stairways (SIC 3534)	Conveyors (SIC 3535)	Hoists, cranes, and monorails (SIC 3536)	Industrial trucks and tractors (SIC 3537)
Primary product specialization ratio <sup>1</sup> .....	.91	.75	.90	.97	.82	.80	.90
Coverage ratio <sup>2</sup> .....	.89	.82	.91	.95	.83	.70	.81
Establishments, total.....number..	617	204	408	142	454	120	314
With 1 to 19 employees.....do....	312	111	232	68	279	64	206
With 20 to 99 employees.....do....	160	60	110	50	122	36	82
With 100 employees or more.....do....	145	33	66	24	53	20	26
Proprietors and working partners.....do....	169	62	137	34	160	16	116
All employees (average for the year).....do....	104,520	16,910	29,203	12,393	20,778	9,585	17,570
Payroll (all employees), total for year.....\$1,000..	683,728	109,531	184,288	88,389	140,617	64,301	110,444
Production workers:							
Average for the year.....number..	76,526	11,814	20,114	7,427	12,642	6,776	11,454
March.....do....	74,152	11,404	19,924	7,301	11,929	6,435	11,136
May.....do....	76,445	11,410	20,014	7,489	12,507	6,650	11,245
August.....do....	77,545	11,993	20,275	7,392	13,412	6,852	11,603
November.....do....	77,850	12,442	20,246	7,528	12,735	7,161	11,845
Man-hours.....1,000..	155,267	23,289	41,409	15,458	26,312	13,980	23,815
January-March.....do....	37,657	5,658	10,346	3,757	6,122	3,270	5,789
April-June.....do....	39,393	5,741	10,279	3,959	6,753	3,465	5,893
July-September.....do....	37,844	5,731	10,340	3,696	6,973	3,409	5,954
October-December.....do....	40,450	6,190	10,510	4,082	6,640	3,874	6,282
Wages.....\$1,000..	462,411	67,669	113,526	49,634	74,020	41,433	64,476
Cost of materials, etc., total.....do....	1,403,162	203,786	264,350	114,684	231,080	110,949	215,499
Materials, parts, containers, and supplies consumed.....do....	1,284,321	166,460	216,441	108,235	173,961	101,430	192,548
Cost of resales.....do....	73,238	28,690	35,176	3,849	45,245	6,045	14,919
Fuels consumed.....do....	8,296	1,513	1,740	597	1,191	648	876
Electric energy:							
Purchased:							
Quantity.....million kw.-hrs..	1,203	139	326	66	110	67	130
Cost.....\$1,000..	14,119	2,103	3,835	1,035	1,827	957	1,647
Generated less sold.....million kw.-hrs..	(D)	(D)	-	(D)	(D)	(D)	(D)
Contract work.....\$1,000..	23,188	5,021	7,104	968	8,856	1,869	5,509
Value of shipments (including resales), total.....do....	2,696,039	417,616	666,532	318,616	494,632	220,015	446,957
Value of resales.....do....	101,167	36,368	45,960	4,462	53,677	7,338	22,981
Value added by manufacture, adjusted.....do....	1,301,266	215,406	398,152	201,527	270,475	112,327	233,116
Manufacturers' inventories:							
Beginning of year, total.....do....	649,567	107,869	182,378	70,965	71,444	39,320	91,258
Finished products.....do....	194,843	43,686	92,755	23,981	17,241	6,519	27,828
Work-in-process.....do....	243,490	33,895	40,827	17,883	23,528	16,417	33,263
Materials, supplies, fuel, etc.....do....	211,234	30,288	48,797	29,101	30,675	16,384	30,167
End of year, total.....do....	671,574	109,415	176,761	65,980	79,282	45,367	97,581
Finished products.....do....	191,078	43,026	94,865	21,616	18,071	7,207	28,355
Work-in-process.....do....	256,104	36,132	34,437	17,843	29,621	18,990	34,394
Materials, supplies, fuel, etc.....do....	224,392	30,257	47,459	26,521	31,590	19,170	34,832
Expenditures for plant and equipment, total.....do....	58,903	7,611	13,270	3,601	6,953	2,791	6,993
New, total.....do....	56,227	6,847	11,321	3,315	6,125	2,644	6,696
New structures and additions to plant.....do....	10,753	1,307	2,267	880	1,586	665	1,860
New machinery and equipment.....do....	45,474	5,549	9,054	2,435	4,539	1,979	4,836
Used plant and equipment.....do....	2,676	764	1,949	286	828	147	297
Selected operating ratios:							
Payroll/Total employment.....	6,542	6,477	6,311	7,132	6,768	6,709	6,286
Production workers/Total employment.....	.73	.70	.69	.60	.61	.71	.65
Man-hours/Production workers.....	2,029	1,966	2,058	2,081	2,081	2,063	2,079
Production worker wages/Man-hours.....	2.98	2.91	2.74	3.21	2.81	2.96	2.71
Cost of materials and payrolls/Total value of shipments....	.77	.75	.67	.64	.75	.80	.73
Cost of materials/Total value of shipments.....	.52	.48	.40	.36	.47	.50	.48
Adjusted value added/Total employment.....	12,449	27,384	13,633	16,261	13,017	11,719	13,268
Salaries and wages/Adjusted value added.....	.53	.51	.46	.44	.52	.57	.47

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3531.—CONSTRUCTION MACHINERY											
Establishments.....number..	617	148	76	88	94	66	69	30	28	11	7
All employees:											
Total.....do.....	104,520	219	501	1,216	3,004	4,717	11,682	10,365	21,082	15,935	35,799
Payroll.....\$1,000..	683,728	1,611	2,993	7,391	18,259	29,151	73,914	63,528	136,178	107,996	242,707
Value added, adjusted.....do...	1,301,266	2,811	4,801	14,202	33,741	54,598	134,415	116,206	302,784	138,207	499,501
Value of shipments.....do....	2,696,039	7,053	10,442	27,600	74,119	112,081	283,059	268,724	613,153	359,392	940,416
Capital expenditures, new...do....	56,227	134	189	490	1,778	2,375	5,678	5,750	8,998	7,749	23,086
INDUSTRY 3532.—MINING MACHINERY AND EQUIPMENT											
Establishments.....number..	204	57	23	31	40	20	18	7	7	1	-
All employees:											
Total.....do.....	16,910	95	158	440	1,325	1,385	2,979	2,577	7,951	(D)	-
Payroll.....\$1,000..	109,531	692	996	2,800	8,223	8,548	18,884	16,307	53,081	(D)	-
Value added, adjusted.....do...	215,406	1,260	1,838	5,585	15,904	21,436	38,852	26,538	103,993	(D)	-
Value of shipments.....do....	417,616	2,589	2,998	10,755	30,510	35,285	72,656	57,135	205,688	(D)	-
Capital expenditures, new...do....	6,847	39	53	148	532	682	1,537	514	3,342	(D)	-
INDUSTRY 3533.—OIL FIELD MACHINERY											
Establishments.....number..	408	122	50	60	68	42	36	22	5	2	1
All employees:											
Total.....do.....	29,203	164	345	803	2,056	2,902	5,890	8,304	3,595	5,144	(D)
Payroll.....\$1,000..	184,288	1,010	1,970	4,682	13,314	17,621	37,087	51,694	22,002	34,908	(D)
Value added, adjusted.....do...	398,152	2,295	4,241	12,474	27,138	38,113	75,062	114,348	44,175	80,306	(D)
Value of shipments.....do....	666,532	3,916	7,864	18,450	49,895	63,899	144,571	189,547	76,319	112,071	(D)
Capital expenditures, new...do....	11,321	152	152	316	973	1,324	2,666	3,064	1,440	1,234	(D)
INDUSTRY 3534.—ELEVATORS AND MOVING STAIRWAYS											
Establishments.....number..	142	28	23	17	33	17	13	7	1	3	-
All employees:											
Total.....do.....	12,393	41	160	247	1,007	1,146	2,016	7,776	(D)	(D)	-
Payroll.....\$1,000..	88,389	323	1,076	1,734	7,101	7,823	13,064	57,268	(D)	(D)	-
Value added, adjusted.....do...	201,527	705	1,977	3,201	14,318	15,756	23,754	141,816	(D)	(D)	-
Value of shipments.....do....	318,616	1,360	3,556	5,239	25,737	25,094	43,489	214,141	(D)	(D)	-
Capital expenditures, new...do....	3,315	103	58	58	256	424	382	2,034	(D)	(D)	-
INDUSTRY 3535.—CONVEYORS											
Establishments.....number..	454	2143	65	71	88	34	33	13	7	-	-
All employees:											
Total.....do.....	20,778	279	470	988	2,742	2,227	4,866	4,796	4,410	-	-
Payroll.....\$1,000..	140,617	1,581	2,712	5,970	17,470	14,492	31,382	36,945	30,065	-	-
Value added, adjusted.....do...	270,475	2,984	5,650	10,555	29,518	26,066	65,778	69,388	60,536	-	-
Value of shipments.....do....	494,632	5,616	10,599	19,084	56,715	51,469	128,254	115,877	107,018	-	-
Capital expenditures, new...do....	6,125	149	178	413	997	834	1,721	1,079	754	-	-
INDUSTRY 3536.—HOISTS, CRANES, AND MONORAILS											
Establishments.....number..	120	25	19	20	23	13	9	6	4	1	-
All employees:											
Total.....do.....	9,585	30	129	295	783	852	1,657	2,114	3,725	(D)	-
Payroll.....\$1,000..	64,301	204	819	2,103	4,907	5,702	11,380	12,349	26,837	(D)	-
Value added, adjusted.....do...	112,327	278	1,639	3,273	9,664	9,557	20,219	25,594	42,103	(D)	-
Value of shipments.....do....	220,015	607	2,805	6,496	18,005	18,485	41,930	43,102	88,585	(D)	-
Capital expenditures, new...do....	2,644	11	48	62	160	318	451	811	783	(D)	-
INDUSTRY 3537.—INDUSTRIAL TRUCKS AND TRACTORS											
Establishments.....number..	314	95	51*	60	54	28	12	6	5	3	-
All employees:											
Total.....do.....	17,570	163	348	814	1,794	1,896	1,975	1,866	3,621	5,093	-
Payroll.....\$1,000..	110,444	792	1,495	4,680	9,515	10,449	12,025	10,636	23,626	37,226	-
Value added, adjusted.....do...	233,116	1,574	3,604	7,801	18,722	20,592	22,683	28,619	52,270	77,251	-
Value of shipments.....do....	446,957	3,777	6,904	16,441	36,575	40,963	49,456	46,034	95,808	150,999	-
Capital expenditures, new...do....	6,696	143	184	349	644	905	411	702	1,225	2,133	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

<sup>1</sup>Includes capital expenditures for plants under construction but not in operation which constitute \$50-\$100 thousand of the total for the size class.<sup>2</sup>Includes capital expenditures for plants under construction but not in operation which constitute \$20-\$50 thousand of the total for the size class.

**TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B+C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3531	Construction machinery.....1963..	2,696,039	2,332,119	229,425	134,495	91	2,624,171	2,332,119	292,052	89
	.....1958..	2,107,352	1,802,123	226,247	78,982	89	1,996,322	1,802,123	194,199	90
3532	Mining machinery and equipment...1963..	417,616	274,380	91,841	51,395	75	336,213	274,380	61,833	82
	.....1958..	342,035	215,050	83,780	43,205	72	275,289	215,050	60,239	78
3533	Oil field machinery.....1963..	666,532	518,739	59,489	88,304	90	572,726	518,739	53,987	91
	.....1958..	585,268	467,886	41,427	75,955	92	496,149	467,886	28,263	94
3534	Elevators and moving stairways...1963..	318,616	235,080	8,485	75,051	97	248,209	235,080	13,129	95
	.....1958..	192,806	132,362	4,658	55,786	97	165,277	132,362	32,915	80
3535	Conveyors.....1963..	494,632	342,496	77,854	74,282	82	414,854	342,496	72,358	83
	.....1958..	385,714	260,700	59,597	65,417	81	333,877	260,700	73,177	78
3536	Hoists, cranes, and monorails....1963..	220,015	157,229	40,142	22,644	80	224,183	157,229	66,954	70
	.....1958..	184,722	128,355	35,143	21,224	79	165,544	128,355	37,189	78
3537	Industrial trucks and tractors...1963..	446,957	370,265	43,260	33,432	90	458,741	370,265	88,476	81
	.....1958..	269,328	231,445	18,176	19,707	93	276,674	231,445	45,229	84

NOTE: See Introduction for an explanation of terms used.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)

miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Construction machinery (SIC 3531)	Other industries
<b>CONSTRUCTION MACHINERY INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	2,696,039	(X)
	Primary products, total.....	2,624,171	2,332,119	292,052
35311	Contractors' off-highway wheel tractors, except parts and attachments.....	102,660	97,067	<sup>1</sup> 5,593
35312	Tracklaying type tractors, except parts and attachments.....	317,352	298,427	<sup>1</sup> 18,925
35313	Parts and attachments for tracklaying and contractors off-highway wheel tractors	302,732	245,520	<sup>2</sup> 57,212
35314	Power cranes (including locomotive, full-circle, revolving with booms) draglines, shovels, and parts.....	464,757	440,646	<sup>3</sup> 24,111
35316	Mixers, pavers and related equipment, excluding parts.....	132,020	114,812	<sup>4</sup> 17,208
35317	Integral tractor-shovel loaders, (wheel and tracklaying types) including parts.	387,988	365,939	<sup>1</sup> 22,049
35318	Scrapers, graders, rollers, and off-highway truck, trailers, and wagons, excluding parts.....	479,986	430,604	<sup>5</sup> 49,382
35319	Other construction machinery and equipment, including construction machinery parts, n.e.c.....	403,511	307,803	<sup>6</sup> 95,708
35310	Construction machinery, n.s.k.....	33,165	31,301	1,864
	Secondary products, total.....	(X)	229,425	(X)
33230	Steel castings.....	(X)	7,969	(X)
3441-	Fabricated structural steel.....	(X)	4,139	(X)
3443-	Boiler shop products.....	(X)	7,711	(X)
3522-	Farm machinery and equipment.....	(X)	20,204	(X)
3532-	Mining machinery and equipment.....	(X)	13,446	(X)
3535-	Conveyors.....	(X)	9,290	(X)
35370	Industrial trucks and tractors.....	(X)	7,786	(X)
3551-	Food products machinery.....	(X)	3,018	(X)
3559-	Special industry machines, n.e.c.....	(X)	2,226	(X)
3561-	Pumps and compressors.....	(X)	4,660	(X)
3566-	Power transmission equipment.....	(X)	2,398	(X)
35690	General industry machinery, n.e.c.....	(X)	2,054	(X)
37130	Truck and bus bodies.....	(X)	9,258	(X)
3717-	Motor vehicles and parts.....	(X)	15,359	(X)
	Other secondary products.....	(X)	<sup>7</sup> 119,907	(X)
	Miscellaneous receipts, total.....	(X)	134,495	(X)
	Contract and commission work.....	(X)	18,578	(X)
	Sales of products bought and resold.....	(X)	101,167	(X)
	Receipts for repair work.....	(X)	5,599	(X)
	Receipts for installation of products.....	(X)	1,455	(X)
	Other miscellaneous receipts.....	(X)	7,696	(X)
<b>MINING MACHINERY AND EQUIPMENT INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	417,616	(X)
	Primary products, total.....	336,213	274,380	13,448
35321	Underground mining machinery and related mining equipment.....	73,573	65,228	3,269
35322	Crushing, pulverizing, and screening plants stationary.....	58,012	41,244	(D)
35323	All other mining machinery (complete units).....	39,331	28,271	(D)
35324	Parts and attachments for mining machinery and equipment.....	158,014	132,529	5,231
35320	Mining machinery and equipment, n.s.k.....	7,283	7,108	(D)
	Secondary products, total.....	(X)	91,841	(X)
35351	Conveyors and conveying equipment, (except hoists and farm elevators).....	(X)	5,680	(X)
35361	Hoists.....	(X)	3,211	(X)
	Other secondary products.....	(X)	<sup>9</sup> 82,950	(X)
	Miscellaneous receipts, total.....	(X)	51,395	(X)
	Contract and commission work.....	(X)	5,243	(X)
	Sales of products bought and resold.....	(X)	36,368	(X)
	Scrap and salable refuse.....	(X)	559	(X)
	Other.....	(X)	9,225	(X)

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Oil field machinery (SIC 3533)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Conveyors (SIC 3535)	Other industries
OIL FIELD MACHINERY INDUSTRY					CONVEYORS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	666,532	(X)		Total shipments and receipts of the industry.....	(X)	494,632	(X)
	Primary products, total.....	572,726	518,739	53,987		Primary products, total.....	414,854	342,496	72,358
35331	Rotary oil and gas field drilling machinery and equipment.....	217,238	212,139	5,099	35351	Conveyors and conveying equipment (except hoists and farm elevators).....	306,236	257,565	<sup>15</sup> 48,671
35332	Other oil and gas field drilling machinery and equipment.....	38,849	33,959	<sup>10</sup> 4,890	35352	Parts, attachments, and accessories for conveyors and systems (sold separately).....	87,963	64,891	<sup>16</sup> 23,072
35333	Oil and gas field production machinery and equipment (except pumps).....	261,453	227,875	<sup>11</sup> 33,578	35350	Conveyors and conveying equipment (except hoists), n.s.k.....	20,655	20,040	615
35334	Other oil and gas field machinery and tools (except pumps), including water wells.....	43,290	32,973	<sup>4</sup> 10,317		Secondary products, total.....	(X)	77,854	(X)
35330	Oil field machinery and equipment, n.s.k.....	11,896	11,793	103	35322	Crushing, pulverizing and screening plants, stationary.....	(X)	2,558	(X)
	Secondary products, total.....	(X)	59,489	(X)	35595	Other special industry machinery and equipment.....	(X)	5,223	(X)
34941	Metal valves for piping systems (except plumbing and heating valves).....	(X)	4,868	(X)	35690	General industrial machinery, n.e.c.....	(X)	5,849	(X)
3531-	Construction machinery.....	(X)	5,289	(X)		Other secondary products.....	(X)	<sup>17</sup> 64,224	(X)
3561-	Pumps and compressors.....	(X)	11,241	(X)		Miscellaneous receipts, total.....	(X)	74,282	(X)
	Other secondary products.....	(X)	<sup>12</sup> 38,091	(X)		Contract work.....	(X)	1,598	(X)
	Miscellaneous receipts, total.....	(X)	88,304	(X)		Sales of products bought and resold.....	(X)	53,677	(X)
	Contract work.....	(X)	21,126	(X)		Receipts for installation.....	(X)	15,072	(X)
	Sales of products bought and resold.....	(X)	45,960	(X)		Other miscellaneous receipts.....	(X)	3,935	(X)
	Receipts for repair work.....	(X)	9,754	(X)			All industries	Hoists, cranes, and monorails (SIC 3536)	Other industries
	Other miscellaneous receipts.....	(X)	11,464	(X)					
ELEVATORS AND MOVING STAIRWAYS INDUSTRY					HOISTS, CRANES, AND MONORAILS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	318,616	(X)		Total shipments and receipts of the industry.....	(X)	220,015	(X)
	Elevators and moving stairways.....	248,209	235,080	<sup>13</sup> 13,129		Primary products, total.....	224,183	157,229	66,954
	Secondary products.....	(X)	<sup>14</sup> 8,485	(X)	35361	Hoists.....	104,978	64,709	<sup>18</sup> 40,269
	Miscellaneous receipts, total.....	(X)	75,051	(X)	35362	Overhead traveling cranes and monorail systems.....	115,701	89,059	<sup>19</sup> 26,642
35340	Contract work.....	(X)	765	(X)	35360	Hoists, cranes, and monorails, n.s.k.....	3,504	3,461	43
	Receipts for installation.....	(X)	45,709	(X)		Secondary products, total.....	(X)	40,142	(X)
	Receipts for repair work.....	(X)	20,246	(X)	3531-	Construction machinery.....	(X)	6,660	(X)
	Sales of products bought and resold.....	(X)	4,462	(X)		Other secondary products.....	(X)	<sup>20</sup> 33,482	(X)
	Other miscellaneous receipts.....	(X)	3,869	(X)		Miscellaneous receipts, total.....	(X)	22,644	(X)
						Contract work.....	(X)	1,690	(X)
						Sales of products bought and resold.....	(X)	7,338	(X)
						Receipts for repair work.....	(X)	12,052	(X)
						Other miscellaneous receipts.....	(X)	1,564	(X)

See footnotes at end of table.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Industrial trucks and tractors (SIC 3537)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Industrial trucks and tractors (SIC 3537)	Other industries
	INDUSTRIAL TRUCKS AND TRACTORS INDUSTRY					INDUSTRIAL TRUCKS AND TRACTORS INDUSTRY—Continued			
	Total shipments and receipts of the industry.....	(X)	446,957	(X)		Miscellaneous receipts, total.....	(X)	33,432	(X)
35370	Industrial trucks and tractors.....	458,741	370,265	<sup>21</sup> 88,476		Contract work.....	(X)	1,941	(X)
	Secondary products.....	(X)	43,260	(X)		Sales of products bought and resold.....	(X)	22,981	(X)
34295	Other hardware.....	(X)	5,841	(X)		Receipts for repair work.....	(X)	4,372	(X)
	Other secondary products.....	(X)	<sup>22</sup> 37,419	(X)		Other miscellaneous receipts.....	(X)	4,138	(X)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Industry 3522, Farm Machinery and Equipment, had shipments which totaled \$2 million or more but is withheld to avoid disclosing figures for individual companies.

<sup>2</sup>Includes \$11.1 million shipped by industry 3522, Farm Machinery and Equipment, and \$5.7 million by industry 3537, Industrial Trucks and Tractors. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3321, Gray Iron Foundries; 3519, Internal Combustion Engines; and 3717, Motor Vehicles and Parts.

<sup>3</sup>Includes \$8.2 million shipped by industry 3731, Ship Building and Repairing. In addition, the following industry had shipments which totaled \$2 million or more but is withheld to avoid disclosing figures for individual companies: 3717, Motor Vehicles and Parts.

<sup>4</sup>Industry 3561, Pumps and Compressors, had shipments which totaled \$2 million or more but is withheld to avoid disclosing figures for individual companies.

<sup>5</sup>Includes \$26.1 million shipped by industry 3522, Farm Machinery and Equipment, and \$13.5 million by industry 3717, Motor Vehicles and Parts. In addition, the following industry had shipments which totaled \$2 million or more but is withheld to avoid disclosing figures for individual companies: 3537, Industrial Trucks and Tractors.

<sup>6</sup>Includes \$10.9 million shipped by industry 3522, Farm Machinery and Equipment; \$31.4 million by industry 3532, Mining Machinery and Equipment; \$4 million by industry 3533, Oil Field Machinery; \$5.1 million by industry 3536, Hoists, Cranes, and Monorails; \$2.9 million by industry 3561, Pumps and Compressors; and \$5.3 million by industry 3717, Motor Vehicles and Parts. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3537, Industrial Trucks and Tractors, and 3742, Railroad and Street Cars.

<sup>7</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing figures for individual companies: 33911, Drop, upset and press steel forgings (closed die); 34336, Other heating equipment (except electric) and parts for nonelectric heating equipment; 34493, Miscellaneous metal building materials and curtain wall; 35192, Diesel and semidiesel engines; 35197, Parts and accessories for internal combustion engines; 35333, Oil and gas field production machinery and equipment (except pumps); 35334, Other oil and gas field machinery and tools (except pumps), including water wells; 35419, Parts for metal cutting type machine tools sold separately, and rebuilt machine tools; 35522, Parts and attachments for textile machinery; 35531, Woodworking machinery (except machinery designed primarily for home workshops, garages, and service shops), including parts, attachments, and accessories; and 37150, Truck trailers.

<sup>8</sup>Includes \$8 million shipped by industry 3545, Machine Tool Accessories. In addition, the following industry has shipments which totaled \$2 million or more but is withheld to avoid disclosing figures for individual companies: 3533, Oil Field Machinery.

<sup>9</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing figures for individual companies: 34814, Ferrous wire cloth and other woven ferrous wire products not produced by wire drainers; 35197, Parts and accessories for internal combustion engines; 35362, Overhead traveling cranes and monorail systems; 35513, Other industrial food products machinery, including parts and attachments for all types of industrial food products machinery; 35595, Other special industry machinery and equipment; 35663, Other mechanical power transmission equipment; 35690, General industrial machinery, n.e.c.; 36214, Prime mover generator sets, except steam or hydraulic turbine.

<sup>10</sup>Includes shipments of \$2 million by industry 3561, Pumps and Compressors. In addition, industry 3494, Valves and Pipe Fittings had shipments of \$2 million or more but is withheld to avoid disclosing figures for individual companies.

<sup>11</sup>Includes \$7.2 million shipped by industry 3561, Pumps and Compressors. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3312, Blast Furnaces and Steel Mills; 3392, Nonferrous Forgings; 3531, Construction Machinery; and 3586, Measuring and Dispensing Pumps.

<sup>12</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing figures for individual companies: 19110, Guns, howitzers, and mortars and related equipment over 30 mm (or over 1.8 inches); 35324, Parts and attachments for mining machinery; 35662, Speed changers, industrial high speed drives and gears; and 37292, Guided missile components and subassemblies, n.e.c.

<sup>13</sup>Includes shipments of over \$2 million but is withheld to avoid disclosing figures for individual companies by industry 3442, Metal Doors, Sash, and Trim.

<sup>14</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing figures for individual companies: 35690, General industrial machinery, n.e.c.; and 39492, Other sporting and athletic goods.

<sup>15</sup>Includes \$2.5 million shipped by industry 2542, Metal Partitions and Fixtures; \$8.2 million by industry 3531, Construction Machinery; \$5.7 million by industry 3532, Mining Machinery and Equipment; and \$2.1 million by industry 3551, Food Products Machinery. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3562, Ball and Roller Bearings; 3566, Power Transmission Equipment; and 3713, Truck and Bus Bodies.

<sup>16</sup>Includes \$16.6 million shipped by industry 3566, Power Transmission and Equipment.

<sup>17</sup>Includes \$2 million or more of the following product classes but are withheld to avoid disclosing figures of individual companies: 34295, Other hardware; 34411, Fabricated structural iron and steel for buildings; and 34460, Architectural and ornamental metal work (except curtain wall and other exterior panels).

<sup>18</sup>Includes \$12.1 million shipped by industry 3531, Construction Machinery; \$3.2 million by industry 3532, Mining Machinery and Equipment. In addition, the following industries shipped \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3423, Hand and Edge Tools; 3441, Fabricated Structural Steel; 3548, Metalworking Machinery, N.E.C.; and 3621, Motors and Generators.

<sup>19</sup>The following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3531, Construction Machinery, and 3532, Mining Machinery and Equipment.

<sup>20</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing figures for individual companies: 35370, Industrial trucks and tractors; 35591, Chemical manufacturing industries machinery and equipment; and 37292, Guided missile components and subassemblies, n.e.c.

<sup>21</sup>Includes \$7.8 million shipped by industry 3531, Construction Machinery, and \$25.8 million shipped by industry 3717, Motor Vehicles and Parts. In addition, the following industries shipped \$2 million or more but are withheld to avoid disclosing figures of individual companies: 3481, Fabricated Wire Products, N.E.C.; 3519, Internal Combustion Engines; 3522, Farm Machinery and Equipment; 3536, Hoists, Cranes, and Monorails; 3566, Power Transmission Equipment; and 3599, Miscellaneous Machinery.

<sup>22</sup>Includes the following product classes with shipments of \$2 million or more but are withheld to avoid disclosing figures of individual companies: 34313, Parts and attachments for tracklaying and contractors' off-highway wheel tractors; 35318, Scrapers, graders, rollers, and off-highway trucks, trailers, and wagons, excluding parts; 35319, Other construction machinery and equipment, including construction machinery parts, n.e.c.; 37130, Truck and bus bodies for sale separately (including those made on purchased chassis); and 37175, Parts and accessories for passenger cars, trucks, and buses shipped to motor vehicle manufacturers.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3531- --	CONSTRUCTION MACHINERY AND EQUIPMENT, TOTAL.....	(X)	2,624,171	(X)	1,996,322
35311 --	Contractors' off-highway wheel tractors, except parts and attachments:				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	102,660	(X)	89,956
	As reported on Census Annual Form MA-35D <sup>1</sup> .....	(X)	101,024	(X)	85,480
	Complete tractors:				
	By number of wheels: <sup>2</sup>				
	2-wheel:				
35311 03-07	Under 299 maximum engine hp.....	1,748	33,191	2,824	57,828
35311 09	300-399 maximum engine hp.....	132	4,108		
35311 11	400 maximum engine hp. and over.....	1,243	42,567		
	4-wheel:				
35311 13	Under 125 maximum engine hp.....	186	1,615	1,264	27,652
35311 15-21	125 maximum engine hp. and over.....	287	10,365		
	By horsepower rating: <sup>2</sup>				
35311 03, 13	Under 125 maximum engine hp.....	195	1,628	4,088	85,480
35311 05, 15	125-199 maximum engine hp.....	751	13,595		
35311 07, 17	200-299 maximum engine hp.....	1,086	22,326		
35311 09, 19	300-399 maximum engine hp.....	140	4,396		
35311 11, 21	400 maximum engine hp. and over.....	1,424	49,901		
35311 31	Rubber tired dozers (125 maximum engine hp. and over) <sup>3</sup> .....	254	9,178	(NA)	(NA)
35312 --	Tracklaying type tractors, except parts and attachments: <sup>4</sup>				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	317,352	(X)	287,300
	As reported on Census Annual Form MA-35T <sup>1</sup> .....	(X)	314,075	(X)	266,570
	20-44 net engine hp.....	4,627	14,919	28,450	266,570
	45-59 net engine hp.....	1,974	9,988		
	60-89 net engine hp.....	3,337	26,552		
	90-129 net engine hp.....	4,748	62,650		
	130-199 net engine hp.....	3,370	65,320		
	200-299 net engine hp.....	4,511	98,949		
	300 net engine hp. and over.....	906	35,697		
35313 --	Parts and attachments for tracklaying and contractors' off-highway wheel tractors, total.....	(X)	302,732	(X)	272,072
35313 13	parts (for replacement and repair) and attachments for tracklaying tractors:				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	216,950	(X)	(NA)
	As reported on Census Form MA-35T <sup>1</sup> .....	(X)	216,916	(X)	223,403
	Attachments.....	(X)	12,207	(X)	23,759
	Parts.....	(X)	204,709	(X)	199,644
35313 61	Parts sold to other plants producing tracklaying tractors and contractors' off-highway type wheel tractors.....	(X)	48,175	(X)	26,319
35313 65	Parts (for replacement and repair) and attachments for contractors' off-highway type wheel tractors:				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	37,607	(X)	(NA)
	As reported on Census Form M35D or MA-35D <sup>1</sup> .....	(X)	(S)	(X)	35,360
	Attachments.....	(X)	(S)	(X)	2,595
	Parts.....	(X)	(S)	(X)	32,765
35314 --	Power cranes (including locomotive, full circle, revolving with booms), draglines, shovels and parts.....	(X)	464,757	(X)	361,068
35314 11	Cranes (except construction power cranes), locomotive, full circle revolving with booms, and other types:				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	20,928	(X)	(NA)
	As reported on Census Form M35D or MA-35D <sup>1</sup> .....	453	19,187	(X)	<sup>5</sup> 23,982
35314 03	Locomotive (except wrecking).....	47	3,662	36	2,656
35314 05	Full circle revolving with booms (such as whirleys and hammerheads)	156	8,757	(X)	( <sup>5</sup> )
35314 07	Other cranes, including locomotive wrecking.....	250	6,768	(X)	( <sup>5</sup> )

See footnotes at end of table.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3531- --	CONSTRUCTION MACHINERY AND EQUIPMENT—Continued				
35314 --	Power cranes (including locomotive, full circle, revolving with booms) dragline, shovels and parts—Continued				
	Power cranes, draglines and shovels, including mine shovels, but not including equipment for mounting on tractors:				
35314 21	As reported in the census of manufactures <sup>1</sup> .....	(X)	307,273	(X)	(NA)
	As reported on Census Form M35D or MA-35D <sup>1</sup> .....	(X)	289,281	(X)	216,458
	Crawler mounted, rated shovel capacity:				
35314 11, 13, 15 }	Under 3/4 cubic yard.....	412	7,155	2,273	41,830
35314 17	3/4 cubic yard.....	714	18,794		
35314 18	1 cubic yard.....	507	18,203	708	22,456
35314 19	1-1/4 cubic yards.....	171	7,183	70	2,532
35314 20	1-1/2 cubic yards.....	230	12,282	309	13,922
35314 22	1-3/4 cubic yards.....	22	1,559	45	2,078
35314 24	2 cubic yards.....			67	3,451
35314 25	2-1/2 cubic yards.....	180	13,918	269	18,914
35314 27	Over 2-1/2 cubic yards up to and including 5-1/2 cubic yards.....	309	40,328	307	41,231
35314 28	Over 5-1/2 cubic yards up to and including 10 cubic yards.....	50	15,492		
35314 29	Over 10 cubic yards.....	18	18,580		
	Rubber tired cranes (truck or wheel mounted), maximum working load:				
35314 32	Up to and including 10 tons.....	1,577	14,316	1,224	10,220
35314 34	Over 10 up to and including 15 tons.....	1,050	21,552	313	7,333
35314 36	Over 15 up to and including 20 tons.....	156	4,325	516	18,622
35314 38	Over 20 up to and including 25 tons.....	255	8,484	200	7,062
35314 40	Over 25 up to and including 30 tons.....	256	10,531	78	3,502
35314 42	Over 30 up to and including 35 tons.....	178	8,870	154	8,176
35314 44	Over 35 up to and including 45 tons.....	182	11,090	52	2,890
35314 46	Over 45 up to and including 60 tons.....	167	11,835	18	1,487
35314 48, 50 }	Over 60 tons.....	156	16,240		
35314 51	Walking draglines and walking cranes.....	20	28,544	22	10,752
35314 81	Front end attachments, buckets, grapples, slings, etc., for power cranes, draglines, and shovels (sold separately).....	(X)	15,129	(X)	18,486
35314 85	Parts for power cranes, draglines, and shovels.....	(X)	116,801	(X)	95,391
35314 00	Power cranes, draglines, and shovels and parts, n.s.k.....	(X)	4,626	(X)	-
35316 --	Mixers, pavers, and related equipment, excluding parts, total.....	(X)	132,020	(X)	101,908
	Concrete:				
35316 12	Mixers, portable under 3-1/2 cubic feet capacity (except plaster and mortar), hand or power operated.....	23,569	1,347	18,680	1,403
	Mixers, portable, 3-1/2 cubic feet and over (except plaster and mortar):				
35316 22	As reported in the census of manufactures <sup>1</sup> .....	(X)	32,477	(X)	(X)
	As reported on Census Form M35D or MA-35D <sup>1</sup> .....	(X)	33,053	(X)	32,552
35316 31	Truck mixer or agitator.....	4,944	24,951	5,740	24,071
35316 35	Other.....	11,299	8,102	11,638	8,481
35316 31	Mixers, plaster and mortar.....	10,183	4,666	7,364	3,234
35316 34	Pavers, finishers and spreaders.....	10,162	19,913	1,510	8,451
	Batching plants, bin and batch (for concrete aggregate only and bulk cement:				
35316 37	As reported in the census of manufactures <sup>1</sup> .....	(X)	17,594	(X)	(NA)
	As reported on Census Form M35D or MA-35D <sup>1</sup> .....	940	16,041	1,086	15,025
35316 39	Concrete vibrators.....	22,287	4,595	(NA)	2,858
	Bituminous distributors, asphalt plants and other equipment:				
35316 40	As reported in the census of manufactures <sup>1</sup> .....	(X)	39,030	(X)	(NA)
	As reported on Census Form M35D or MA-35D <sup>1</sup> .....	(X)	38,683	(X)	43,494
35316 41	Distributors.....	942	5,757	785	3,403
35316 42	Bituminous asphalt plants:				
	Travel mix-type.....	32	517	(NA)	(NA)
	Central mixing plants (batch-type and continuous-type) (t.p.h. = tons per hour), total.....	282	23,688	431	35,778
35316 43	Less than 2,000 pound batch (less than 60 t.p.h.).....	88	1,498		
35316 44	2,000 pound-3,500 pound batch (60-119 t.p.h.).....	42	2,773		
35316 46	4,000 pound-5,500 pound batch (120-179 t.p.h.).....	82	9,300		
35316 48	6,000 pound batch and over (180 t.p.h. and over).....	70	10,117		
35316 49	Other (including portable mixers, heating kettles, heaters and circulators).....	3,185	8,721	3,305	4,313
35316 52	Other materials-aggregate spreaders and soil stabilization pavers.....	5,327	7,807	5,793	4,364
35316 00	Mixers, pavers and related equipment, n.s.k.....	(X)	4,591	(X)	3,767

See footnotes at end of table.

TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3531- --	CONSTRUCTION MACHINERY AND EQUIPMENT—Continued				
35317 --	Tractor-shovel loaders, total.....	(X)	387,988	(X)	<sup>6</sup> 142,890
	Wheel type:				
35317 10	As reported in the census of manufactures <sup>1</sup> .....	(X)	152,079	(X)	(NA)
	As reported on Census Form M35D or MA-35D <sup>1</sup> .....	(X)	153,310	(X)	69,977
	4-wheel drive:				
35317 04	1 cubic yard and under 1-1/2 cubic yards.....	2,542	21,446	6,657	69,977
35317 05	1-1/2 cubic yards and under 2 cubic yards.....	2,651	31,562		
35317 06	2 cubic yards and under 2-1/2 cubic yards.....	1,657	26,139		
35317 07	2-1/2 cubic yards and under 3-1/2 cubic yards.....	2,241	41,709		
35317 08	3-1/2 cubic yards and under 5 cubic yards.....	447	10,775		
35317 09	5 cubic yards and over.....	288	10,421		
35317 10, 12	2-wheel drive (all bucket capacities).....	2,354	11,258		
	Tracklaying type, 20 net engine hp. and over (including parts and attachments):				
35317 20	As reported in the census of manufactures <sup>1</sup> .....	(X)	217,664	(X)	(NA)
	As reported on Census Form MA-35T <sup>1</sup> .....	(X)	214,777	(X)	(NA)
	Complete tractors, total.....	11,503	140,155	7,741	87,912
35317 11	20-44 net engine hp.....	2,162	9,555	7,741	87,912
35317 13	45-59 net engine hp.....	2,733	22,511		
35317 15	60-89 net engine hp.....	1,626	19,533		
35317 17	90-129 net engine hp.....	3,415	53,663		
35317 19, 21	130-299 net engine hp.....	1,567	34,893		
	Attachments and parts, total.....	(X)	74,622	(X)	( <sup>6</sup> )
35317 51	Attachments.....	(X)	5,005	(X)	( <sup>6</sup> )
35317 61	Parts.....	(X)	69,617	(X)	( <sup>6</sup> )
35317 95	Parts and attachments for wheel-type tractor shovel loaders.....	(X)	18,245	(X)	( <sup>6</sup> )
35318 --	Scrapers, graders, compactors, rollers, and off-highway trucks, trailers, and wagons, and equipment for mounting on tracklaying or heavy duty wheel type tractors, excluding parts:				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	479,986	(X)	326,002
	As reported on Census Form M35D or MA-35D <sup>1</sup> .....	(X)	450,999	(X)	(NA)
	Scrapers, dig, carrying, and hauling (2- and 4-wheel) standard struck capacity: <sup>7</sup>				
35318 12	Under 7 cubic yards.....	746	732	( <sup>5</sup> )	( <sup>5</sup> )
35318 13	7 cubic yards and under 12 cubic yards.....	1,615	10,934	1,182	7,242
35318 14	12 cubic yards and under 18 cubic yards.....	970	14,298	1,206	12,045
35318 15	18 cubic yards and under 30 cubic yards.....	1,275	25,155	1,582	26,949
35318 16	30 cubic yards and over.....	351	12,160		
	Motor graders and light maintainers, total.....	7,771	102,459	6,852	82,016
35318 22, 23	Under 75 brake hp.....	1,131	5,657	1,049	5,375
35318 24	75-114 brake hp.....	879	10,496	944	10,836
35318 25	115-144 brake hp.....	4,854	68,968	4,859	65,805
35318 26	145 brake hp. and over.....	907	17,338		
	Rollers, self-propelled type:				
	Steel wheeled:				
35318 32, 33	3-wheeled and segmented.....	405	3,961	9,299	32,292
	Tandem, 2- and 3-axle:				
35318 34	Under 3 tons.....	975	1,143		
35318 35	3 tons to and including 4-1/2 tons.....	523	2,134		
35318 36	Above 4-1/2 tons to and including 7-1/2 tons.....	450	2,344		
35318 37	Above 7-1/2 tons.....	447	3,162		
35318 38	Pneumatic tire.....	1,041	8,806	9,299	32,292
35318 39	Sheepsfoot.....	95	2,328		
35318 41	All other types, vibratory, trench, etc.....	768	3,212		
	Rollers, towed:				
35318 42	Pneumatic tire (including vibratory).....	344	873		
	Sheepsfoot and bar type:				
35318 43	50" drum diameter and under.....	325	595		
35318 44	Above 50" drum diameter.....	286	1,320		
35318 45, 46	Vibratory, single steel drum.....	444	2,793		
35318 47, 48	Vibratory compactors, other than rollers.....	326	997		

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3531- --	CONSTRUCTION MACHINERY AND EQUIPMENT—Continued				
35318 --	Scrapers, graders, compactors, rollers, and off-highway trucks, trailers, and wagons, and equipment for mounting on tracklaying heavy duty wheel type tractors, excluding parts—Continued				
	Off-highway equipment: <sup>8</sup>				
	Off-highway rear dump earth, rock and ore load on back haulers:				
35318 56	Under 20 tons capacity.....	232	4,929	1,706	39,068
35318 57	20 tons to and including 30 tons capacity.....	557	20,096		
35318 58	Over 30 tons capacity.....	545	33,738		
	Truck-tractor type haulers and all other trucks:				
35318 61, 63	Under 60,000 pounds gross vehicle weight.....	969	19,866	(5)	(5)
35318 62, 64	60,000 pounds and over gross vehicle weight.....	1,141	18,585		
	Off-highway trailers and wagons (end, side, and bottom dump):				
35318 66	Under 12 cubic yards standard struck capacity.....	90	775	424	5,161
35318 67	12 and up to 18 cubic yards standard struck capacity.....				
35318 68	18 cubic yards standard struck capacity and over.....	241	6,449		
	Construction machinery for mounting on tractors:				
35318 71, 72, 73	Sidebooms or pipehandlers (all sizes).....	812	2,793	450	2,457
	Dozers (6' blade length and over):				
	Hydraulically operated:				
35318 74	For wheel tractors.....	328	950	551	559
35318 75	For crawler tractors.....	13,503	26,329	11,766	16,347
35318 76, 77	Cable operated.....	4,300	11,842	6,297	14,570
35318 79	Backhoes for wheel or tracklaying tractors, including shovel loaders	15,922	32,202	10,031	18,873
35318 81	All other backhoes.....	1,115	8,866		
35318 82	Front-end loaders (3/8 cubic yards and over) <sup>9</sup> .....	28,877	30,347		
35318 83	Logging arches.....	145	740	72	200
35318 84	Cranes.....			(5)	(5)
35318 85	Cable power control units.....	4,281	7,881	17,173	18,220
35318 87	Hydraulic power control units.....	12,675	12,966		
35318 86	Rippers and rooters, heavy-rear mounted.....	5,980	11,198		
35318 88, 89	Continuous ditching and trenching attachments for mounting on tractors, shovel loaders, or other prime movers.....	349	1,041	(NA)	(NA)
35319 --	Other construction machinery and equipment, including construction machinery parts, n.e.c., total.....	(X)	403,511	(X)	368,091
	Excavating and road construction and maintenance machinery, except shovels and cranes:				
35319 11	Dredging machinery, hydraulic and other types.....	(X)	14,186	(X)	10,668
	Self-propelled ditchers and trenchers, including ladder and wheel types:				
35319 15	As reported in the census of manufactures <sup>1</sup> .....	(X)	16,849	(X)	(NA)
	As reported on Census Form M35D or MA-35D <sup>1</sup> .....	4,410	16,811	1,486	8,155
	Ladder type:				
35319 16	Under 5,000 pounds gross weight.....	3,761	6,503	1,210	4,019
35319 17	5,000 pounds gross weight and over.....	290	4,000		
35319 18	Wheel type.....	359	6,308	286	4,136
35319 21	Railway maintenance of way equipment (rail layers, ballast spreaders, etc.), except rail cars.....	(X)	22,459	(X)	19,965
	Water well and blast hole drills, portable churn-drill type:				
35319 27	As reported in the census of manufactures <sup>1</sup> .....	(X)	20,417	(X)	(NA)
	As reported on Census Form M35D or MA-35D <sup>1</sup> .....	591	16,671	(X)	(5)
35319 28	Churn-drill type.....	229	2,480	(5)	(5)
35319 29	Rotary-drill type.....	362	14,191		
35319 31	Pulverizers and grinders, portable.....	139	1,738	157	3,469
35319 52	Winches, except winches for mounting on wheel or tracklaying tractors.....	36,464	22,522	26,334	17,108

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total shipments including interplant transfers					
		1963		1958			
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)		
3531- --	CONSTRUCTION MACHINERY AND EQUIPMENT—Continued						
35319 --	Other construction machinery and equipment, including construction machinery parts, n.e.c.—Continued						
	Excavating and road construction and maintenance machinery, except shovels and cranes—Continued						
	Winches (towing, logging and oil-field types) for mounting on wheel or tracklaying tractors:						
35319 55	As reported in the census of manufactures <sup>1</sup> .....	(X)	20,024	(X)	(NA)		
	As reported on Census Form MB5D or MA-35D <sup>1</sup> .....	8,613	19,285	(X)	( <sup>5</sup> )		
35319 71	Derricks, except oil and gas well (including gallows, frames, ginpole, stiff legs, and guy).....	897	3,812	708	919		
	Portable crushing plants, screening plants, washing plants, and combination plants:						
35319 75	As reported in the census of manufactures <sup>1</sup> .....	(X)	23,138	(X)	(NA)		
	As reported on Census Form MB5D or MA-35D <sup>1</sup> .....	987	23,679	1,201	29,129		
35319 76	Under 50 tons per hour.....	365	2,627	1,201	29,129		
35319 77	50 tons per hour and over.....	622	21,052				
35319 81	Snow plows (for mounting on tractors or trucks) rotary, blowers, "V" and single blades and wings (attachments only).....	(X)	25,085	22,157	10,337		
35319 83	Other excavating and road construction machinery, including earth augers and power post-hole diggers drawn ditchers and trenchers, contractors' hand-held air tools, motor pick-up sweepers, graders (other than motor graders), drawn rollers as well as other types of excavating and earth moving equipment not specified above.....	(X)	41,360	(X)	39,370		
35319 85	Parts and attachments for construction machinery and equipment (sold separately) (except parts and attachments for power cranes, draglines and shovels).....	(X)	144,135	(X)	183,119		
35319 98	All other construction machinery and equipment.....	(X)	43,275	(X)	30,938		
35319 00	Other construction machinery and equipment, n.s.k.....	(X)	4,511	(X)	4,458		
35310 00	Construction machinery and equipment, n.s.k.....	(X)	33,165	(X)	32,036		
3532- --	MINING MACHINERY AND EQUIPMENT, TOTAL.....	(X)	336,213	(X)	275,289		
35321 --	Underground mining machinery and related mining equipment:						
	As reported in the census of manufactures <sup>1</sup> .....	(X)	73,573	(X)	64,667		
	As reported on Census Form MA-35F, total <sup>1</sup> .....	(X)	71,501	(X)	(X)		
35321 13, 15	Cutting machines.....	68	3,257	123	5,663		
35321 47		Coal recovery augers.....	28			2,238	
	Loading machines (underground mine):						
35321 33	Gathering arm type.....	127	4,386	609	9,210		
35321 35	Shovel type.....	449	3,915				
35321 37	Slusher hoists (scraper loaders).....						
	Continuous mining machines:						
35321 43	Borer type (including underground augering machines).....	158	16,714	116	10,736		
35321 45	Ripper type (including milling type).....						
35321 73	Shuttle cars—rubber tired, self-propelled.....	316	9,011	(NA)	8,547		
35321 75	Mine cars, track.....	2,816	5,020	(NA)	6,401		
	Mineral classifying, flotation, separating, concentrating, cleaning, clarifying and related equipment:						
35321 52	Flotation machines (quantity represents number of cells).....	1,697	2,335	(X)	19,223		
35321 54	Jigs.....	19	641				
35321 55	Concentrating tables.....	183	726				
35321 56	Classifiers—sizing, washing, and dewatering (excluding cyclones).....	799	6,289				
35321 57	Wet cyclones (including heavy medium cyclones).....	741	679				
35321 59	Centrifugal driers.....	123	3,250				
35321 61	Scrubbers (all types, including drums, log washers, attritioning machines, etc.).....	107	3,306				
35321 62	Thermal dryers.....	12	1,414				
35321 66	Feeders—apron, vibrating, and reciprocating.....	1,193	3,954				
35321 67	Magnetic separators (quantity represents number of drums).....	253	1,596				
35321 53, 58, 63, 64, 65	Other mineral classifying, flotation, separating, concentrating, cleaning, clarifying, and related equipment.....	(X)	102,770				
35321 00	Underground mining machinery, n.s.k.....	(X)	-	(X)	4,887		

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3532- --	MINING MACHINERY AND EQUIPMENT—Continued				
35322 --	Crushing, pulverizing, and screening machinery (stationary):				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	58,012	(X)	67,818
	As reported on Census Form MA-35F, total <sup>1</sup> .....	(X)	54,578	(X)	(X)
	Crushers (including crushers on skids):				
35322 11	Gyratory.....	471	12,750	112,114	1134,504
35322 13	Impact.....	477	4,740		
35322 17	Jaw.....	264	3,046		
35322 19	Roll.....	245	3,579		
	Grinding mills:				
35322 33	Ball (including pebble mills).....	249	12,466	12585	1210,727
35322 37	Rod.....	17	1,278		
35322 55	Screens—vibrating, trommell, mine type.....	3,662	16,719	(NA)	1321,464
35322 00	Crushing, pulverizing, and screening plants, n.s.k.....	(X)	-	(X)	1,123
35323 --	All other mining machinery and equipment:				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	39,331	(X)	22,287
	As reported on Census Form MA-35F, total <sup>1</sup> .....	(X)	38,446	(X)	(X)
	Drills:				
35323 23	Rock drills (percussion type).....	10,359	11,776	6,654	3,874
35323 13	Core drills for mineral exploration.....	546	3,569	(NA)	984
	Rotary drills:				
35323 43	Underground (coal and roof).....	137	2,014	(X)	16,904
35323 45	Surface (blast hole).....	133	5,453		
35323 98	Other mining machinery and equipment (complete units).....	(X)	15,634	(X)	525
35323 00	All other mining machinery and equipment, n.s.k.....	(X)	-	(X)	
35324 --	Parts and attachments for mining machinery and equipment, total.....	(X)	158,014	(X)	120,517
35324 25	Construction rock drills, portable, hand held or mounted.....	4,794	4,868	12,786	9,669
	Percussion rock drill bits:				
35324 31	Containing tungsten carbide.....	(X)	12,982	(X)	12,155
35324 35	Made entirely of steel.....	(X)	2,355	(X)	2,225
35324 41	Other drills, tools and supplies for drills (sold separately).....	(X)	16,167	(X)	22,743
35324 75	Other parts and attachments for mining machinery and equipment (sold separately).....	(X)	121,069	(X)	71,749
35324 00	Parts and attachments for mining machinery and equipment, n.s.k.....	(X)	573	(X)	1,976
35320 00	Mining machinery and equipment, n.s.k.....	(X)	7,283	(X)	-
3533- --	OIL FIELD MACHINERY AND EQUIPMENT, TOTAL.....	(X)	572,726	(X)	496,149
35331 --	Rotary oil and gas field drilling machinery and equipment, total.....	(X)	217,238	(X)	222,014
	Rotary drilling surface equipment:				
35331 11	Blocks, crown and traveling.....	355	1,801	(NA)	1,616
35331 12	Draw works and accessories.....	92	8,367	165	14,904
35331 14	Rotary tables.....	145	962	208	1,430
35331 15	Elevators, spiders, slips, hooks, links, and connectors.....	(X)	6,870	(X)	4,385
35331 16	Swivels and accessories.....	(X)	1,566	(X)	1,447
35331 17	Well control equipment (blow-out preventers, etc.).....	(X)	10,565	(X)	10,852
35331 19	Other rotary drilling surface machinery and equipment.....	(X)	23,490	(X)	11,768
	Rotary drilling subsurface equipment:				
35331 41	Bits.....	651,969	110,564	(NA)	123,482
35331 42	Reamers.....	(X)	5,953	(X)	6,456
35331 43	Coring equipment.....	(X)	1,153	(X)	4,658
35331 44	Tool joints, subs, and connectors.....	(X)	17,925	(X)	17,913
35331 45	Drill collars.....	11,707	8,136	10,325	9,169
35331 47	Fishing and cutting tools.....	(X)	6,374	(X)	7,025
35331 49	Other subsurface rotary driving equipment, including Kelly joints....	(X)	12,348	(X)	5,804
35331 00	Rotary oil and gas field drilling machinery and equipment, n.s.k.....	(X)	1,164	(X)	1,105
35332 --	Other oil and gas field drilling machinery and equipment, total.....	(X)	38,849	(X)	43,365
35332 31	Cable tool drilling machinery and equipment (including both surface and subsurface equipment).....	(X)	2,855	(X)	4,972

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3533- --	OIL FIELD MACHINERY AND EQUIPMENT—Continued				
35332 --	Other oil and gas field drilling machinery and equipment—Continued				
	Cementing, floating, guiding, and shoe equipment:				
35332 51	Guide shoes, float collars, and combination guide and float shoes...	(X)	6,831	(X)	5,621
35332 55	Other cementing equipment.....	(X)	6,969	(X)	18,873
35332 61	Parts for oil and gas field drilling equipment sold separately (except parts for portable drilling rigs).....	(X)	18,231	(X)	13,546
35332 98	Other oil and gas field drilling equipment, except portable.....	(X)	3,963	(X)	353
35333 --	Oil and gas field production machinery and equipment (except pumps), total.....	(X)	261,453	(X)	175,453
	Flowing well equipment, surface and subsurface:				
35333 11	Christmas tree assemblies.....	(X)	14,966	(X)	16,102
35333 13	Casing and tubing heads and supports.....	(X)	11,713	(X)	12,522
35333 15	Chokes, manifolds, and other accessories.....	(X)	16,830		
35333 19	Rodless oil lifting machinery and equipment (other than pumps).....	(X)	7,607	(X)	13,926
	Rod lifting machinery and equipment, surface (including pumps when they are components of a complete assembly):				
35333 53	Pumping units and accessories (include back crank equipment).....	9,138	41,433	11,962	39,432
35333 55	Other surface rod lifting machinery and equipment.....	(X)	2,011	(X)	1,748
35333 57	Rod lifting equipment, subsurface, except pumps (quantity represents number of sucker rods shipped).....	2,594,040	24,570	2,379,520	21,365
	Other production machinery and equipment:				
35333 61	Packers.....	(X)	17,280	(X)	9,895
35333 65	Screens, tubing, catchers, etc.....	(X)	8,543	(X)	4,959
35333 71	Oil and gas separating, metering, and treating equipment (quantity represents number of separators).....	16,312	13,911	(S)	11,472
35333 81	Parts for oil and gas field machinery and tools, sold separately, including parts for portable drilling rigs but excluding parts for other drilling equipment.....	(X)	19,535	(X)	10,102
35333 98	Other oil and gas field machinery and tools.....	(X)	78,482	(X)	33,930
35333 00	Oil and gas field production machinery and equipment (except pumps), n.s.k.....	(X)	4,572	(X)	-
35334 --	Other oil and gas field machinery and tools (except pumps) including water well drilling equipment and portable drilling rigs, total.....	(X)	43,290	(X)	40,715
	Portable drilling rigs—permanently mounted on truck or trailer:				
	Oil and gas field:				
35334 11	Cable tool.....	122	3,468	235	5,226
35334 13	Rotary rigs.....	298	14,568	275	11,837
	Water well and blast hole:				
35334 15	Cable tool.....	397	2,879	324	2,781
35334 17	Rotary rigs.....	209	6,672	234	6,006
35334 21	Derricks, oil and gas field, substructures, and accessories—regular and portable.....	(NA)	8,118	(S)	2,190
35334 31	Well surveying machinery and equipment.....	(X)	7,129	(X)	1,917
35334 00	Other oil and gas field machinery and tools, n.s.k.....	(X)	456	(X)	10,758
35330 00	Oil field machinery and equipment, n.s.k.....	(X)	11,896	(X)	14,602
3534- --	ELEVATORS AND MOVING STAIRWAYS, TOTAL.....	(X)	248,209	(X)	165,277
	Elevators (except farm and portable):				
35340 11	Electric passenger (except residence lifts).....	5,930	108,079	2,985	61,534
35340 12	Hydraulic passenger.....	2,184	13,332	1,029	5,270
35340 13	Electric freight.....	1,040	10,810	1,325	16,247
35340 15	Hydraulic freight.....	2,536	11,604	2,203	7,105
35340 31	Automobile lifts (service station and garage type).....	34,026	19,985	21,125	13,793
35340 51	Moving stairways and escalators.....	672	12,691	395	6,587
35340 96	Other nonfarm elevators (includes sidewalk elevators, dumbwaiters, man lifts, hand-operated freight elevators, residence lifts, etc.).....	(X)	9,944		
35340 97	Parts and attachments for elevators and moving stairways (sold separately).....	(X)	53,680	(X)	45,971
35340 00	Elevators and moving stairways, n.s.k.....	(X)	8,084	(X)	8,770

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Value of shipments including interplant transfers (\$1,000)			
		1963	1958		
3535- --	CONVEYORS AND CONVEYING EQUIPMENT, TOTAL.....	414,854	333,877		
35351 --	Conveyors and conveying equipment (except hoists and farm elevators).....	306,236	247,994		
35351 11	Gravity conveyors (skate, wheel, and roller).....	29,916	20,129		
35351 31	Overhead trolley conveyor systems.....	38,131	19,486		
35351 41	Pneumatic tube systems, including foot-power units.....	13,530	12,720		
35351 51	Portable conveyors (except farm).....	13,073	8,633		
35351 61	Underground mine conveyors and conveying systems.....	11,649	11,066		
	Other conveyors and conveying systems (includes specially engineered conveyor installations):				
35351 71	Bulk material conveyors.....	113,808	117,720		
35351 73	Package (unit) conveyors.....	81,245	47,730		
35351 00	Conveyors and conveying equipment (except hoists), n.s.k.....	4,884	10,510		
35352 11	Parts, attachments, and accessories for conveyors and conveying systems (sold separately).....	87,963	72,021		
35350 00	Conveyors and conveying equipment (including parts), n.s.k.....	20,655	13,862		
Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3536- --	HOISTS, INDUSTRIAL CRANES, AND MONORAIL SYSTEMS, TOTAL.....	(X)	224,183	(X)	165,544
35361 --	Hoists, total.....	(X)	104,978	(X)	59,401
35361 12	Hand and electric chain hoists.....	168,368	22,795	134,877	17,589
35361 14	Mine shaft and slope electric wire-rope hoists.....	1 <sup>4</sup> 220	1 <sup>4</sup> 3,015	(NA)	1,325
35361 16	Other electric wire-rope hoists.....	22,711	20,287	17,645	14,557
35361 37	Air hoists.....	11,390	10,120	5,015	5,590
35361 38	Other hoists.....	111,975	31,986	59,184	20,340
35361 45	Parts and attachments for hoists (sold separately).....	(X)	16,133	(X)	(NA)
35361 00	Hoists, n.s.k.....	(X)	642	(X)	-
35362 --	Overhead traveling cranes and monorail systems, total.....	(X)	115,701	(X)	106,143
	Cranes (except construction power cranes):				
	Electric overhead traveling:				
35362 12	Bridge type.....	3,086	78,983	} 3,020	83,996
35362 13	Jib type.....	1,611	990		
35362 14	Other.....	697	6,730		
35362 15	Hand power overhead traveling.....	1,985	2,317	805	1,027
35362 53	Monorail systems.....	2,778	13,174	4,140	1 <sup>5</sup> 20,385
35362 55	Parts and attachments for overhead traveling cranes and monorail systems (sold separately).....	(X)	13,049	(X)	(NA)
35362 00	Overhead traveling cranes and monorail systems, n.s.k.....	(X)	458	(X)	735
35360 00	Hoists, industrial cranes, and monorail systems, n.s.k.....	(X)	3,504	(X)	-
3537- --	INDUSTRIAL TRUCKS, TRACTORS, TRAILERS, AND STACKERS, TOTAL.....	(X)	458,741	(X)	276,674
	Powered trucks and tractors:				
35370 11	Trucks (operator walking).....	10,865	21,276	10,595	15,702
	Trucks (operator riding) and tractors:				
	Electric (storage battery):				
35370 21	Fork trucks.....	8,004	45,523	3,321	19,524
35370 29	Other industrial trucks and tractors.....	(X)	7,034	(X)	3,393
	Gasoline:				
35370 31	Fork trucks.....	28,080	178,235	16,386	95,312
35370 33	Trucks (except fork).....	477	3,728	631	3,358
35370 35	Tractors.....	1,659	6,625	3,221	12,810

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3537- --	INDUSTRIAL TRUCKS, TRACTORS, TRAILERS, AND STACKERS—Continued				
	Powered trucks and tractors—Continued				
	Trucks (operator riding) and tractors—Continued				
35370 41	All other trucks (operator riding) and tractors, including diesel, compressed-air powered, etc.....	(X)	14,433	(X)	5,901
35370 51	Portable elevators (stackers) excluding farm type.....	3,769	4,313	2,870	3,771
	Hand trucks and trailers, including dollies and platform trucks:				
35370 61	Hand lift.....	(X)	10,000	(X)	11,366
35370 65	Other hand trucks and trailers, including two wheel, four wheel, dollies, and platform trucks.....	(X)	32,177	(X)	30,395
35370 71	Metal pallets and skids (excluding wood and metal combination).....	(X)	12,098	(X)	6,786
35370 81	Parts and attachments and miscellaneous equipment (sold separately).....	(X)	91,737	(X)	44,752
35370 00	Industrial trucks and trailers, n.s.k.....	(X)	31,562	(X)	23,604

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(S) Suppressed because the data did not meet publication standards.

<sup>1</sup>For these products, data were also collected in the census annual commodity survey program. In lieu of asking for detailed statistics on these products in the censuses of manufactures, respondents were asked to report only value of shipments for specified products or classes of products for which separate figures had previously been collected in the commodity survey. In most cases, the value figures reported in the censuses of manufactures for each product or class of products agreed closely with the corresponding figures reported in the commodity survey. However, there were some differences between the census figures and the commodity survey figures. These variations were due primarily to the following reasons:

- Use of different reporting periods (calendar year vs. fiscal year).
- Use of different base for reporting value (company sales vs. factory production).
- Use of estimates in reporting data on the commodity survey whereas census of manufactures figures generally represent more exact shipments figures.

<sup>2</sup>Represents wheeled tractors designed primarily to be used as towing units for scrapers, trailers, wagons, and similar types of towed equipment for use on natural terrain but restricted by State laws or regulations from operating on public highways.

<sup>3</sup>Machines shipped primarily as independent dozing or pushing units characterized with approximate equal weight fore and aft with all wheel drive as differentiated from machines designed for integral hook-up towing.

<sup>4</sup>Data exclude those crawler tractors produced as components of complete tractor-shovel-loaders. The 1958 horsepower ratings for these tractors are based on maximum corrected drawbar horsepower.

<sup>5</sup>For 1958, selected types of construction machinery for which figures were collected on Census Annual Form MA-35D or Quarterly Form MB5D but which could not be published are included with cranes except construction power cranes. These products include scrapers, 2- and 4-wheel, under 7 cubic yard standard struck capacity; winches (towing, logging and oil field types) for mounting on tractors; cranes for mounting on tractors; wheel tractors (truck type), off-highway type, 2 and 3 axle models; and portable drills, churn drill type, water well and blast hole.

<sup>6</sup>Parts and attachments for tracklaying type and wheel type tractor shovel loaders are included with parts and attachments for construction machinery and equipment (sold separately) (except parts and attachments for power cranes, draglines and shovels) (codes 3531985), for 1958.

<sup>7</sup>Tandem units are reported as two separate units.

<sup>8</sup>Represents vehicles normally operated off the public highway and specially designed to transport materials, property, or equipment on mining, construction, logging, petroleum development, and similar projects. These vehicles are of such size or weight as to be normally restricted by State laws or regulations from operating on public highways.

<sup>9</sup>Excludes front-end loaders shipped to producers of complete tractor-shovel loaders (integral units).

<sup>10</sup>Includes figures for dense medium vessels (3532153), centrifuges (3532158), concentrating spirals (3532163), thickeners (3531264) and filters (3532165).

<sup>11</sup>Represents crushers and crushing plants.

<sup>12</sup>Represents pulverizers and grinders.

<sup>13</sup>Represents screening plants, washing plants and combination washing and screening plants.

<sup>14</sup>Comparable data were also collected on Census Annual Form MA-35F, "Mining Machinery and Equipment." Data collected in the census of manufactures indicate a degree of undercoverage in the MA-35F Annual Commodity Survey.

<sup>15</sup>For 1958, this value includes parts and attachments for monorail systems.



TABLE 6B. **Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
353	Construction, mining, and materials handling machinery and equipment construction and like equipment...1963..	( <sup>1</sup> )	( <sup>1</sup> )
	1958..	( <sup>1</sup> )	( <sup>1</sup> )
3534	Elevators and moving stairways.....1963..	173	111
	1958..	109	118
3536	Hoists, cranes, and monorail systems.....1963..	142	97
	1958..	84	124
35361	Hoists.....1963..	207	115
	1958..	88	125

<sup>1</sup>The indexes for this group and for the products of industries 3531, 3532, 3533, 3535, and 3537 are not shown because comparable quantity data were not obtained for a significant portion of these products.

**TABLE 6C. Product Classes—Value Shipped by All Manufacturing Establishments:  
1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3531-	Construction machinery.....	2,624,171	2,159,351	1,989,468	2,052,010	2,374,707	1,996,322	1,410,685	(NA)
35311	Contractors' off-highway wheel tractors, except parts and attachments.....	102,660	78,880	74,466	64,965	91,944	89,956	46,355	(NA)
35312	Tracklaying type tractors, except parts and attachments.....	317,352	256,671	237,622	269,831	322,952	287,300	266,828	133,706
35313	Parts and attachments for tracklaying and contractors' off-highway wheel tractors...	302,732	242,049	237,089	265,739	392,340	272,072	169,639	(NA)
35314	Power cranes(including locomotive full circle, revolving with booms), draglines, shovels, and parts.....	464,757	400,074	356,071	359,020	394,967	361,068	268,691	247,985
35316	Mixers, pavers, and related equipment, excluding parts.....	132,020	109,110	110,347	107,468	133,025	101,908	70,967	56,751
35317	Integral tractor-shovel loaders (wheel and tracklaying types), excluding parts...	387,988	<sup>2</sup> 289,626	<sup>2</sup> 287,184	<sup>2</sup> 285,630	<sup>2</sup> 228,903	<sup>2</sup> 157,889	(NA)	(NA)
35318	Scrapers, graders, rollers, and off-highway trucks, trailers, and wagons, excluding parts.....	479,986	362,036	301,586	313,677	365,800	326,002	(NA)	(NA)
35319	Other construction machinery and equipment, including construction machinery parts, n.e.c.....	403,511	<sup>3</sup> 361,609	<sup>3</sup> 328,116	<sup>3</sup> 337,286	<sup>3</sup> 401,548	<sup>3</sup> 368,091	(NA)	(NA)
35310	Construction machinery, n.s.k.....	33,165	(59,296)	(56,987)	(48,394)	(43,228)	32,036	(NA)	(NA)
3532-	Mining machinery and equipment.....	336,213	267,508	298,724	333,118	332,552	275,289	144,745	(NA)
35321	Underground mining machinery and related mining equipment.....	73,573	59,546	55,198	64,618	66,550	64,667	61,515	(NA)
35322	Crushing, pulverizing, and screening plants, stationary.....	58,012	45,938	55,524	75,106	77,138	67,818	46,644	(NA)
35323	All other mining machinery (complete units)	39,331	162,024	188,002	193,394	188,864	142,804	36,586	(NA)
35324	Parts and attachments for mining machinery and equipment.....	158,014							
35320	Mining machinery, n.s.k.....	7,283							
3533-	Oil field machinery.....	572,726	550,371	507,785	511,048	569,720	496,149	468,716	262,939
35331	Rotary oil and gas field drilling machinery and equipment.....	217,238	208,042	207,408	215,082	236,006	222,014	223,524	147,489
35332	Other oil and gas field drilling machinery and equipment.....	38,849	48,004	46,376	45,885	50,981	43,365	56,873	
35333	Oil and gas field production machinery and equipment (except pumps).....	261,453	217,009	194,459	185,120	210,681	175,453	147,812	115,450
35334	Other oil and gas field machinery and tools (except pumps), including water wells.....	43,290	48,022	38,327	44,934	51,823	40,715	40,507	
35330	Oil field machinery and equipment, n.s.k....	11,896	(29,294)	(21,215)	(20,027)	(20,229)	14,602	-	-
35340	Elevators and moving stairways.....	248,209	232,248	196,497	204,741	187,493	165,277	128,102	96,409
3535-	Conveyors.....	414,854	373,959	349,478	366,657	341,914	333,877	294,643	180,691
35351	Conveyors and conveying equipment (except hoists and farm elevators).....	306,236	284,965	272,121	284,047	264,286	247,994	233,389	145,937
35352	Parts, attachments, and accessories for conveyors and systems (sold separately)...	87,963	73,944	66,048	72,747	67,652	72,021	61,254	34,754
35350	Conveyors and conveying equipment (except hoists), n.s.k.....	20,655	(15,050)	(11,309)	(9,863)	(9,976)	13,862	-	-
3536-	Hoists, cranes, and monorails.....	224,183	187,788	172,064	200,785	167,634	165,544	159,056	93,267
35361	Hoists.....	104,978	98,379	86,429	87,060	(82,519)	59,401	55,068	56,025
35362	Overhead traveling cranes and monorails systems.....	115,701	89,409	85,635	113,725	85,115	106,143	103,988	37,242
35360	Hoists, industrial cranes, and monorail systems, n.s.k.....	3,504	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
35370	Industrial trucks and tractors.....	458,741	394,408	345,510	389,480	375,275	276,674	254,822	154,824

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Source: Current Industrial Reports Series M35D, Construction Machinery, and M35S, Tractors (Except Garden Tractors). These data exclude the value of parts and attachments for wheel type shovel loaders. In addition data for 1958 and 1959 exclude parts and attachments for tracklaying type shovel loaders.

<sup>3</sup>Includes the value of parts and attachments for wheel type shovel loaders. In addition data for 1958 and 1959 include parts and attachments for tracklaying type shovel loaders.



TABLE 6D. **Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
CONTRACTORS' OFF-HIGHWAY WHEEL TRACTORS EXCEPT PARTS AND ATTACHMENTS (35313)			SCRAPERS, GRADERS, ROLLERS, AND OFF-HIGHWAY TRUCKS, TRAILERS, AND WAGONS, EXCLUDING PARTS (35318)			CRUSHING, PULVERIZING, AND SCREENING PLANTS, STATIONARY (35322)		
United States, total.....	302,732		United States, total...	479,986	326,002	United States, total...	58,012	67,818
East North Central.....	229,945		Northeast.....	21,035	16,349	Northeast.....	13,188	20,311
Ohio.....	9,593		New Jersey.....	2,570	( <sup>2</sup> )	Pennsylvania.....	10,573	14,450
Illinois.....	186,279		Pennsylvania.....	15,564	7,558	East North Central.....	29,704	21,452
Wisconsin.....	7,630		East North Central.....	342,500	( <sup>2</sup> )	Ohio.....	4,606	3,833
West North Central.....	19,200		Ohio.....	85,984	72,664	Wisconsin.....	21,194	14,743
Iowa.....	18,688		Illinois.....	194,719	133,090	West North Central.....	12,797	18,961
Pacific.....	19,157		Wisconsin.....	22,776	16,953	Missouri.....	3,342	3,564
California.....	11,238		West North Central.....	61,760	( <sup>2</sup> )	South and West.....	2,323	7,074
All other divisions.....	34,430		Iowa.....	32,995	10,662			
			Kansas.....	3,455	( <sup>2</sup> )			
POWER CRANES (INCLUDING LOCOMOTIVE, FULL CIRCLE, REVOLVING WITH BOOMS) DRAG-LINES, SHOVELS AND PARTS (35314)	1963 <sup>1</sup>	1958	South.....	39,608	19,612	PARTS AND ATTACHMENTS FOR MINING MACHINERY AND EQUIPMENT (35324)	1963 <sup>1</sup>	
United States, total.....	464,757	361,068	Texas.....	11,533	8,078	United States, total...		158,014
Northeast.....	23,026	27,058	West.....	15,083	11,627	New England.....		11,658
Pennsylvania.....	18,401	26,267	California.....	9,219	( <sup>2</sup> )	Middle Atlantic.....		48,172
East North Central.....	348,675	266,573	OTHER CONSTRUCTION MACHINERY AND EQUIPMENT, INCLUDING CONSTRUCTION MACHINERY PARTS, N.E.C. (35319)			Pennsylvania.....		43,720
Ohio.....	93,312	76,931	United States, total...	403,511	383,090	East North Central.....		60,617
Indiana.....	41,072	26,848	New England.....	6,315	5,646	Ohio.....		17,846
Illinois.....	18,441	22,358	Massachusetts.....	1,506	1,381	Illinois.....		10,928
Michigan.....	41,248	36,754	Middle Atlantic.....	42,946	28,871	West North Central.....		6,073
Wisconsin.....	154,602	103,682	New York.....	7,696	4,818	South.....		8,788
West North Central.....	71,840	44,701	New Jersey.....	18,262	12,504	West Virginia.....		5,998
South.....	10,256	11,857	Pennsylvania.....	16,988	11,549	Mountain.....		19,536
West.....	10,960	10,879	East North Central.....	198,941	217,818	Pacific.....		3,170
Washington.....	6,084	5,834	Ohio.....	62,012	55,791	California.....		1,964
California.....	3,913	2,800	Indiana.....	17,129	7,925			
MIXERS, PAVERS, AND RELATED EQUIPMENT, EXCLUDING PARTS (35316)			Illinois.....	52,727	95,589	ROTARY OIL AND GAS FIELD DRILLING MACHINERY AND EQUIPMENT (35331)		
United States, total.....	132,020	101,908	Michigan.....	24,196	28,141	United States, total...	217,238	222,014
Northeast.....	10,954	9,970	Wisconsin.....	42,877	30,372	Middle Atlantic.....	2,116	3,796
New Jersey.....	3,695	4,490	West North Central.....	57,793	44,667	North Central.....	6,577	3,875
Pennsylvania.....	4,278	3,754	Minnesota.....	19,362	16,420	South.....	167,653	173,727
East North Central.....	79,445	( <sup>2</sup> )	Iowa.....	28,300	21,886	West.....	40,892	40,616
Ohio.....	19,797	16,240	Kansas.....	5,117	( <sup>2</sup> )			
Illinois.....	31,507	19,614	South Atlantic.....	15,362	12,871	OTHER OIL AND GAS FIELD DRILLING MACHINERY AND EQUIPMENT (35332)		
Wisconsin.....	19,041	20,181	East South Central.....	10,391	3,607	United States, total...	38,849	43,365
West North Central.....	14,082	( <sup>2</sup> )	Alabama.....	6,560	2,586	Middle Atlantic.....	1,939	2,174
Iowa.....	11,983	( <sup>2</sup> )	West South Central.....	28,231	26,083	South.....	28,554	( <sup>2</sup> )
South.....	7,449	3,334	Oklahoma.....	10,543	17,541	Oklahoma.....	7,774	( <sup>2</sup> )
Texas.....	4,131	( <sup>2</sup> )	Texas.....	17,688	( <sup>2</sup> )	Texas.....	17,416	19,707
West.....	20,090	15,782	Mountain.....	5,007	( <sup>2</sup> )	Pacific.....	7,283	20,331
California.....	18,221	14,006	Pacific.....	38,525	( <sup>2</sup> )	California.....	7,283	20,331
INTEGRAL TRACTOR-SHOVEL LOADERS (WHEEL AND TRACKLAYING TYPES), INCLUDING PARTS (35317)			California.....	19,797	17,855	All other divisions.....	1,073	( <sup>2</sup> )
United States, total.....	387,988	142,890	UNDERGROUND MINING MACHINERY AND RELATED MINING EQUIPMENT (35321)					
Northeast.....	13,223	( <sup>2</sup> )	United States, total...	73,573	64,667	OIL AND GAS FIELD PRODUCTION MACHINERY AND EQUIPMENT (EXCEPT PUMPS) (35333)		
North Central.....	360,283	128,258	Northeast.....	30,324	25,067	United States, total...	261,453	175,453
Illinois.....	283,472	88,314	East North Central.....	14,196	( <sup>2</sup> )	Middle Atlantic.....	13,839	6,356
South and West.....	14,482	( <sup>2</sup> )	West North Central.....	4,615	( <sup>2</sup> )	Pennsylvania.....	12,679	6,356
			South.....	7,598	( <sup>2</sup> )	East North Central.....	8,013	9,851
			Mountain.....	10,674	( <sup>2</sup> )	Illinois.....	1,631	2,381
			Pacific.....	6,166	( <sup>2</sup> )			

TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
OIL AND GAS FIELD PRODUCTION MACHINERY AND EQUIPMENT (EXCEPT PUMPS) (35333)—Continued			CONVEYORS AND CONVEYING EQUIPMENT (EXCEPT HOISTS AND FARM ELEVATORS) (35351)—Continued			PARTS, ATTACHMENTS, AND ACCESSORIES FOR CONVEYORS AND SYSTEMS (SOLD SEPARATELY) (35352)—Continued		
West South Central.....	205,019	( <sup>2</sup> )	East North Central.....	143,598	112,367	West North Central.....	2,463	1,648
Louisiana.....	4,047	4,981	Ohio.....	28,650	27,108	Minnesota.....	1,063	( <sup>2</sup> )
Oklahoma.....	40,477	34,971	Illinois.....	41,853	35,283	South.....	14,665	4,951
Texas.....	160,495	98,067	Michigan.....	66,642	41,005	West.....	3,659	4,571
Mountain.....	1,432	( <sup>2</sup> )	West North Central.....	27,620	21,846	California.....	1,698	3,140
Pacific.....	24,075	( <sup>2</sup> )	Minnesota.....	9,572	8,054	HOISTS (35361)		
California.....	24,075	5,244	Iowa.....	2,814	( <sup>2</sup> )	United States, total..	104,978	59,401
All other divisions.....	9,075	( <sup>2</sup> )	Missouri.....	8,973	6,958	Northeast.....	23,828	19,119
OTHER OIL AND GAS FIELD MACHINERY AND TOOLS (EXCEPT PUMPS) INCLUDING WATER WELLS (35334)			South Atlantic.....	11,148	8,024	New York.....	10,550	( <sup>2</sup> )
United States, total....	1963 <sup>1</sup>		Georgia.....	3,961	( <sup>2</sup> )	Pennsylvania.....	10,149	11,179
Northeast and North Central.		8,168	Florida.....	1,252	( <sup>2</sup> )	East North Central.....	45,877	23,850
Ohio.....		2,106	East South Central.....	23,524	11,999	Ohio.....	17,423	5,661
South.....		33,344	Kentucky.....	10,541	4,899	Illinois.....	7,592	5,605
Texas.....		22,158	West South Central.....	12,033	5,314	Michigan.....	12,163	7,660
West.....		1,778	Texas.....	10,234	4,417	Wisconsin.....	7,981	( <sup>2</sup> )
			Mountain.....	2,240	( <sup>2</sup> )	West North Central.....	3,721	4,368
			Colorado.....	1,775	( <sup>2</sup> )	Iowa.....	1,393	1,713
			Pacific.....	21,429	( <sup>2</sup> )	South.....	15,386	5,372
			Washington.....	1,631	( <sup>2</sup> )	West.....	16,166	6,692
			Oregon.....	1,366	( <sup>2</sup> )	California.....	7,390	2,575
			California.....	18,432	14,925	OVERHEAD TRAVELING CRANES AND MONORAIL SYSTEMS (35362)		
CONVEYORS AND CONVEYING EQUIPMENT (EXCEPT HOISTS AND FARM ELEVATORS) (35351)			PARTS, ATTACHMENTS, AND ACCESSORIES FOR CONVEYORS AND SYSTEMS (SOLD SEPARATELY) (35352)			United States, total..	115,701	106,143
United States, total....	1963 <sup>1</sup>	1958	United States, total..	87,963	72,021	New England.....	1,528	( <sup>2</sup> )
New England.....	3,836	2,403	Northeast.....	15,734	( <sup>2</sup> )	Middle Atlantic.....	10,499	( <sup>2</sup> )
Massachusetts.....	3,219	2,312	New York.....	1,113	2,556	North Central.....	90,293	87,687
Middle Atlantic.....	60,808	68,483	Pennsylvania.....	9,178	7,212	Ohio.....	37,064	39,304
New York.....	15,653	15,010	East North Central.....	51,442	45,476	Illinois.....	10,980	11,271
New Jersey.....	10,838	14,188	Ohio.....	4,837	9,222	Michigan.....	13,709	14,516
Pennsylvania.....	34,317	39,285	Illinois.....	16,947	15,184	South.....	2,944	( <sup>2</sup> )
			Michigan.....	9,139	5,914	Pacific.....	10,437	( <sup>2</sup> )

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million reported.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 35313, Pennsylvania, Indiana, Michigan, Georgia, Utah, and Oregon; 35314, New York, Minnesota, Iowa, Missouri, Georgia, Louisiana, and Texas; 35316, Massachusetts, New York, Indiana, Minnesota, and Oklahoma; 35317, New York, Ohio, Michigan, Wisconsin, Iowa, Maryland, Kentucky, Utah, Oregon, and California; 35318, Massachusetts, Indiana, Michigan, Minnesota, Missouri, North Dakota, Georgia, Kentucky, Mississippi, Oklahoma, Washington, and Oregon; 35319, Maine, New Hampshire, Missouri, Delaware, Maryland, Virginia, Georgia, Tennessee, Colorado, Washington, and Oregon; 35321, New Hampshire, Pennsylvania, Ohio, Indiana, Illinois, Iowa, West Virginia, Tennessee, Colorado, Utah, and California; 35322, Maine, New York, Indiana, Michigan, Minnesota, Iowa, and Kansas; 35324, Maine, New Hampshire, New York, New Jersey, Michigan, Wisconsin, Iowa, Missouri, Colorado, and Utah; 35331, Pennsylvania, Indiana, Illinois, Louisiana, Utah, and California; 35332, Pennsylvania, and Louisiana; 35333, Ohio, Wisconsin, Minnesota, Kansas and New Mexico; 35334, Pennsylvania, Indiana, Kansas, and Oklahoma; 35351, Wisconsin, South Dakota, Kansas, Tennessee, Alabama, Mississippi; 35352, New Jersey, Indiana, Wisconsin, Virginia, South Carolina, Mississippi, Texas, and Oregon; 35361, New Hampshire, New Jersey, Minnesota, Kentucky, Tennessee, Arkansas, Colorado, Washington, and Oregon; 35362, Connecticut, New York, Pennsylvania, Wisconsin, Iowa, Texas, Washington, and California.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.



TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958		1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3531.—CONSTRUCTION MACHINERY				INDUSTRY 3532.—MINING MACHINERY AND EQUIPMENT			
	Materials, parts, containers and supplies, total.....		(X)	1,284,321	(X)	948,778	(X)	166,460	(X)	134,093
	Mill shapes and forms (except castings):									
	Carbon steel:									
331011	Bar and bar shapes.....	Short tons..	271,945	43,949	261,974	42,766	21,917	4,463	21,820	3,911
331012	Sheet and strip.....	do.....	103,966	16,092	82,268	12,335	5,734	955	5,417	817
331013	Plates.....	do.....	506,170	74,131	339,061	47,961	46,244	6,841	42,064	6,633
331015	Structural shapes.....	do.....	115,418	17,958	99,847	14,612	15,484	2,353	26,963	4,175
331017	Wire and wire products.....	do.....	5,335	2,855	6,404	2,639	281	85	342	140
331019	All other carbon steel mill shapes and forms.....	do.....	94,723	21,320	68,894	16,278	8,370	1,552	11,501	3,276
	Alloy steel except stainless:									
331021	Bars and bar shapes.....	do.....	48,590	11,784	36,540	8,057	8,665	2,519	6,773	2,220
331029	All other alloy steel mill shapes and forms.....	do.....	55,077	13,403	28,262	7,144	8,173	1,935	13,983	6,718
331031	Stainless steel.....	do.....	414	559	499	783	668	919	521	823
	Copper and copper-base alloy:									
335728	Bare wire, (for electrical conduction).....	1,000 lbs...	234	143	342	223	498	639	459	334
335790	Insulated wire and cable.....	1,000 lbs. (copper content)...	1,348	1,206	1,959	1,426			445	803
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs...	476	291	7,040	3,833	423	331	810	506
335123	Plate, sheet and strip (including military cups and discs).....	do.....	8,354	4,273						
335127	Pipe and tube.....	do.....	3,187	1,590						
	Aluminum and aluminum-base alloy:									
335202	Sheet plate and foil.....	do.....	2,462	1,248	785	425	97	58	(NA)	(NA)
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc.....	do.....	1,641	846	616	431	(NA)	192	(NA)	(NA)
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.....	do.....	215	120						
331051	Pig iron (excluding silvery iron).....	Short tons..	34,705	2,088	20,858	1,357	5,498	336	5,124	387
999811	Iron and steel scrap (purchased scrap only).....	do.....	65,045	2,053	54,222	2,263	14,520	536	8,722	427
	Castings (rough and semi-finished):									
332011	Iron (gray and malleable) <sup>1</sup> .....	do.....	154,754	54,154	135,996	44,493	10,666	4,346	15,781	5,965
332300	Steel <sup>1</sup> .....	do.....	160,403	95,044	140,915	77,843	24,471	14,848	14,702	10,957
336100	Aluminum and aluminum-base alloy <sup>1</sup> .....	1,000 lbs...	10,139	7,881	5,350	3,435	133	150	105	97
336200	Copper and copper-base alloy <sup>1</sup> .....	do.....	5,241	4,297	4,368	3,284	600	702	1,429	827
339100	Iron and steel forgings <sup>1</sup> .....	Short tons..	230,325	97,512	161,771	66,649	17,859	8,093	7,903	4,435
	Engines:									
351920	Diesel and semidiesel <sup>1</sup> .....	Number.....	42,130	87,578	27,994	56,684	505	1,536	275	869
351901	Gasoline and other carburetor <sup>1</sup> .....	do.....	43,169	14,553	40,935	14,498	632	293	744	191
	Electric motors and generators:									
362115	Fractional horsepower electric motors (under 1hp.) (excluding timing motors) <sup>1</sup> .....	do.....	39,390	684	23,551	538	1,613	149	(D)	(D)
362120	Integral horsepower motors and generators (1hp. and over) <sup>1</sup> .....	do.....	26,519	16,887	17,510	7,634	9,875	8,784	4,608	3,681
	Bearings:									
356218	Ball.....	do.....	(X)	9,784	(X)	17,616	(X)	1,216	(X)	1,379
356228	Roller.....	do.....	(X)	15,157			(X)	1,563		
301131	Pneumatic tires.....	Number.....	366,982	40,917	230,516	24,157	9,649	954	3,048	180
301141	Inner tubes.....	do.....	138,767	781	73,511	438	(NA)	23	(D)	(D)
356601	Mechanical power transmission equipment, (except motor vehicle), including gears, clutches, etc.....	do.....	(X)	72,243	(X)	264,000	(X)	4,482	(X)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	do.....	(X)	490,642	(X)	357,927	(X)	83,895	(X)	66,185
976000	Materials, parts, containers and supplies, n.s.k. <sup>2</sup> .....	do.....	(X)	60,298	(X)	47,049	(X)	11,593	(X)	8,157

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3533.—OIL FIELD MACHINERY			
	Materials, parts, containers, and supplies, total.....		(X)	216,441	(X)	194,057
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	50,005	9,232	41,104	7,266
331013	Plates.....	..do.....	44,780	6,811	31,593	4,778
331015	Structural shapes.....	..do.....	32,141	5,109	34,472	6,168
331019	All other carbon steel mill shapes and forms.....	..do.....	27,512	7,072	43,487	9,093
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	75,025	19,514	77,992	19,722
331029	All other alloy steel mill shapes and forms.....	..do.....	26,207	7,273	18,939	6,382
331031	Stainless steel mill shapes and forms.....	..do.....	1,845	2,619	1,466	1,660
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 pounds....	486	169	89	27
335790	Insulated wire and cable.....	1,000 pounds (copper content).....	20	28		
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 pounds....	1,229	832	1,393	763
335123	Plate, sheet, and strip, including military cups and discs.....	..do.....	101	92		
335127	Pipe and tube.....	..do.....	1,023	541		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	..do.....	198	139	(NA)	(NA)
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	..do.....	431	380	(NA)	(NA)
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	..do.....	223	141	(NA)	(NA)
	Castings (rough and semifinished):					
332011	Iron (gray and malleable) <sup>1</sup> .....	Short tons.....	45,986	12,858	32,235	7,703
332300	Steel <sup>1</sup> .....	..do.....	17,017	11,513	22,467	11,803
336100	Aluminum and aluminum-base alloy <sup>1</sup> .....	1,000 pounds....	1,753	858	(NA)	(NA)
336200	Copper and copper-base alloy <sup>1</sup> .....	..do.....	2,010	1,403	1,377	910
339100	Iron and steel forgings <sup>1</sup> .....	Short tons.....	17,136	7,831	21,899	12,101
	Engines:					
351920	Diesel and semidiesel <sup>1</sup> .....	Number.....	843	3,334	695	2,460
351901	Gasoline and other carburetor <sup>1</sup> .....	..do.....	563	720	1,479	1,967
	Bearings:					
356218	Ball.....	.....	(X)	1,665	(X)	3,221
356228	Roller.....	.....	(X)	2,680		
970099	All other materials and components, parts containers and supplies consumed.....	.....	(X)	89,328	(X)	93,504
976000	Materials, parts, containers, and supplies, n.s.k. <sup>3</sup> .....	.....	(X)	24,299	(X)	4,529
			INDUSTRY 3534.—ELEVATORS AND MOVING STAIRWAYS			
	Materials, parts, containers, and supplies, total.....		(X)	108,235	(X)	62,717
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	18,516	3,281	9,088	1,733
331012	Sheet and strip.....	..do.....	20,199	3,481	11,671	2,027
331013	Plates.....	..do.....	8,868	1,439	6,983	1,028
331015	Structural shapes.....	..do.....	17,356	2,700	16,449	3,756
331017	Wire and wire products.....	..do.....	1,380	977	1,107	689
331019	All other carbon steel mill shapes and forms.....	..do.....	21,010	4,685	7,014	1,455
331020	Alloy steel (except stainless).....	..do.....	880	251	660	335
331031	Stainless steel.....	..do.....	588	723	395	906
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 pounds....	289	199	2,109	1,574
335790	Insulated wire and cable.....	1,000 pounds (copper content).....	2,787	2,026		
335102	Rod, bar, and mechanical wire including extruded and/or drawn shapes.....	1,000 pounds....	261	149	585	398
335123	Plate, sheet, and strip, including military cups and discs.....	..do.....	506	355		
335127	Pipe and tube.....	..do.....	826	533		

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3534.—ELEVATORS AND MOVING STAIRWAYS—Con.			
	Mill shapes and forms (except castings):—Continued					
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	1,000 pounds....	85	45	444	356
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	...do.....	439	224		
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	...do.....	77	33		
	Castings (rough and semifinished):					
332011	Iron (gray and malleable) <sup>1</sup> .....	Short tons.....	8,455	3,157	7,508	2,402
332300	Steel <sup>1</sup> .....	...do.....	1,300	1,173	1,610	1,275
336100	Aluminum and aluminum-base alloy <sup>1</sup> .....	1,000 pounds....	1,284	774	(NA)	(NA)
336200	Copper and copper-base alloy <sup>1</sup> .....	...do.....	960	880	214	171
339100	Iron and steel forgings <sup>1</sup> .....	Short tons.....	835	615	(NA)	(NA)
351901	Gasoline and other carburetor engines <sup>1</sup> .....	Number.....	(D)	(D)	(NA)	(NA)
	Electric motors and generators:					
362115	Fractional horsepower electric motors (under 1 hp.) (excluding timing motors) <sup>1</sup> .....	...do.....	12,783	779	6,988	375
362120	Integral horsepower motors and generators (1 hp. and over) <sup>1</sup> .....	...do.....	9,473	4,081	7,076	3,462
	Bearings:					
356218	Ball.....	.....	(X)	1,221	(NA)	(NA)
356228	Roller.....	.....	(X)	398	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	58,380	(X)	34,525
976000	Materials, parts, containers, and supplies, n.s.k. <sup>3</sup> .....	.....	(X)	15,676	(X)	6,250
			INDUSTRY 3535.—CONVEYORS			
	Materials, parts, containers, and supplies, total.....	.....	(X)	173,961	(X)	141,103
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	42,897	7,562	31,736	5,314
331012	Sheet and strip.....	...do.....	57,475	8,844	42,994	6,772
331013	Plates.....	...do.....	37,870	5,604	32,738	4,716
331015	Structural shapes.....	...do.....	46,670	7,994	40,053	6,487
331017	Wire and wire products.....	...do.....	1,723	902	2,471	658
331019	All other carbon steel mill shapes and forms.....	...do.....	28,030	5,422	13,376	2,862
331020	Alloy steel (except stainless).....	...do.....	4,361	1,356	2,250	733
331031	Stainless steel.....	...do.....	2,174	2,743	1,522	2,177
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 pounds....	68	37	139	109
335790	Insulated wire and cable.....	1,000 pounds (copper content).....	288	204		
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 pounds....	404	254	405	211
335123	Plate, sheet, and strip, including military cups and discs.....	...do.....	218	142		
335127	Pipe and tube.....	...do.....	2,369	1,555		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	...do.....	1,448	677	906	473
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	...do.....	1,669	1,037	283	268
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	...do.....	219	195		
	Castings (rough and semifinished):					
332011	Iron (gray and malleable) <sup>1</sup> .....	Short tons.....	12,323	5,211	13,847	5,229
332300	Steel <sup>1</sup> .....	...do.....	2,067	1,269	3,250	1,820
336100	Aluminum and aluminum-base alloy <sup>1</sup> .....	1,000 pounds....	757	820	(NA)	(NA)
336200	Copper and copper-base alloy <sup>1</sup> .....	...do.....	152	139	196	211
339100	Iron and steel forgings <sup>1</sup> .....	Short tons.....	3,700	2,743	(NA)	23,000
351901	Gasoline and other carburetor engines <sup>1</sup> .....	Number.....	856	211	1,748	121
	Electric motors and generators:					
362115	Fractional horsepower electric motors (under 1 hp.) (excluding timing motors).....	...do.....	36,506	2,649	18,015	1,219
362120	Integral horsepower motors and generators (1 hp. and over).....	...do.....	19,540	3,451	13,870	3,436
	Bearings:					
356218	Ball.....	.....	(X)	2,920	(NA)	(NA)
356228	Roller.....	.....	(X)	1,803		
369101	Storage batteries.....	Number.....	489	10	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	80,751	(X)	80,206
976000	Materials, parts, containers, and supplies, n.s.k. <sup>3</sup> .....	.....	(X)	27,456	(X)	15,081

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3536.—HOISTS, CRANES, AND MONORAILS			
	Materials, parts, containers, and supplies, total.....		(X)	101,430	(X)	78,611
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bar and bar shapes.....	Short tons.....	15,836	3,142	13,892	2,426
331012	Sheet and strip.....	..do.....	7,198	979	3,799	589
331013	Plates.....	..do.....	65,967	10,441	40,004	5,708
331015	Structural shapes.....	..do.....	47,407	7,250	27,313	4,202
331017	Wire and wire products.....	..do.....	1,127	644	853	538
331019	All other carbon steel mill shapes and forms.....	..do.....	12,202	2,956	5,422	1,186
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	1,547	561	882	230
331029	All other alloy steel mill shapes and forms.....	..do.....	669	521	1,069	199
331031	Stainless steel.....	..do.....	94	147	(NA)	(NA)
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 pounds....	293	175	107	70
335790	Insulated wire and cable.....	1,000 pounds (copper content).....	1,708	1,337	816	728
335102	Rod, bar, and mechanical wire including extruded and/or drawn shapes.....	1,000 pounds....	188	90	108	90
335123	Plate, sheet strip, including military cups and discs.....	..do.....	-	-		
335127	Pipe and tube.....	..do.....	1,075	540		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	..do.....	471	264	107	82
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	..do.....	284	179		
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	..do.....	35	29		
	Castings (rough and semifinished):					
332011	Iron (gray and malleable) <sup>1</sup> .....	..do.....	7,939	3,411	10,881	4,203
332300	Steel <sup>1</sup> .....	..do.....	6,214	4,295	5,202	3,303
336100	Aluminum and aluminum-base alloy <sup>1</sup> .....	1,000 pounds....	1,135	1,154	331	423
336200	Copper and copper-base alloy <sup>1</sup> .....	..do.....	988	711	822	472
339100	Iron and steel forgings <sup>1</sup> .....	Short tons.....	14,011	3,061	555	405
	Engines:					
351920	Diesel and semidiesel <sup>1</sup> .....	Number.....	49	284	28	160
351901	Gasoline and other carburetor <sup>1</sup> .....	..do.....	1,696	280	406	221
	Electric motors and generators:					
362115	Fractional horsepower electric motors (under 1 hp.) (excluding timing motors) <sup>1</sup> .....	..do.....	20,466	859	15,687	699
362120	Integral horsepower motors and generators (1 hp. and over) <sup>1</sup> .....	..do.....	20,986	7,165	11,719	4,170
	Bearings:					
356218	Ball.....	..do.....	(X)	974	(X)	245
356228	Roller.....	..do.....	(X)	1,775		
301131	Pneumatic tires.....	Number.....	3,375	157	(NA)	(NA)
301141	Inner tubes.....	..do.....	1,130	10	(NA)	(NA)
356601	Mechanical power transmission equipment, (except motor vehicle) including gears, clutches, etc.....	..do.....	(X)	4,793	(X)	(NA)
970099	All other materials and components, parts, containers and supplies consumed.....	..do.....	(X)	37,822	(X)	46,206
976000	Materials, parts, containers, and supplies, n.s.k. <sup>3</sup> .....	..do.....	(X)	5,424	(X)	2,056
			INDUSTRY 3537.—INDUSTRIAL TRUCKS AND TRACTORS			
	Materials, parts, containers, and supplies, total.....		(X)	192,548	(X)	119,560
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	42,477	7,200	22,651	3,652
331012	Sheet and strip.....	..do.....	43,394	6,351	15,076	2,316
331013	Plates.....	..do.....	54,092	7,724	28,645	4,078
331015	Structural shapes.....	..do.....	19,265	3,591	12,934	2,163
331017	Wire and wire products.....	..do.....	382	83	4,071	723
331019	All other carbon mill shapes and forms.....	..do.....	15,025	3,300	3,531	978
331020	Alloy steel (except stainless).....	..do.....	2,634	907	2,296	853
331031	Stainless steel.....	..do.....	439	599	154	185

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
INDUSTRY 3537.—INDUSTRIAL TRUCKS AND TRACTORS—Con.						
	Mill shapes and forms (except castings):—Continued					
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 pounds.....	44	42	223	155
335790	Insulated wire and cable.....	1,000 pounds (copper content).....	539	368		
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 pounds.....	28	29	128	95
335123	Plate, sheet, and strip, including military cups and discs.....	..do.....	24	19		
335127	Pipe and tube.....	..do.....	227	191		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	..do.....	1,402	725	536	475
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc....	..do.....	473	273		
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	..do.....	45	42		
	Castings (rough and semifinished):					
332011	Iron (gray and malleable) <sup>1</sup> .....	Short tons.....	33,716	8,392	24,060	5,578
332300	Steel <sup>1</sup> .....	..do.....	5,765	4,087	5,855	3,422
336100	Aluminum and aluminum-base alloy <sup>1</sup> .....	1,000 pounds.....	926	664	(NA)	(NA)
336200	Copper and copper-base alloy <sup>1</sup> .....	..do.....	146	126	359	348
339100	Iron and steel forgings <sup>1</sup> .....	Short tons.....	2,700	2,799	(NA)	<sup>2</sup> 2,000
351901	Gasoline and other carburetor engines <sup>1</sup> .....	Number.....	29,485	11,195	18,422	6,469
	Electric motors and generators:					
362115	Fractional horsepower electric motors (under 1 hp.) (excluding timing motors) <sup>1</sup> .....	..do.....	9,394	614	8,790	313
362120	Integral horsepower motors and generators (1 hp. and over) <sup>1</sup> .....	..do.....	21,748	2,317	7,542	911
	Bearings:					
356218	Ball.....	.....	(X)	1,949	(X)	<sup>2</sup> 3,000
356228	Roller.....	.....	(X)	1,776		
369101	Storage batteries.....	Number.....	33,617	2,796	18,857	2,235
970099	All other materials and components, parts, containers and supplies consumed.....	.....	(X)	110,029	(X)	67,501
976000	Materials, parts, containers, and supplies, n.s.k. <sup>3</sup> .....	.....	(X)	14,360	(X)	11,679

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

<sup>1</sup>In addition the quantities listed below were produced and incorporated into products at the same establishment:

Code	Item	Unit of measure for quantities	Industry											
			3531		3532		3533		3534	3535	3536		3537	
			1963	1958	1963	1958	1963	1958	1963	1963	1963	1958	1963	1958
332011	Castings (rough and semifinished): Iron (gray and malleable).....	Short tons	(NA)	3,862	12,187	3,628	3,883	4,031	(D)	9,769	-	297	(D)	1,805
332300	Steel.....	Short tons	(NA)	3,000	1,341	(NA)	1,636	1,273	(D)	(D)	-	350	(D)	(NA)
336100	Aluminum and aluminum-base alloy	1,000 lbs.	(D)	(D)	(D)	(NA)	-	(NA)	(D)	(D)	-	(D)	-	(NA)
336200	Copper and copper-base alloy....	...do.....	(D)	(D)	1,651	(NA)	(D)	(NA)	(D)	(D)	-	(D)	-	(NA)
339100	Iron and steel forgings.....	Short tons	34,026	3,955	(D)	(NA)	(D)	(D)	-	-	(D)	(D)	-	(NA)
351920	Engines: Diesel and semidiesel.....	Number....	(D)	16,330	-	(NA)	-	(NA)	(X)	(X)	-	(NA)	(X)	(NA)
351901	Gasoline and other carburetor...	Number....	9,415	8,326	(D)	(NA)	-	(D)	-	-	-	(NA)	-	(NA)
362115	Electric motors and generators: Fractional horsepower electric motors (under 1 hp.) (exclud- ing timing motors).....	...do.....	739	(D)	(D)	(NA)	(X)	(NA)	(D)	275	(D)	(D)	(D)	(NA)
362120	Integral horsepower motors and generators (1 hp. and over)....	...do.....	9,134	4,590	(D)	(NA)	(X)	(NA)	(D)	(D)	(D)	(D)	6,822	(NA)

<sup>2</sup>Represents estimates published in MC58(1)-7 (Supplement), Selected Materials Consumed, from data collected in a supplemental survey on Form MA-131, Consumption of Materials, Parts, Containers and Supplies, During 1958. This survey was limited to large establishments in selected chemical, machinery, and equipment industries and resulted in estimate which are subject to greater error than are the figures on materials consumption collected as a regular part of the census of manufactures.

<sup>3</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" when separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

Item	Construction machinery (SIC 3531)	Mining machinery and equipment (SIC 3532)	Oil field machinery (SIC 3533)	Elevators and moving stairways (SIC 3534)	Conveyors (SIC 3535)	Hoists, cranes, and monorails (SIC 3536)	Industrial trucks and tractors (SIC 3537)
Total cost of purchased fuels and electric energy.....\$1,000..	22,940	5,068	5,748	1,754	3,054	1,375	2,307
Total cost of purchased fuels.....do....	9,213	1,662	2,063	669	1,238	543	835
Bituminous coal, lignite, and anthracite:							
Quantity.....1,000 short tons..	425	41	(S)	(S)	22	17	23
Cost.....\$1,000..	2,969	394	(S)	(S)	215	148	185
Coke and breeze:							
Quantity.....1,000 short tons..	10	4	-	(S)	(S)	-	(S)
Cost.....\$1,000..	311	147	-	(S)	(S)	-	(S)
Fuel oil (distillate and residual):							
Quantity.....1,000 barrels of 42 gallons..	476	(S)	(S)	86	61	29	41
Cost.....\$1,000..	1,911	(S)	(S)	230	243	111	154
Gas (natural, manufactured, still, blast furnace, and coke oven):							
Quantity.....million cu.ft..	5,516	1,196	5,618	(S)	757	316	552
Cost.....\$1,000..	3,067	634	1,733	(S)	496	232	340
Other fuels.....do....	955	114	(S)	71	(S)	52	(S)
Electric energy:							
Purchased:							
Quantity.....million kw.-hrs..	1,132	(S)	320	60	103	55	106
Cost.....\$1,000..	13,727	(S)	3,685	1,085	1,816	832	1,472
Generated less sold.....million kw.-hrs..	7	6	-	(S)	-	-	-
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	933	221	298	57	114	92	73
Prime movers, total.....do....	89	20	30	6	12	19	15
Driving generators.....do....	23	8	3	4	1	1	(Z)
Not driving generators.....do....	66	12	27	2	11	18	15
Electric motors, total.....do....	850	211	268	54	102	73	58
Driven by purchased energy.....do....	844	202	268	51	102	73	58
Driven by energy generated at establishment.....do....	6	9	-	3	-	-	-
Aggregate horsepower per 100 production workers.....	1,308	1,865	1,603	1,039	897	1,595	674

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3531-	CONSTRUCTION MACHINERY										
	Entire industry.....	617	104,520	683,728	76,526	155,267	462,411	1,301,266	1,403,162	2,696,039	56,227
	Establishments with--										
	90% or more specialization..	485	65,796	432,770	47,955	97,577	291,600	780,800	979,069	1,749,579	40,290
	75-89% specialization.....	41	19,900	132,150	15,521	30,992	94,945	313,171	228,179	535,031	9,340
35311	Contractors' off-highway wheel tractors, except parts and attachments (primary product class of estab.).....	9	2,725	18,187	1,867	3,831	11,327	37,822	56,452	92,445	849
	Establishments with--										
	90% or more specialization....	-	-	-	-	-	-	-	-	-	-
	75-89% specialization.....	4	358	1,881	252	566	1,276	3,008	7,878	10,423	62
35314	Power cranes (including locomotives, full circle, revolving with booms) draglines, shovels, and parts (primary product class of estab.).....	58	22,805	147,141	16,090	32,972	98,461	263,242	254,946	533,113	8,120
	Establishments with--										
	90% or more specialization....	37	11,530	72,266	8,199	17,168	49,564	143,369	137,454	291,353	3,392
	75-89% specialization.....	10	5,584	37,125	3,997	7,852	24,549	61,272	72,057	138,439	2,581
35316	Mixers, pavers, and related equipment, excluding parts (primary product class of estab.).....	58	7,737	49,950	5,263	10,716	29,466	90,430	89,557	184,389	2,053
	Establishments with--										
	90% or more specialization....	15	248	1,608	183	387	1,070	2,513	2,580	5,075	166
	75-89% specialization.....	10	792	4,308	651	1,250	3,060	8,021	9,995	18,850	248
35317	Integral tractor-shovel loaders (wheels, tracklaying types), including parts (primary product class of estab.).....	14	12,600	88,016	9,332	18,496	61,193	131,604	211,603	342,322	10,502
	Establishments with--										
	75% or more.....	7	4,815	33,712	3,448	7,248	22,360	66,181	109,890	173,029	3,932
35318	Scrapers, graders, rollers and off-highway trucks, trailers, and wagons, excluding parts (primary product class of estab.).....	69	19,408	130,748	14,574	30,303	90,438	259,478	333,476	577,959	13,272
	Establishments with--										
	90% or more specialization....	21	1,930	10,990	1,385	2,787	7,016	21,577	37,143	57,857	3,243
	75-89% specialization.....	11	1,702	11,353	1,351	2,813	8,010	22,733	31,659	53,001	822
35319	Other construction machinery and equipment, including construction machinery parts, n.e.c. (primary product class of estab.).....	161	13,747	85,441	9,742	19,810	52,573	152,417	155,531	309,265	6,140
	Establishments with--										
	90% or more specialization....	89	4,479	28,991	3,134	6,641	16,934	58,933	58,286	114,290	2,769
	75-89% specialization.....	19	1,378	8,560	984	2,041	5,164	14,421	13,653	28,548	720
3532-	MINING MACHINERY AND EQUIPMENT										
	Entire industry.....	204	16,910	109,531	11,814	23,289	67,669	215,406	203,786	417,616	6,847
	Establishments with--										
	90% or more specialization..	156	5,938	38,040	4,178	8,342	23,809	85,489	76,853	161,197	2,289
	75-89% specialization.....	14	2,137	12,056	1,560	3,204	7,962	20,420	14,697	36,485	959
35321	Underground mining machinery and related mining equipment (primary product class of estab.).....	35	5,141	33,349	3,618	6,765	21,097	59,896	60,120	120,927	1,220
	Establishments with--										
	90% or more specialization....	17	604	3,396	437	801	1,990	9,137	6,503	15,423	182
35322	Crushing, pulverizing and screening plants, stationary (primary product class of estab.).....	17	2,208	16,245	1,417	2,903	8,481	32,964	33,394	66,965	1,060
	Establishments with--										
	90% or more specialization....	8	371	2,389	238	473	1,337	4,726	4,005	8,455	211

See footnotes at end of table.

**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued**

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3532-	MINING MACHINERY AND EQUIPMENT—Continued										
35323	All other mining machinery (complete units), (primary product class of estab.).....	22	680	3,870	546	1,061	2,590	9,260	6,701	16,075	157
	Establishments with--										
	90% or more specialization....	10	193	1,099	151	315	785	3,319	2,335	5,603	67
	75-89% specialization.....	4	146	867	132	208	480	2,849	1,375	4,217	(D)
35324	Parts and attachments for mining machinery and equipment (primary product class of estab.).....	67	7,745	49,162	5,420	10,965	30,837	100,644	85,114	181,480	3,836
	Establishments with--										
	90% or more specialization....	44	1,528	9,867	1,123	2,228	6,326	21,874	16,177	37,617	844
3533-	OIL FIELD MACHINERY										
	Entire industry.....	408	29,203	184,288	20,114	41,409	113,526	398,152	264,350	666,532	11,321
	Establishments with--										
	90% or more specialization..	349	19,066	121,933	13,046	26,708	75,840	279,433	164,595	449,292	7,900
	75-89% specialization.....	21	4,238	25,828	3,105	6,449	16,888	51,600	42,181	92,984	1,656
35331	Rotary oil and gas field drilling machinery and equipment (primary product class of estab.).....	77	10,744	69,868	7,079	14,527	41,204	163,110	77,923	245,473	3,880
	Establishments with--										
	90% or more specialization....	54	8,152	53,624	5,376	10,921	31,673	133,459	51,689	189,575	2,941
	75-89% specialization.....	11	1,318	7,940	904	1,864	4,942	17,747	13,323	30,430	520
35332	Other oil and gas field drilling machinery and equipment (primary product class of estab.).....	22	1,474	10,138	968	1,954	5,739	18,934	10,923	29,339	680
	Establishments with--										
	90% or more specialization....	15	473	3,052	370	762	2,239	6,021	2,844	8,821	259
35333	Oil and gas field production machinery and equipment (except pumps) (primary product class of estab.).....	180	13,396	83,195	9,509	19,323	52,930	177,575	140,080	317,925	5,388
	Establishments with--										
	90% or more specialization....	140	4,211	26,051	2,731	5,753	15,281	59,089	47,121	106,448	2,220
	75-89% specialization.....	13	2,908	17,871	2,344	4,534	13,222	35,679	31,998	67,572	688
35334	Other oil and gas field machinery and tools (except pumps), including water wells (primary product class of estab.).....	36	2,989	17,627	2,113	4,667	11,278	31,552	30,936	62,247	1,029
	Establishments with--										
	90% or more specialization....	14	338	1,855	267	513	1,253	2,949	2,297	5,395	107
	75-89% specialization.....	8	898	5,133	649	1,446	3,328	4,617	6,343	11,561	214
3535-	CONVEYORS										
	Entire industry.....	454	20,778	140,617	12,642	26,312	74,020	270,475	231,080	494,632	6,125
	Establishments with--										
	90% or more specialization..	362	11,031	73,501	7,062	14,725	41,851	135,457	113,105	246,786	3,423
	75-89% specialization.....	29	3,708	28,012	2,002	4,260	12,193	58,119	44,140	99,300	1,291
35351	Conveyors and conveying equipment (except hoists and farm elevators) (primary product class of estab.).....	229	17,645	121,903	10,564	22,195	63,094	233,092	202,082	429,362	4,791
	Establishments with--										
	90% or more specialization....	130	5,598	38,477	3,507	7,474	21,799	70,510	58,407	128,342	1,834
	75-89% specialization.....	33	1,949	11,781	1,205	2,539	6,278	21,774	20,836	41,940	515
35352	Parts, attachments and accessories for conveyors and systems (sold separately) (primary product class of estab.).....	37	2,032	12,896	1,320	2,652	7,211	26,333	19,841	45,156	838
	Establishments with--										
	90% or more specialization....	26	839	4,711	616	1,237	2,949	9,709	7,859	17,553	424

See footnotes at end of table.



TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3536-	HOISTS, CRANES, AND MONORAILS										
	Entire industry.....	120	9,585	64,301	6,776	13,980	41,433	112,327	110,949	220,015	2,644
	Establishments with--										
	90% or more specialization..	98	5,462	35,826	3,733	7,678	22,283	64,463	58,024	119,272	1,466
	75-89% specialization.....	8	1,857	11,948	1,418	2,774	8,093	18,737	25,857	45,408	725
35361	Hoists (primary product class of estab.).....	54	3,319	20,363	2,379	4,782	13,477	41,963	35,470	76,672	1,309
	Establishments with--										
	90% or more specialization....	37	1,223	7,890	882	1,771	5,114	16,509	9,971	25,847	484
	75-89% specialization.....	8	975	5,307	695	1,375	3,400	13,000	14,010	26,983	574
35362	Overhead traveling cranes and monorail systems (primary product class of estab.).....	41	6,136	43,048	4,312	9,024	27,463	69,156	74,219	140,837	1,289
	Establishments with--										
	90% or more specialization....	29	2,239	15,553	1,454	2,967	8,822	23,694	30,249	52,748	383

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation				
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>			
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more	
		INDUSTRY 3531.—CONSTRUCTION MACHINERY							
Ferrous foundry.....	16	1	3	12	2,987	(D)	(D)	2,954	
Nonferrous foundry (except die casting).....	4	2	2	-	16	(D)	(D)	-	
Forging--presses, hammers, or upsetters.....	32	19	10	3	319	30	95	194	
Heat treating of metals.....	83	59	13	11	1,050	110	131	809	
Automatic screw machine department.....	29	18	5	6	542	29	44	469	
Machine shop.....	289	81	89	119	17,531	138	902	16,491	
Tool and die shop.....	99	50	30	19	1,931	87	288	1,556	
Foundry pattern shop.....	31	16	12	3	313	21	96	196	
Plate or structural fabrication.....	213	55	61	97	10,793	116	619	10,058	
Stamping, blanking and forming of metals.....	114	59	33	22	2,570	102	287	2,181	
Painting, lacquering and enameling on metals.....	255	188	43	24	1,617	333	356	928	
Assembly of product.....	256	74	82	100	8,688	128	780	7,780	
		INDUSTRY 3532.—MINING MACHINERY AND EQUIPMENT							
Ferrous foundry.....	13	2	1	10	749	(D)	(D)	730	
Nonferrous foundry (except die casting).....	2	-	2	-	(D)	-	(D)	-	
Forging--presses, hammers, or upsetters.....	22	16	5	1	81	27	(D)	(D)	
Heat treating of metals.....	36	27	7	2	156	47	(D)	(D)	
Automatic screw machine department.....	8	3	4	1	117	5	(D)	(D)	
Machine shop.....	91	27	34	30	3,080	46	397	2,637	
Tool and die shop.....	16	11	1	4	152	(D)	(D)	113	
Foundry pattern shop.....	18	12	4	2	116	21	(D)	(D)	
Plate or structural fabrication.....	56	21	17	18	1,236	27	165	1,044	
Stamping, blanking and forming of metals.....	25	19	2	4	224	(D)	(D)	172	
Painting, lacquering and enameling on metals.....	63	54	6	3	178	76	33	69	
Assembly of product.....	65	30	20	15	1,066	54	175	837	
		INDUSTRY 3533.—OIL FIELD MACHINERY							
Ferrous foundry.....	8	3	3	2	120	6	(D)	(D)	
Forging--presses, hammers, or upsetters.....	22	8	8	6	298	22	61	215	
Heat treating of metals.....	60	43	15	2	337	76	(D)	(D)	
Automatic screw machine department.....	20	12	6	2	138	22	(D)	(D)	
Machine shop.....	172	36	63	73	7,304	71	635	6,598	
Tool and die shop.....	41	12	22	7	613	29	208	376	
Plate or structural fabrication.....	70	30	23	17	1,130	50	241	839	
Stamping, blanking and forming of metals.....	38	25	11	2	158	34	(D)	(D)	
Painting, lacquering and enameling on metals.....	102	87	15	-	264	135	129	-	
		INDUSTRY 3534.—ELEVATORS AND MOVING STAIRWAYS							
Ferrous foundry.....	3	1	1	1	(D)	(D)	(D)	(D)	
Nonferrous foundry (except die casting).....	2	2	-	-	(D)	(D)	-	-	
Heat treating of metals.....	2	1	1	-	(D)	(D)	(D)	-	
Automatic screw machine department.....	5	2	3	-	36	(D)	(D)	-	
Machine shop.....	57	23	17	17	1,189	45	152	992	
Tool and die shop.....	19	12	4	3	159	23	34	102	
Foundry pattern shop.....	2	1	1	-	(D)	(D)	(D)	-	
Plate or structural fabrication.....	46	19	17	10	631	42	160	429	
Stamping, blanking and forming of metals.....	34	19	12	3	390	31	(D)	(D)	
Painting, lacquering and enameling on metals.....	48	40	6	2	209	52	(D)	(D)	
		INDUSTRY 3535.—CONVEYORS							
Ferrous foundry.....	4	-	1	3	284	-	(D)	(D)	
Nonferrous foundry (except die casting).....	3	2	1	-	12	(D)	(D)	-	
Forging--presses, hammers, or upsetters.....	5	4	1	-	16	(D)	(D)	-	
Heat treating of metals.....	12	10	2	-	28	(D)	(D)	-	
Automatic screw machine department.....	15	11	4	-	54	25	29	-	
Machine shop.....	168	87	60	21	1,777	153	568	1,056	
Tool and die shop.....	35	23	11	1	177	47	(D)	(D)	
Foundry pattern shop.....	6	4	2	-	21	(D)	(D)	-	
Plate or structural fabrication.....	161	52	59	50	3,549	102	556	2,891	
Stamping, blanking and forming of metals.....	99	55	25	19	867	106	235	526	
Painting, lacquering and enameling on metals.....	153	139	14	-	320	212	108	-	

See footnotes at end of table.



TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963—Continued

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3536.—HOISTS, CRANES, AND MONORAILS							
Forging--presses, hammers, or upsetters.....	2	-	2	-	(D)	-	(D)	-
Heat treating of metals.....	8	6	2	-	27	(D)	(D)	-
Automatic screw machine department.....	8	7	1	-	21	(D)	(D)	-
Machine shop.....	56	20	13	23	1,736	38	148	1,550
Tool and die shop.....	14	5	6	3	156	8	81	67
Foundry pattern shop.....	9	6	2	1	50	9	(D)	(D)
Plate or structural fabrication.....	52	19	17	16	1,257	41	195	1,021
Stamping, blanking and forming of metals.....	20	12	5	3	151	17	42	92
Painting, lacquering and enameling on metals.....	55	45	10	-	162	68	94	-
Assembly of product.....	56	23	16	17	1,408	55	170	1,183
	INDUSTRY 3537.—INDUSTRIAL TRUCKS AND TRACTORS							
Ferrous foundry.....	4	1	2	1	79	(D)	(D)	(D)
Nonferrous foundry (except die casting).....	1	1	-	-	(D)	(D)	-	-
Forging--presses, hammers, or upsetters.....	5	4	1	-	24	(D)	(D)	-
Heat treating of metals.....	13	9	3	1	70	15	(D)	(D)
Automatic screw machine department.....	15	9	5	1	72	11	(D)	(D)
Machine shop.....	83	33	31	19	2,093	67	258	1,768
Tool and die shop.....	27	13	10	4	252	28	108	116
Foundry pattern shop.....	3	3	-	-	3	3	-	-
Plate or structural fabrication.....	84	28	28	28	1,945	70	326	1,549
Stamping, blanking and forming of metals.....	71	38	26	7	685	65	239	381
Painting, lacquering and enameling on metals.....	106	87	17	2	336	135	(D)	(D)

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below.

Item	INDUSTRY						
	3531	3532	3533	3534	3535	3536	3537
Total number of establishments in the industry.....	617	204	408	142	454	120	314
Number of establishments which reported one or more of the specified operations.....	353	114	217	84	242	74	142
Percent of industry production workers in these establishments.....	90-95	85-90	80-85	80-85	85-90	95-100	85-90
Number of establishments which reported "none" of the operations apply...	14	7	14	6	13	4	12
Percent of industry production workers in these establishments.....	0-5	0-5	0-5	0-5	0-5	0-5	0-5
Percent of industry production workers in establishments which completed metalworking operations inquiry.....	90-95	85-90	80-85	80-85	90-95	95-100	90-95

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishments.

## METALWORKING MACHINERY AND EQUIPMENT

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3541—Machine Tools, Metal-Cutting Types
- 3542—Machine Tools, Metal-Forming Types
- 3544—Special Dies and Tools, Die Sets, Jigs, and Fixtures
- 3545—Machine Tool Accessories and Measuring Devices
- 3548—Metalworking Machinery, Except Machine Tools

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

These five industries include plants primarily engaged in the production of machines, tools, and equipment for use principally in fabricating metal products. The machinery and equipment included in these industries encompass the entire range of metalworking processes utilizing cutting and forming operations. Plants in industries 3541, 3542, and 3548 produce complete machines such as lathes, drilling machines, grinding and polishing machines, presses, die-casting machines, and rolling-mill equipment; plants in industries 3544 and 3545 manufacture equipment and tools for use with those machines, such as dies, jigs, fixtures, cutting tools, work holding devices, industrial molds, and precision measuring instruments.

As a means of providing for consistent reporting of machinery produced on a subcontract basis, machine tool and metalworking machinery manufacturers were instructed to include in their report all machines produced for them by others on a subcontract basis. Conversely, the plants producing such machines were instructed to exclude such products from their shipments reports and to show all receipts for subcontract work as "receipts for work done for others on their own materials."

### 3541—MACHINE TOOLS, METAL-CUTTING TYPES

This industry comprises establishments primarily engaged in manufacturing power-driven machines, not supported in the hands of an operator when in use, that shape metal by cutting or use of electrical techniques; the rebuilding of such machine tools, and the manufacture of replacement parts for them. Metalworking, or primarily metalworking machine tools designed primarily for home workshops are also included. Establishments primarily engaged in the manufacture of electric welding equipment are classified in industry 3623; and portable power-driven hand tools, machinery and gas welding and cutting equipment,



and automotive maintenance equipment in industry 3548. For a detailed list of products of industry 3541, refer to table 6A, product codes 3541111 to 3541941.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Metal-Cutting Machine Tools Industry totaled \$1,061 million. This amount included shipments of machine tools, metal-cutting types (primary products), valued at \$805 million, shipments of other products (secondary products) valued at \$188 million, and miscellaneous receipts (largely products bought and resold) at \$68 million.

This industry's shipments of metal-cutting machine tools represented 81 percent of its total product shipments. The industry specialization ratio in 1958 was 85 percent. Secondary products shipped by this industry in 1963 include small cutting tools for machine tools and metalworking machinery (\$30 million), and other attachments and accessories for machine tools and metalworking machinery (\$28 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 26 percent of the total industry shipments are represented by plants specializing in lathes; and 16 percent in milling machines.

Shipments of machine tools, metal-cutting types, by this industry represented 87 percent of all shipments of these products (\$925 million) by all industries. In 1958 the coverage ratio was 89 percent. Other industries shipping machine tools, metal-cutting type, include industry 3545, Machine Tool Accessories, \$29 million; and industry 3542, Metal-Forming Machine Tools, \$5 million.

While machine tools are usually built for industrial purposes, some types of small size, light construction, and low price are designed primarily for the home workshop, the laboratory, the service shop, or the like. Light machine tools, usually of more precise construction than the home workshop type, are also used in industrial plants, either in batteries to accomplish the same purpose as one or two heavier machine tools, as accessory equipment in the company's machine shop, as "standby machines," or for special types of work. In some industries where a light machine tool more adequately serves the purpose at hand, this type of tool is part of the main production line. Home workshop tools may be used incidentally in industrial establishments, but this is the exception rather than the rule. Home workshop machine tools (other than power-driven hand tools) which were designed primarily for metalworking or for use on metal and wood are classified in industry 3541. However, those that are designed primarily for woodworking are classified in industry 3553, Woodworking Machinery.

The product detail shown in table 6A is essentially the same as that published in Current Industrial Report Series M35W, Machine Tools. The Current Industrial Report does not include data on machines designed primarily for home workshops, garages, service shops, etc., nor does it include figures for rebuilt machine tools.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3541, e.g., lathes, 96 percent; other machine tools (including those designated primarily for home workshops, laboratories, etc.), 77 percent; boring machines, 94 percent; parts for metal-cutting type machine tools sold separately and rebuilt machine tools, 82 percent.

The production index for the primary products of the industry increased to 82 in 1963 from the 1958 level of 52. The unit value index for 1963 was 112 compared to 113 in 1958. Both indexes were computed on a basis of 1954 = 100.

### 3542—MACHINE TOOLS, METAL-FORMING TYPES

This industry comprises establishments primarily engaged in manufacturing power-driven machines, not supported in the hands of an operator while in use, for pressing, forging, hammering, extruding, shearing, bending, or die casting metal into shape. This industry also includes rebuilding such machine tools and manufacturing repair parts for them. Establishments primarily engaged in the manufacture of electric welding equipment are classified in industry 3623; portable power-driven hand tools, machinery and gas welding and cutting equipment, and automotive maintenance equipment in industry 3548. For a detailed list of products of industry 3842, refer to table 6A, product codes 3542411 to 3542475.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Metal-Forming Machine Tools Industry totaled \$441 million. This amount included shipments of machine tools, metal-forming types (primary products) valued at \$351 million, shipments of other products (secondary products) valued at \$58 million, and miscellaneous receipts at \$33 million.

This industry's shipments of metal-forming machine tools represented 86 percent of its total product shipments. The industry specialization ratio in 1958 was 82 percent. Secondary products shipped by this industry in 1963 include special dies and tools, die sets, jigs, and fixtures (\$20 million), and parts for metal-cutting type machine tools, sold separately, and rebuilt machine tools (\$3 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 39 percent of the total industry shipments are represented by plants specializing in presses, including forging presses; and 20 percent in punching, shearing, bending, and forming machines.

Shipments of machine tools, metal-forming types, by this industry in 1963 represented 79 percent of all shipments of these products (\$445 million) by all industries. In 1958 the coverage ratio was 80 percent. Other industries shipping machine tools, metal-forming types, include industry 3541, Metal-Cutting Machine Tools, \$17 million; and industry 3548, Metalworking Machinery, N.E.C., over \$12 million.

The product detail shown in table 6A is essentially the same as that collected by the Bureau of the Census each year since 1950 and published in the Current Industrial Report Series M35W, Metalworking Machinery. The Current Industrial Report does not include data on rebuilt machines.

### 3544—SPECIAL DIES AND TOOLS, DIE SETS, JIGS, AND FIXTURES

This industry comprises establishments primarily engaged in manufacturing, on a job or order basis, special tools and fixtures for use with machine tools, hammers, die casting machines, and presses. The products of establishments classified in this industry include a wide variety of special toolings, such as dies; punches; die sets and components, and subpresses; jigs and fixtures; and special checking devices. Establishments primarily engaged in manufacturing metal molds for use with foundry plaster working, rubber working, plastic working, glass working, and similar machinery are also included. For a detailed list of products of industry 3544, refer to table 6A, product codes 3544112 to 3544263.



This industry comprises establishments commonly known as contract tool and die shops; also included are captive tool and die shops of metal-products producers, where such shops were separately operated and separate reports were filed. However, the total value of shipments excludes the captive production of tool and die departments making these products for the exclusive use of the producing establishment.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Special Dies and Tools Industry totaled \$1,389 million. This amount included shipments of special dies and tools, die sets, jigs, and fixtures (primary products) valued at \$1,164 million, shipments of other products (secondary products) valued at \$85 million, and miscellaneous receipts (mainly contract work on materials owned by others) at \$139 million.

This industry's shipments of special dies and tools represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was also 93 percent. Secondary products shipped by this industry in 1963 include carburetors, pistons, and other machine shop products (\$12 million), and job stampings, except automotive (\$11 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 66 percent of the total industry shipments are represented by plants specializing in special dies and tools, die sets, jigs, and fixtures; and 15 percent in industrial molds.

Shipments of special dies and tools, die sets, jigs, and fixtures by this industry represented 72 percent of all shipments of these products (\$1,608 million) by all industries. In 1958 the coverage ratio was 69 percent. Other industries shipping special dies and tools, die sets, jigs, and fixtures include industry 3461, Metal Stampings, \$66 million; and industry 3545, Machine Tool Accessories, \$22 million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3544, e.g., industrial molds, 83 percent; and special dies and tools, die sets, jigs, and fixtures, 67 percent.

#### 3545—MACHINE TOOL ACCESSORIES AND MEASURING DEVICES

This industry comprises establishments primarily engaged in manufacturing cutting tools, machinists' precision measuring tools, and attachments and accessories for machine tools and for other metalworking machinery, n.e.c. For a detailed list of products of industry 3545, refer to table 6A, product codes 3545113 to 3545351.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Machine Tool Accessories Industry totaled \$787 million. This amount included shipments of machine tool accessories and measuring devices (primary products) valued at \$616 million, shipments of other products (secondary products) valued at \$122 million, and miscellaneous receipts (mainly products bought and resold) at \$50 million.

This industry's shipments of machine tool accessories represented 83 percent of its total product shipments. The industry specialization ratio in 1958 was 85 percent. Secondary products shipped by this industry in 1963 include special dies and tools, die sets, jigs, and fixtures (\$22 million), and other machine tools (including those designed primarily for home workshops, laboratories, etc.) (\$10 million).

While the primary products of the industry represent more than once class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent to this specialization is indicated in table 8. Approximately 71 percent of the total industry shipments are represented by plants specializing in small cutting tools for machine tools and metalworking machinery.

Shipments of machine tool accessories and measuring devices by this industry represented 84 percent of all shipments of these products (\$732 million) by all industries. In 1958 the coverage ratio was 85 percent. Another industry shipping machine tool accessories and measuring devices was industry 3541, Metal-Cutting Machine Tools, \$69 million.

#### 3548—METALWORKING MACHINERY, EXCEPT MACHINE TOOLS

This industry comprises establishments primarily engaged in manufacturing metalworking machinery such as rolling mill machinery and equipment, power-driven hand tools, welding equipment, wire fabricating machinery and equipment, and automotive maintenance machinery and equipment. Establishments primarily engaged in manufacturing machine tools, metal-cutting types, are classified in industry 3541, and those primarily engaged in manufacturing machine tools, metal-forming types, in industry 3542. For a detailed list of products of industry 3548, refer to table 6A, product codes 3548115 to 3548598.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Metalworking Machinery, N.E.C., Industry totaled \$796 million. This amount included shipments of metalworking machinery, except machine tools, and power-driven hand tools (primary products) valued at \$616 million, shipments of other products (secondary products) valued at \$109 million, and miscellaneous receipts (mainly products bought and resold) at \$72 million.

This industry's shipments of metalworking machinery, n.e.c., represented 85 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 include hoists (\$7 million), and fractional horsepower motors (\$7 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent to this specialization is indicated in table 8. Approximately 46 percent of the total industry shipments are represented by plants specializing in power-driven hand tools; and 35 percent in rolling mill machinery and equipment.

Shipments of metalworking machinery, except machine tools, and power-driven hand tools by this industry in 1963 represented 88 percent of all shipments of these products (\$702 million) by all industries. In 1958 the coverage ratio was 85 percent.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3548, e.g., automobile maintenance equipment, 73 percent; acetylene welding and cutting apparatus, 78 percent; and other metalworking machinery, 75 percent.



# METALWORKING MACHINERY: SIC 354 Value Added by Manufacture by State: 1963

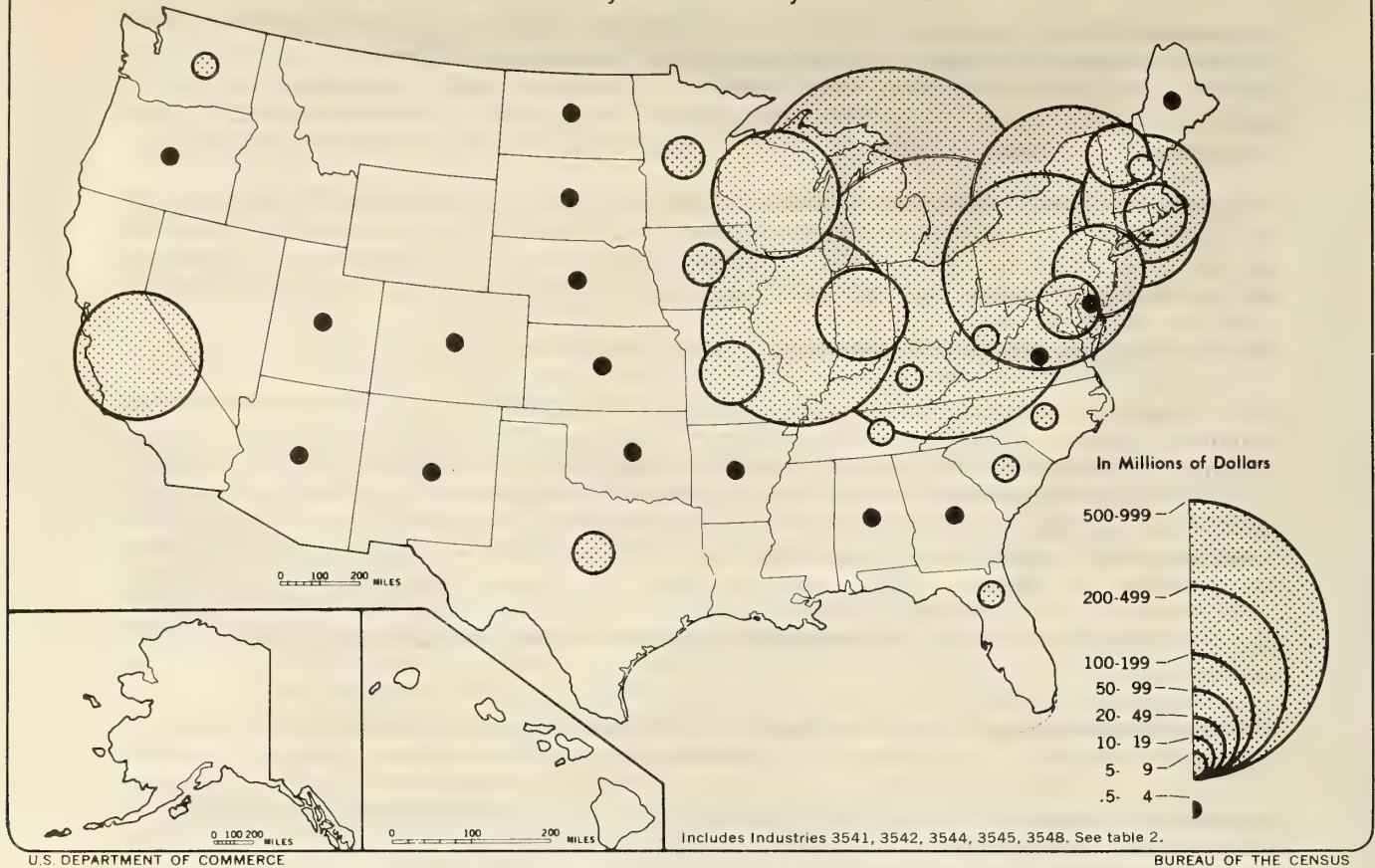


TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new (\$1,000)	Spec- ial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3541.--METAL-CUTTING MACHINE TOOLS														
1963.....	784	801	269	61,058	438,222	41,008	86,486	272,243	699,341	381,566	1,060,818	28,837	81	87
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	58,855	401,810	39,253	81,217	235,035	670,989	332,974	982,118	26,643	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	54,901	352,976	36,373	72,714	201,457	550,119	281,459	828,413	18,668	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	58,777	370,894	39,487	80,918	223,825	578,210	311,832	881,676	24,770	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	52,797	329,497	35,436	72,165	201,991	505,433	262,198	753,784	22,152	(NA)	(NA)
1958.....	611	627	231	52,864	300,344	36,154	69,619	182,171	420,961	217,738	679,836	18,840	85	89
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	79,895	470,886	59,611	125,419	319,313	797,541	403,473	1,209,071	39,653	84	90
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	85,469	511,928	65,208	147,464	360,577	882,188	441,524	1,270,470	49,178	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	77,063	426,565	58,598	128,099	297,216	690,980	345,447	1,007,752	44,031	(NA)	(NA)
1954.....	627	639	266	80,959	432,290	62,106	133,247	302,682	743,569	377,535	1,171,543	37,683	84	93
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	99,494	537,623	76,840	175,280	392,647	1,000,049	541,325	1,541,374	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	102,735	524,516	79,471	194,611	385,315	1,003,344	562,680	1,566,024	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	83,855	396,368	64,029	155,667	280,955	588,863	364,261	953,124	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	54,747	226,772	41,555	88,644	150,585	316,740	169,922	486,662	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	52,384	190,369	38,584	74,537	120,009	272,732	122,304	395,035	(NA)	(NA)	(NA)
1947.....	312	315	209	70,001	233,997	54,435	113,432	165,003	343,198	150,655	493,853	(NA)	77	86
1939.....	(NA)	224	(NA)	(NA)	(NA)	36,997	(NA)	62,867	155,941	65,326	221,267	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	205	(NA)	(NA)	(NA)	37,477	(NA)	62,610	143,224	59,515	202,739	(NA)	(NA)	(NA)
INDUSTRY 3542.--METAL-FORMING MACHINE TOOLS														
1963.....	362	366	146	22,078	161,669	15,782	34,633	107,381	281,287	165,376	441,419	10,792	86	79
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,396	171,980	18,409	37,041	109,504	265,841	180,740	448,210	(12,653)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,207	158,226	18,260	34,790	101,127	221,666	174,939	413,492	7,747	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,423	152,140	17,952	35,833	100,930	237,602	156,865	384,044	12,599	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,294	146,592	17,896	35,027	94,691	232,018	141,093	357,712	9,667	(NA)	(NA)
1958 <sup>3</sup> .....	279	291	147	22,502	132,368	15,572	30,905	82,192	176,021	130,143	317,657	11,723	82	80
INDUSTRY 3544.--SPECIAL DIES AND TOOLS														
1963.....	5,850	5,896	1,133	90,860	682,739	76,002	169,313	543,033	1,029,338	373,320	1,388,794	53,343	93	72
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	101,176	706,560	84,163	184,908	552,953	1,106,596	393,767	1,488,331	(49,241)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	90,386	605,328	74,253	156,312	460,027	901,537	312,271	1,201,883	(36,832)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	93,246	638,151	76,819	163,268	491,783	966,547	342,883	1,314,972	(38,289)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	89,445	597,853	74,241	158,205	465,009	932,025	311,407	1,235,014	(29,075)	(NA)	(NA)
1958 <sup>3</sup> .....	5,715	5,745	994	83,308	536,588	68,916	139,877	415,241	780,090	275,030	1,060,566	43,242	93	69
INDUSTRY 3545.--MACHINE TOOL ACCESSORIES														
1963.....	983	1,038	347	46,994	312,799	34,560	72,037	208,086	559,258	234,501	787,338	22,784	83	84
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	48,730	316,102	35,694	75,126	205,410	570,061	244,610	809,326	22,247	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	44,980	273,865	32,277	66,344	172,426	474,053	195,474	667,122	17,666	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	46,732	283,647	33,972	71,541	182,709	495,551	179,158	682,139	17,992	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	45,108	266,928	33,291	68,275	174,789	458,275	182,404	634,514	15,428	(NA)	(NA)
1958.....	865	905	297	41,521	226,949	29,304	56,299	143,663	348,580	143,142	511,456	15,277	85	85
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	52,203	293,874	39,369	81,691	199,832	472,602	199,651	650,032	25,185	87	74
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	48,344	265,326	37,181	79,194	183,429	472,352	175,101	630,558	20,354	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	45,202	230,769	34,837	72,429	158,733	403,554	150,220	544,410	17,121	(NA)	(NA)
1954 <sup>2</sup> .....	1,007	1,022	307	44,877	212,665	34,467	69,871	146,854	341,399	133,154	486,764	16,598	87	74
INDUSTRY 3548.--METALWORKING MACHINERY, N.E.C.														
1963.....	420	435	168	38,012	246,242	28,257	57,094	161,837	468,435	328,359	796,327	20,957	85	88
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	36,040	223,655	26,324	52,502	145,816	429,296	270,977	680,747	11,085	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	34,870	209,781	24,984	49,004	134,766	368,399	267,557	661,746	14,157	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	36,199	215,827	26,092	52,441	141,494	409,682	267,187	656,553	18,366	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	34,819	197,710	25,010	49,566	127,107	362,136	239,341	610,922	11,095	(NA)	(NA)
1958 <sup>3</sup> .....	349	362	143	33,328	183,307	24,384	46,915	120,444	332,397	241,230	602,015	16,634	91	85

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: **All employees:** For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). **Production workers:** For 1947 and prior years figures represent an average of 12 monthly figures. **Value added:** Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. **Cost of materials:** Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. **Value of shipments:** Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>2</sup>Comparable data are not available for earlier years.

<sup>3</sup>A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification; therefore, the data for 1958-1963 are not comparable with those for earlier years.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3541.—METAL-CUTTING MACHINE TOOLS													
Total.....	801	269	61,058	438,222	41,008	86,486	272,243	699,341	381,566	1,060,818	28,837	52,864	420,961
New England.....	111	39	14,853	102,430	10,303	21,333	63,121	159,523	82,127	238,161	5,962	12,134	88,982
Vermont.....	5	4	3,692	25,166	2,430	4,920	14,056	38,015	18,358	54,977	1,998	3,289	18,528
Connecticut.....	60	19	4,326	32,202	3,337	7,203	23,161	52,626	35,912	87,948	1,353	3,699	32,522
Middle Atlantic....	163	40	7,106	49,697	5,291	11,084	34,045	89,429	33,387	120,132	3,852	6,322	48,081
New York.....	66	19	5,045	36,239	3,728	7,676	24,665	66,626	22,369	86,644	2,522	4,756	36,944
New Jersey.....	49	9	532	3,574	404	878	2,454	5,611	3,430	9,093	220	471	3,651
Pennsylvania.....	48	12	1,529	9,884	1,159	2,530	6,926	17,192	7,588	24,395	1,110	1,095	7,486
East North Central.	387	161	36,845	271,313	23,762	50,596	165,457	424,507	250,732	661,678	17,811	32,509	267,130
Ohio.....	102	43	15,343	110,025	9,210	19,271	64,335	178,527	97,713	272,944	6,402	15,063	121,456
Indiana.....	19	5	1,634	11,654	1,284	2,934	8,796	19,649	11,784	29,920	704	1,344	12,627
Illinois.....	84	36	6,691	47,981	4,315	9,736	28,159	71,937	41,259	109,153	1,981	6,281	50,946
Michigan.....	151	58	7,978	64,233	5,710	12,183	42,610	102,270	66,006	164,169	4,607	5,587	45,705
Wisconsin.....	31	19	5,199	37,420	3,243	6,472	21,557	52,124	33,970	85,492	4,117	4,234	36,396
West North Central.	24	11	547	3,380	431	886	2,257	4,912	2,771	7,701	368	912	6,796
Minnesota.....	7	4	158	1,009	123	244	652	1,539	461	1,980	89	555	4,146
South.....	26	4	463	2,709	373	843	2,023	5,930	3,182	8,875	293	465	5,011
Texas.....	10	2	204	1,191	167	382	933	2,830	1,562	4,358	69	( <sup>2</sup> )	( <sup>2</sup> )
Mountain.....	7	1	54	273	45	89	207	402	125	523	21	522	4,961
Pacific.....	83	13	1,190	8,420	803	1,655	5,133	14,638	9,242	23,748	530		
California.....	76	12	1,097	7,922	734	1,540	4,777	14,170	8,573	22,582	494		
INDUSTRY 3542.—METAL-FORMING MACHINE TOOLS													
Total.....	366	146	22,078	161,669	15,782	34,633	107,381	281,287	165,376	441,419	10,792	22,502	176,021
New England.....	39	13	2,081	14,292	1,527	3,195	9,064	23,279	12,983	35,370	769	2,242	16,749
Massachusetts....	7	1	127	722	118	239	625	965	498	1,436	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Connecticut.....	28	10	1,821	12,916	1,287	2,700	7,958	21,316	11,727	31,942	690	1,920	14,578
Middle Atlantic....	88	28	4,512	31,653	3,058	6,558	19,678	58,561	35,227	92,341	3,266	4,773	33,635
New York.....	39	11	2,455	18,182	1,608	3,513	11,064	33,078	16,076	47,725	1,191	2,646	16,871
New Jersey.....	25	8	464	3,053	339	736	2,123	4,966	3,610	8,616	152	1,104	9,346
Pennsylvania.....	24	9	1,593	10,418	1,111	2,309	6,491	20,517	15,541	36,000	1,923	1,023	7,418
East North Central.	158	78	12,570	95,825	9,022	20,200	64,745	166,647	100,044	264,035	5,772	13,231	106,966
Ohio.....	39	20	3,433	24,438	2,352	5,275	15,280	51,584	29,298	80,629	2,689	6,567	50,564
Indiana.....	11	5	344	2,480	267	574	1,676	3,946	2,765	6,665	53	278	2,173
Illinois.....	50	28	6,321	49,891	4,574	10,309	34,308	77,979	50,601	125,597	2,019	5,098	44,251
Michigan.....	51	22	2,314	17,945	1,711	3,805	12,815	31,628	16,709	48,940	971	1,152	8,966
Wisconsin.....	7	3	158	1,071	118	237	666	1,510	671	2,204	40	136	1,012
West North Central.	20	5	538	2,993	415	877	2,064	5,846	2,413	8,272	110	608	5,473
Minnesota.....	9	2	274	1,524	206	454	1,025	3,052	1,208	4,385	27	( <sup>2</sup> )	( <sup>2</sup> )
Missouri.....	11	3	264	1,469	209	423	1,039	2,794	1,205	3,887	83	190	1,581
South.....	21	8	605	3,625	483	1,035	2,603	6,623	3,850	10,388	123	299	2,944
West.....	40	14	1,772	13,281	1,277	2,768	9,227	20,331	10,859	31,013			
INDUSTRY 3544.—SPECIAL DIES AND TOOLS													
Total.....	5,896	1,133	90,860	682,739	76,002	169,313	543,033	1,029,338	373,320	1,388,794	53,343	83,308	780,090
New England.....	682	99	7,789	51,844	6,504	14,443	40,979	74,755	27,783	102,509	4,180	7,628	63,285
Massachusetts....	279	49	3,482	23,307	2,874	6,345	18,143	33,196	12,964	45,916	1,490	3,205	27,231
Rhode Island.....	50	4	368	2,117	305	602	1,698	2,990	1,136	4,341	54	483	3,253
Connecticut.....	327	43	3,703	25,204	3,128	7,079	20,159	36,591	12,798	49,448	2,464	3,536	29,018
Middle Atlantic....	1,246	204	15,353	102,086	12,966	27,888	81,336	153,189	57,875	209,781	9,877	14,436	120,120
New York.....	553	78	5,865	39,574	4,920	10,612	31,253	59,450	20,483	79,607	3,676	5,933	50,435
New Jersey.....	373	63	4,763	32,246	4,005	8,839	25,768	49,444	17,610	66,500	2,916	4,230	35,165
Pennsylvania.....	320	63	4,725	30,266	4,041	8,437	24,315	44,295	19,782	63,674	3,285	4,273	34,520
East North Central.	2,834	656	54,863	441,069	45,932	104,350	352,152	663,072	235,645	887,197	31,214	50,018	494,103
Ohio.....	653	169	12,571	94,145	10,563	23,836	74,518	144,160	51,968	193,014	6,967	10,566	97,408
Indiana.....	298	69	5,298	38,374	4,337	9,602	29,564	54,795	17,808	71,996	2,639	5,042	43,715
Illinois.....	593	97	7,735	59,248	6,509	14,313	48,043	91,858	32,676	123,212	5,015	7,666	69,458
Michigan.....	1,092	292	25,685	222,166	21,608	50,338	178,887	338,603	123,241	455,706	14,995	24,391	260,607
Wisconsin.....	198	29	3,574	27,136	2,915	6,261	21,140	33,656	9,952	43,269	1,598	2,353	22,915

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3544.—SPECIAL DIES AND TOOLS--Continued													
West North Central.	240	43	3,139	20,510	2,582	5,519	16,271	30,306	11,062	41,418	1,777	2,216	20,545
Minnesota.....	66	12	759	4,841	631	1,352	4,059	7,256	2,932	10,170	498	680	6,344
Iowa.....	35	8	551	3,925	466	1,077	3,240	5,708	1,867	7,580	296	( <sup>2</sup> )	( <sup>2</sup> )
Montana.....	110	19	1,594	10,673	1,291	2,694	8,089	15,657	5,706	21,417	897	999	9,493
Kansas.....	20	3	159	717	133	264	593	1,115	351	1,472	43	205	1,464
South Atlantic....	169	24	1,704	10,381	1,424	3,020	8,093	15,980	6,622	22,586	1,084	1,521	12,604
Maryland.....	29	1	149	993	124	267	780	1,675	482	2,182	79	( <sup>2</sup> )	( <sup>2</sup> )
North Carolina...	28	2	242	1,356	201	403	1,044	1,514	787	2,308	176	149	1,194
Georgia.....	26	6	416	2,637	356	731	2,033	4,169	1,830	6,000	166	373	3,738
Florida.....	61	13	663	4,037	550	1,228	3,190	6,420	2,904	9,293	450	443	3,303
East South Central.	72	16	1,000	6,024	822	1,761	4,826	8,220	3,303	11,495	693	661	5,509
Kentucky.....	26	6	301	1,920	250	539	1,533	2,573	909	3,506	279	( <sup>2</sup> )	( <sup>2</sup> )
Tennessee.....	33	7	494	2,870	401	863	2,261	4,147	1,909	6,018	253	333	2,989
West South Central.	77	12	813	4,557	661	1,369	3,480	7,271	2,920	10,105	698	679	5,259
Arkansas.....	11	4	149	754	130	273	614	1,661	631	2,274	268	111	688
Texas.....	49	7	561	3,232	444	899	2,410	4,684	1,894	6,518	388	450	3,596
Mountain.....	40	9	446	2,875	367	737	2,277	4,790	1,924	6,690	337	479	4,407
Arizona.....	19	3	189	1,235	153	315	961	1,844	533	2,386	189	( <sup>2</sup> )	( <sup>2</sup> )
Pacific.....	536	70	5,753	43,393	4,744	10,226	33,619	71,755	26,186	97,013	3,483	5,670	54,258
California.....	511	70	5,667	42,832	4,669	10,083	33,135	70,762	25,834	95,662	3,413	5,566	53,364
INDUSTRY 3545.—MACHINE TOOL ACCESSORIES													
Total.....	1,038	347	46,994	312,799	34,560	72,037	208,086	559,258	234,501	787,338	22,784	41,521	348,580
New England.....	159	59	12,857	80,128	9,308	18,992	51,597	135,620	51,262	183,435	6,190	14,050	104,124
Vermont.....	4	4	670	4,188	556	1,132	2,782	9,020	5,157	13,714	635	( <sup>2</sup> )	( <sup>2</sup> )
Massachusetts....	61	25	6,302	37,584	4,767	9,657	26,525	63,133	22,977	86,432	2,595	5,841	45,153
Connecticut.....	70	22	4,614	30,666	3,085	6,408	17,865	49,839	19,231	65,835	2,560	4,364	31,403
Middle Atlantic....	164	43	5,691	33,646	4,256	8,662	22,919	57,429	32,805	89,483	2,546	4,798	35,359
New York.....	88	22	1,749	10,132	1,380	2,743	7,121	15,859	8,599	23,959	973	1,150	8,012
New Jersey.....	42	8	621	3,724	480	978	2,697	6,253	2,596	8,948	233	526	3,786
Pennsylvania.....	34	13	3,321	19,790	2,396	4,941	13,101	35,317	21,610	56,576	1,340	3,122	23,561
East North Central.	526	211	24,797	178,512	18,241	38,726	119,574	325,533	133,371	457,401	12,144	20,124	185,013
Ohio.....	93	38	6,447	44,420	4,734	9,691	28,168	82,902	26,937	111,709	2,732	5,391	50,644
Indiana.....	30	6	598	3,593	433	882	2,481	6,607	2,650	9,378	292	460	3,347
Illinois.....	89	38	5,028	33,332	3,612	7,461	21,538	61,306	29,049	88,323	2,265	4,332	35,910
Michigan.....	287	121	12,301	94,418	9,168	20,063	65,598	169,668	71,334	239,490	6,674	9,472	91,163
Wisconsin.....	27	8	423	2,749	294	629	1,789	5,050	3,401	8,501	181	469	3,949
West North Central.	22	5	1,053	6,144	740	1,514	3,652	11,422	4,907	16,264	837	840	6,969
South Atlantic.....	24	4	382	1,714	306	649	1,227	3,622	2,279	5,467	316	573	5,453
East South Central.	14	6	565	2,557	474	1,039	2,034	4,469	2,619	7,300	202		
West South Central.	15	3	274	1,138	204	383	803	4,366	1,171	5,307	97		
Mountain.....	5	-	26	101	20	40	75	253	69	322			
Pacific.....	109	16	1,349	8,859	1,011	2,032	6,205	16,544	6,018	22,359	452	1,136	11,662
California.....	105	16	1,334	8,805	999	2,008	6,161	16,447	5,934	22,174	443	1,111	11,535
INDUSTRY 3548.—METALWORKING MACHINERY, N.E.C.													
Total.....	435	168	38,012	246,242	28,257	57,094	161,837	468,435	328,357	796,327	20,957	33,328	332,397
New England.....	45	17	2,801	18,336	1,990	3,956	10,881	32,851	20,722	55,136	2,202	2,835	28,679
Connecticut.....	20	10	1,340	9,299	955	1,877	5,654	17,281	9,506	25,657	1,400	1,437	12,937
Middle Atlantic....	91	40	11,532	77,554	8,674	17,095	53,000	141,317	103,443	245,623	4,922	12,291	117,835
New York.....	41	10	2,452	14,852	1,782	3,590	10,213	37,657	15,279	52,643	538	2,079	24,293
New Jersey.....	18	8	1,749	12,612	1,187	2,400	6,784	17,427	11,757	29,485	836	1,851	14,439
Pennsylvania.....	32	22	7,331	50,090	5,705	11,105	36,003	86,233	76,407	163,495	3,548	8,361	79,103
East North Central.	178	70	15,129	101,477	11,275	23,674	66,686	190,053	140,561	330,252	9,825	11,500	120,680
Ohio.....	58	29	7,789	56,938	5,790	12,180	38,447	96,208	78,990	173,850	6,931	5,161	56,010
Indiana.....	12	2	149	1,105	114	236	766	2,490	946	3,498	60	104	1,124
Illinois.....	50	17	4,668	26,716	3,627	7,657	17,652	57,799	40,817	99,104	2,005	3,621	37,702
Michigan.....	42	12	1,395	8,866	989	2,089	5,571	19,032	10,650	29,502	506	1,997	19,017
Wisconsin.....	16	10	1,128	7,852	755	1,521	4,250	14,524	9,158	24,298	323	617	6,827

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
	INDUSTRY 3548.—METALWORKING MACHINERY, N.E.C.—Continued												
West North Central.	32	16	1,962	11,984	1,343	2,737	6,459	22,774	17,277	39,735	1,192	1,637	15,258
Iowa.....	9	5	1,067	6,643	663	1,291	3,204	11,947	8,390	19,927	834	772	6,702
Missouri.....	9	4	504	2,718	436	945	1,886	6,600	4,917	11,821	181	328	3,867
South.....	34	13	5,476	30,151	4,146	8,088	20,142	67,451	37,890	103,161	2,327	3,942	37,100
Texas.....	10	4	590	3,608	424	894	2,231	8,080	2,454	10,304	225	(2)	(2)
West.....	55	12	1,112	6,740	829	1,544	4,669	13,989	8,464	22,420	489	1,123	12,845

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup> General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3541, Metal-cutting Machine tools: New England--Maine, 1 (1-19); New Hampshire, 1 (250-499); Massachusetts, 34 (3,738); Rhode Island, 10 (2,500-4,999); West North Central--Iowa, 1 (1-19); Missouri, 13 (223); South Dakota, 1 (100-249); Kansas, 2 (20-99); South Atlantic--Maryland, 1 (1-19); Virginia, 1 (1-19); North Carolina, 1 (1-19); South Carolina, 1 (1-19); Georgia, 1 (1-19); Florida, 3 (1-19); East South Central--Kentucky, 3 (166); Tennessee, 3 (20-99); Alabama, 1 (1-19); West South Central--Oklahoma, 1 (1-19); Mountain--Idaho, 1 (1-19); New Mexico, 2 (20-99); Arizona, 3 (20-99); Utah, 1 (1-19); Pacific--Washington, 3 (20-99); Oregon, 3 (20-99); Hawaii, 1 (1-19).

SIC 3542, Metal-forming Machine Tools: New England--Maine, 1 (20-99); New Hampshire, 1 (20-99); Rhode Island, 2 (1-19); South Atlantic--Maryland, 3 (135); North Carolina, 3 (184); South Carolina, 2 (20-99); Georgia, 2 (20-99); Florida, 3 (20-99); East South Central--Kentucky, 1 (20-99); Alabama, 1 (1-19); West South Central--Arkansas, 1 (1-19); Oklahoma, 1 (20-99); Texas, 4 (20-99); Mountain--Arizona, 1 (1-19); Pacific--Washington, 2 (250-499); Oregon, 1 (20-99); California, 36 (1408).

SIC 3544, Special Dies and Tools: New England--Maine, 7 (20-99); New Hampshire, 15 (161); Vermont, 4 (1-19); West North Central--North Dakota, 1 (1-19); Nebraska, 8 (20-99); South Atlantic--Delaware, 3 (20-99); Virginia, 8 (20-99); West Virginia, 5 (20-99); South Carolina, 9 (20-99); East South Central--Alabama, 11 (198); Mississippi, 2 (1-19); West South Central--Louisiana, 9 (20-99); Oklahoma, 8 (20-99); Mountain--Idaho, 1 (1-19); Colorado, 13 (100-249); New Mexico, 1 (20-99); Utah, 6 (100-249); Pacific--Washington, 11 (20-99); Oregon, 14 (20-99).

SIC 3545, Machine Tool Accessories: New England--Maine, 1 (1-19); New Hampshire, 4 (100-249); Rhode Island, 19 (1,099); West North Central--Minnesota, 8 (425); Iowa, 5 (20-99); Missouri, 6 (513); Nebraska, 1 (1-19); Kansas, 2 (20-99); South Atlantic--Maryland, 3 (20-99); Virginia, 2 (1-19); West Virginia, 2 (1-19); North Carolina, 6 (121); South Carolina, 1 (20-99); Florida, 10 (20-99); East South Central--Kentucky, 4 (245); Tennessee, 5 (250-499); Alabama, 4 (20-99); Mississippi, 1 (1-19); West South Central--Arkansas, 4 (176); Texas, 11 (20-99); Mountain--Colorado, 1 (1-19); Arizona, 3 (1-19); Utah, 1 (1-19); Pacific--Washington, 1 (1-19); Oregon, 3 (1-19).

SIC 3548, Metalworking Machinery, N.E.C.: New England--New Hampshire, 4 (1-19); Vermont, 2 (20-99); Massachusetts, 15 (1343); Rhode Island, 4 (20-99); West North Central--Minnesota, 6 (219); North Dakota, 1 (20-99); South Dakota, 1 (1-19); Nebraska, 2 (20-99); Kansas, 4 (20-99); South Atlantic--Delaware, 4 (203); Maryland, 3 (2500-4999); Virginia, 1 (1-19); West Virginia, 2 (500-999); North Carolina, 2 (1-19); South Carolina, 1 (1,000-2,499); Georgia, 2 (1-19); Florida, 3 (20-99); East South Central--Alabama, 3 (20-99); West South Central--Louisiana, 1 (1-19); Oklahoma, 2 (1-19); Mountain--New Mexico, 2 (20-99); Arizona, 1 (1-19); Pacific--Washington, 2 (1-19); Oregon, 1 (1-19); California, 48 (1,061); Hawaii, 1 (1-19).

<sup>2</sup> This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

TABLE 3. Detailed Statistics: 1963

Item	Metal-cutting machine tools (SIC 3541)	Metal-forming machine tools (SIC 3542)	Special dies and tools (SIC 3544)	Machine tool accessories (SIC 3545)	Metal-working machinery, n.e.c. (SIC 3548)
Primary product specialization ratio <sup>1</sup> .....	.81	.86	.93	.83	.85
Coverage ratio <sup>2</sup> .....	.87	.79	.72	.84	.88
Establishments, total.....number..	801	366	5,896	1,038	435
With 1 to 19 employees.....do....	532	220	4,763	691	267
With 20 to 99 employees.....do....	174	104	1,030	250	99
With 100 employees or more.....do....	95	42	103	97	69
Proprietors and working partners.....do....	357	125	3,407	417	150
All employees (average for the year).....do....	61,058	22,078	90,860	46,994	38,012
Payroll (all employees), total for year.....\$1,000..	438,222	161,669	682,739	312,799	246,242
Production workers:					
Average for the year.....number..	41,008	15,782	76,002	34,560	28,257
March.....do....	40,076	15,817	76,642	34,521	28,004
May.....do....	40,604	15,726	76,899	34,724	27,894
August.....do....	41,264	15,641	74,361	34,629	28,093
November.....do....	41,966	15,959	76,421	34,412	29,063
Man-hours.....1,000..	86,486	34,633	169,313	72,037	57,094
January-March.....do....	21,666	8,637	42,510	18,211	14,249
April-June.....do....	21,407	8,987	43,757	18,440	14,358
July-September.....do....	20,895	8,167	40,537	16,997	13,739
October-December.....do....	22,518	8,842	42,509	18,389	14,748
Wages.....\$1,000..	272,243	107,381	543,033	208,086	161,837
Cost of materials, etc., total.....do....	381,566	165,376	373,320	234,501	328,357
Materials, parts, containers, and supplies consumed.....do....	334,002	144,149	281,516	188,599	279,508
Cost of resales.....do....	20,832	8,625	14,049	21,677	33,383
Fuels consumed.....do....	3,800	1,179	5,215	2,285	3,460
Electric energy:					
Purchased:	3,541	3,542	3,544	3,545	3,548
Quantity.....million kw.-hrs..	426	153	543	406	285
Cost.....\$1,000..	6,687	2,142	9,619	6,023	4,069
Generated less sold.....million kw.-hrs..	8	(D)	1	1	(D)
Contract work.....\$1,000..	16,245	9,281	62,920	15,913	7,937
Value of shipments (including resales), total.....do....	1,060,818	441,419	1,388,794	787,338	796,327
Value of resales.....do....	29,113	10,596	19,577	26,878	40,119
Value added by manufacture, adjusted.....do....	699,341	281,287	1,029,338	559,258	468,435
Manufacturers' inventories:					
Beginning of year, total.....do....	288,027	118,829	107,375	163,906	215,143
Finished products.....do....	75,254	32,229	13,530	64,323	57,798
Work-in-process.....do....	163,194	54,773	67,489	66,923	111,061
Materials, supplies, fuel, etc.....do....	49,579	31,827	26,356	32,660	46,284
End of year, total.....do....	316,288	124,188	124,789	171,114	216,412
Finished products.....do....	82,334	33,900	14,702	65,952	58,918
Work-in-process.....do....	176,203	58,346	80,181	71,715	110,323
Materials, supplies, fuel, etc.....do....	57,751	31,942	29,906	33,448	47,171
Expenditures for plant and equipment, total.....do....	32,378	13,592	64,814	26,125	21,954
New, total.....do....	28,837	10,792	53,343	22,784	20,957
New structures and additions to plant.....do....	5,401	2,099	10,557	4,215	4,139
New machinery and equipment.....do....	23,436	8,693	42,786	18,569	16,818
Used plant and equipment.....do....	3,544	2,801	11,471	3,354	997
Selected operating ratios:					
Payroll/Total employment.....	7,177	7,323	7,513	6,656	6,478
Production workers/Total employment.....	.67	.72	.84	.74	.74
Man-hours/Production workers.....	2,109	2,196	2,228	2,084	2,017
Production worker wages/Man-hours.....	3.15	3.10	3.21	2.89	2.83
Cost of materials and payrolls/Total value of shipments.....	.77	.74	.76	.70	.72
Cost of materials/Total value of shipments.....	.36	.37	.27	.30	.41
Adjusted value added/Total employment.....	11,454	12,740	11,329	11,901	12,323
Salaries and wages/Adjusted value added.....	.63	.57	.66	.56	.53

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3541.—METAL-CUTTING MACHINE TOOLS											
Establishments.....number..	801	276	127	129	118	56	44	22	15	11	3
All employees:											
Total.....do.....	61,058	529	840	1,803	3,607	3,727	6,912	7,713	10,664	15,534	9,729
Payroll.....\$1,000..	438,222	3,047	4,866	11,398	24,119	26,871	49,483	59,073	77,549	114,965	66,851
Value added, adjusted.....do....	699,341	5,797	8,069	17,964	41,249	43,193	86,921	94,119	137,004	161,967	103,058
Value of shipments.....do.....	1,060,818	9,508	12,382	29,092	66,044	70,342	140,576	149,473	200,593	241,544	141,264
Capital expenditures, new...do....	28,837	298	283	705	1,304	1,949	3,170	3,967	5,573	8,453	3,091
INDUSTRY 3542.—METAL-FORMING MACHINE TOOLS											
Establishments.....number..	366	99	64	57	64	40	23	9	7	3	—
All employees:											
Total.....do.....	22,078	185	455	809	2,036	2,728	3,708	3,536	4,919	3,702	—
Payroll.....\$1,000..	161,669	1,188	2,671	4,975	14,577	18,695	25,861	27,227	37,457	29,018	—
Value added, adjusted.....do....	281,287	2,824	4,563	8,663	24,190	33,571	46,532	44,731	72,948	43,265	—
Value of shipments.....do.....	441,419	3,944	7,563	13,269	37,676	52,289	85,484	65,216	104,924	71,054	—
Capital expenditures, new...do....	10,792	169	171	327	758	1,361	3,328	1,471	2,055	1,152	—
INDUSTRY 3544.—SPECIAL TOOLS AND DIES											
Establishments.....number..	5,896	2,300	1,238	1,225	830	200	79	17	5	2	—
All employees:											
Total.....do.....	90,860	4,241	8,475	16,756	24,802	13,501	11,327	5,819	5,939	(D)	—
Payroll.....\$1,000..	682,739	25,209	54,215	115,457	187,314	105,640	94,493	45,884	54,527	(D)	—
Value added, adjusted.....do....	1,029,338	54,804	88,245	177,034	278,004	156,459	139,011	61,984	73,797	(D)	—
Value of shipments.....do.....	1,388,794	75,717	117,304	234,716	378,749	210,012	192,350	86,274	93,672	(D)	—
Capital expenditures, new...do....	53,343	4,776	5,244	9,562	14,429	7,738	6,087	2,647	2,860	(D)	—
INDUSTRY 3545.—MACHINE TOOL ACCESSORIES											
Establishments.....number..	1,038	321	193	177	165	85	59	25	7	6	—
All employees:											
Total.....do.....	46,994	555	1,326	2,517	5,128	5,887	9,379	8,559	5,435	8,208	—
Payroll.....\$1,000..	312,799	3,018	7,626	15,893	36,785	38,158	60,751	57,608	36,195	56,765	—
Value added, adjusted.....do....	559,258	6,949	13,897	26,641	63,679	67,321	105,315	108,321	58,084	109,051	—
Value of shipments.....do.....	787,338	10,458	20,009	38,019	90,759	98,985	149,318	146,648	78,628	154,514	—
Capital expenditures, new...do....	22,784	355	457	1,040	2,923	3,033	4,227	4,188	2,167	4,394	—
INDUSTRY 3548.—METALWORKING MACHINERY, N.E.C.											
Establishments.....number..	435	137	70	60	60	39	31	14	15	9	—
All employees:											
Total.....do.....	38,012	290	476	811	1,822	2,634	4,804	5,152	9,702	12,321	—
Payroll.....\$1,000..	246,242	1,350	2,498	4,716	12,160	17,397	30,524	36,591	63,720	77,286	—
Value added, adjusted.....do....	468,435	3,154	4,259	8,956	21,458	32,366	59,873	71,379	111,190	155,800	—
Value of shipments.....do.....	796,327	5,220	7,167	14,807	36,736	52,405	108,328	111,721	206,310	253,633	—
Capital expenditures, new...do....	20,957	274	216	394	1,002	1,232	2,214	3,387	6,918	5,320	—

Standard Notes: - Represents zero. (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.  
 (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

**TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscel- laneous receipts	Primary product special- ization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		( $\$1,000$ )	( $\$1,000$ )	( $\$1,000$ )	( $\$1,000$ )	Col. B Col. B+C (percent)	( $\$1,000$ )	( $\$1,000$ )	( $\$1,000$ )	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3541	Metal-cutting machine tools.....1963..	1,060,818	805,323	187,903	67,592	81	925,251	805,323	119,928	88
	1958..	679,836	529,343	92,614	57,879	85	592,549	529,343	63,206	89
3542	Metal-forming machine tools.....1963..	441,419	350,906	57,649	32,864	86	444,845	350,906	93,939	79
	1958..	317,657	230,191	49,498	37,968	82	289,478	230,191	59,287	80
3544	Special dies and tools.....1963..	1,388,794	1,164,341	85,491	138,962	93	1,608,135	1,164,341	443,794	72
	1958..	1,060,566	905,775	64,333	90,458	93	1,320,389	905,775	414,614	69
3545	Machine tool accessories.....1963..	787,338	616,022	121,781	49,535	83	731,716	616,022	115,694	84
	1958..	511,456	401,680	73,371	36,405	85	470,197	401,680	68,517	85
3548	Metalworking machinery, n.e.c....1963..	796,327	615,932	108,647	71,748	85	701,906	615,932	85,974	88
	1958..	602,015	494,345	48,441	59,229	91	580,161	494,345	85,816	85

NOTE: See Introduction for an explanation of terms used.

n.e.c. Not elsewhere classified.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Metal-cutting machine tools (SIC 3541)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Metal-cutting machine tools (SIC 3541)	Other industries
	<b>METAL-CUTTING MACHINE TOOLS INDUSTRY</b>					<b>METAL-CUTTING MACHINE TOOLS INDUSTRY—Continued</b>			
	Total shipments and receipts the industry.....	(X)	1,060,818	(X)		Miscellaneous receipts, total.....	(X)	67,592	(X)
	Primary products, total.....	925,251	805,323	119,928		Contract and commission work.....	(X)	20,625	(X)
35411	Boring machines.....	66,342	61,880	4,462		Sales of products bought and re-sold.....	(X)	29,113	(X)
35412	Drilling machines.....	55,278	47,496	7,782		Miscellaneous repair work.....	(X)	6,456	(X)
35413	Gear cutting and finishing machines.....	40,909	35,713	5,196		Other.....	(X)	11,398	(X)
35414	Grinding and polishing machines (excluding gear tooth grinding, honing, lapping, polishing, and buffing machines).....	144,208	121,955	22,253	35412	Listing of other industries with over \$2 million shipments of the primary product classes:			
35415	Lathes.....	163,449	157,043	6,406	35413	3545 Machine tool accessories.....	(X)	(X)	(2-5)
35416	Milling machines.....	112,724	103,888	8,836		3545 Machine tool accessories.....	(X)	(X)	(2-5)
35418	Other machine tools (including those designated primarily for home workshops, laboratories, etc.).....	152,442	117,625	34,817	35414	3291 Abrasive products.....	(X)	(X)	(over 2)
35419	Parts for metal-cutting type machine tools sold separately and rebuilt machine tools.....	165,517	136,071	29,446		3545 Machine tool accessories.....	(X)	(X)	4,402
35410	Metal-cutting machine tools, n.s.k.....	24,382	23,652	730	3548	3548 Metalworking machinery, n.e.c.....	(X)	(X)	2,255
	Secondary products, total.....	(X)	187,903	(X)		3553 Woodworking machinery.....	(X)	(X)	2,101
33214	All other gray iron castings.....	(X)	5,546	(X)	35416	3559 Special industry machines, n.e.c.....	(X)	(X)	(2-5)
35421	Punching, shearing, bending and forming machines.....	(X)	4,268	(X)		3599 Miscellaneous machinery.....	(X)	(X)	3,058
35422	Presses, including forging presses	(X)	7,218	(X)	35418	3545 Machine tool accessories.....	(X)	(X)	(2-5)
35424	Parts for metal-forming machine tools and rebuilt metal-forming machinery.....	(X)	5,834	(X)		3542 Metal-forming machine tools..	(X)	(X)	2,329
35441	Special dies and tools, die sets, jigs and fixtures.....	(X)	7,565	(X)		3544 Special dies and tools.....	(X)	(X)	5,790
35451	Small cutting tools for machine tools and metalworking machinery	(X)	29,775	(X)	35419	3545 Machine tool accessories.....	(X)	(X)	9,690
35452	Precision measuring tools.....	(X)	11,165	(X)		3553 Woodworking machinery.....	(X)	(X)	(over 2)
35453	Other attachments and accessories for machine tools and metalworking machinery.....	(X)	27,860	(X)		3531 Construction machinery.....	(X)	(X)	(5-10)
35531	Woodworking machinery (except machinery designed primarily for home workshops, garages, and service shops), including parts, attachments and accessories.....	(X)	9,157	(X)		3542 Metal-forming machine tools..	(X)	(X)	2,869
35593	Plastics-working machinery and equipment (excluding patterns and molds).....	(X)	16,489	(X)		3544 Special dies and tools.....	(X)	(X)	2,196
35690	General industrial machinery, n.e.c.....	(X)	2,175	(X)		3545 Machine tool accessories.....	(X)	(X)	7,284
35990	Carburetors, pistons, and other machine shop products.....	(X)	3,820	(X)		3542 Metal-forming machine tools, n.s.k			
	Other secondary products.....	(X)	57,031	(X)		Secondary products, total.....	(X)	57,649	(X)
28993	Essential oils, fireworks and pyrotechnics, chemicals and chemical preparations, n.e.c....	(X)	(over 2)	(X)	35421	Punching, shearing, bending and forming machines.....	92,542	69,263	23,279
32912	Nonmetallic bonded abrasive products, including diamond abrasives	(X)	(5-10)	(X)	35422	Presses, including forging presses	141,734	115,887	25,847
34231	Mechanics' hand service tools...	(X)	(5-10)	(X)	35423	Other metal-forming machine tools, including forging machines	71,683	53,810	17,873
35521	Textile machinery.....	(X)	(over 2)	(X)	35424	Parts for metal-forming machine tools and rebuilt metal-forming machinery.....	118,220	92,091	26,129
35592	Foundry machinery and equipment, (excluding patterns and molds).	(X)	(over 2)	(X)		Metal-forming machine tools, n.s.k	20,666	19,855	811
35611	Industrial pumps, except hydraulic fluid power.....	(X)	(over 2)	(X)	35420	Secondary products, total.....	(X)	57,649	(X)
35662	Speed changers, industrial high-speed drives, and gears.....	(X)	(2-5)	(X)	35418	Other machine tools (including those designed primarily for home workshops, laboratories, etc.)...	(X)	2,329	(X)
36795	Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks).....	(X)	(2-5)	(X)	35419	Parts for metal-cutting type machine tools, sold separately, and rebuilt machine tools.....	(X)	2,869	(X)
					35441	Special dies and tools, die sets, jigs and fixtures.....	(X)	19,628	(X)
					35453	Other attachments and accessories for machine tools and metalworking machinery	(X)	2,663	(X)
					35485	Metalworking machinery, except machine tools, n.e.c.....	(X)	2,226	(X)

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Metal-forming machine tools (SIC 3542)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Special dies and tools (SIC 3544)	Other industries
METAL-FORMING MACHINE TOOLS INDUSTRY—Continued					SPECIAL DIES AND TOOLS INDUSTRY—Continued				
Secondary products—Continued					Secondary products—Continued				
	Other secondary products.....	(X)	27,934	(X)	19990	Other secondary products.....	(X)	45,449	(X)
34232	Edge tools.....	(X)	(2-5)	(X)	33919	Ordnance and accessories, n.e.c.	(X)	(2-5)	(X)
35481	Rolling-mill machinery and equipment.....	(X)	(2-5)	(X)		Open die or smith forgings, (open frame hammer or press) (produced from purchased materials).....	(X)	(over 2)	(X)
35531	Woodworking machinery (except machinery designed primarily for home workshops, garages, and service shops) including parts, attachments and accessories.....	(X)	(2-5)	(X)	35594	Rubber-working machinery and equipment, excluding tire molds.	(X)	(2-5)	(X)
	Industrial process instruments..	(X)	(2-5)	(X)		Miscellaneous receipts, total.....	(X)	138,962	(X)
38213	Miscellaneous receipts, total.....	(X)	(over 2)	(X)		Receipts for precision machining on materials owned by others.....	(X)	58,486	(X)
	Contract and commission work.....	(X)	8,224	(X)		Other receipts for work done for others on their own materials.....	(X)	40,329	(X)
	Sales of products bought and resold.....	(X)	10,596	(X)		Sales of products bought and resold	(X)	19,577	(X)
	Miscellaneous repair work.....	(X)	3,537	(X)		Sales of iron and steel production scrap.....	(X)	1,051	(X)
	Other.....	(X)	10,507	(X)		Receipts for research and development work.....	(X)	2,720	(X)
	Listing of other industries with over \$2 million shipments of the primary product classes:					Receipts for repair work.....	(X)	9,373	(X)
35421	3541 Metal-cutting machine tools.	(X)	(X)	4,268	35441	Other miscellaneous receipts.....	(X)	7,426	(X)
	3548 Metalworking machinery, n.e.c.	(X)	(X)	(5-10)		Listing of other industries with over \$2 million shipments of the primary product classes:			
35422	3541 Metal-cutting machine tools.	(X)	(X)	7,218		3321 Gray iron foundries.....	(X)	(X)	4,143
	3548 Metalworking machinery, n.e.c.....	(X)	(X)	(2-5)		3323 Steel foundries.....	(X)	(X)	2,662
	3551 Food products machinery.....	(X)	(X)	(2-5)		3361 Aluminum castings.....	(X)	(X)	18,369
	3559 Special industry machines, n.e.c.....	(X)	(X)	(2-5)		3369 Nonferrous castings, n.e.c.....	(X)	(X)	10,240
35423	3452 Bolts, nuts, rivets and washers.....	(X)	(X)	(2-5)		3391 Iron and steel forgings.....	(X)	(X)	8,982
	3559 Special industry machines, n.e.c.....	(X)	(X)	8,451		3392 Nonferrous forgings.....	(X)	(X)	5,860
35424	3452 Bolts, nuts, rivets and washers.....	(X)	(X)	2,073		3429 Hardware, n.e.c.....	(X)	(X)	(20-50)
	3541 Metal-cutting machine tools.	(X)	(X)	5,834		3461 Metal stampings.....	(X)	(X)	65,923
	3548 Metalworking machinery, n.e.c.....	(X)	(X)	3,385		3522 Farm machinery and equipment.	(X)	(X)	(2-5)
	3585 Refrigeration machinery.....	(X)	(X)	(2-5)	35442	3541 Metal-cutting machine tools..	(X)	(X)	7,565
		All industries	Special dies and tools (SIC 3544)	Other industries		3542 Metal-forming machine tools..	(X)	(X)	19,628
						3545 Machine tool accessories.....	(X)	(X)	22,410
						3599 Miscellaneous machinery.....	(X)	(X)	9,293
						3517 Motor vehicles and parts.....	(X)	(X)	(over 2)
						3722 Aircraft engines and parts...	(X)	(X)	3,565
						3729 Aircraft equipment, n.e.c....	(X)	(X)	2,688
						3821 Mechanical measuring devices.	(X)	(X)	(2-5)
						3079 Plastics products, n.e.c.....	(X)	(X)	20,316
						3559 Special industry machines, n.e.c.....	(X)	(X)	2,859
							All industries	Machine tool accessories (SIC 3545)	Other industries
SPECIAL DIES AND TOOLS INDUSTRY					MACHINE TOOL ACCESSORIES INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	1,388,794	(X)		Total shipments and receipts of the industry.....	(X)	787,338	(X)
	Primary products, total.....	1,608,135	1,164,341	443,794	35451	Primary products, total.....	731,716	616,022	115,694
35441	Special dies, and tools, die sets, jigs and fixtures.....	1,251,706	845,409	406,297	35452	Small cutting tools for machine tools and metalworking machinery..	464,432	413,718	50,714
35442	Industrial molds.....	220,561	184,402	36,159	35453	Precision measuring tools.....	87,998	66,357	21,641
35440	Special dies and tools, n.s.k.....	135,868	134,530	1,338		Other attachments and accessories for machine tools and metalworking machinery.....	152,570	109,626	42,944
	Secondary products, total.....	(X)	85,491	(X)	35450	Machine tool accessories, n.s.k....	26,716	26,321	395
34612	Job stampings, except automotive..	(X)	11,074	(X)		Secondary products, total.....	(X)	121,781	(X)
34613	Job stampings, automotive.....	(X)	3,261	(X)	33991	Metal powders and paste.....	(X)	4,539	(X)
35418	Other machine tools (including those designed primarily for home workshops, laboratories, etc.)...	(X)	5,790	(X)	35324	Parts and attachments for mining machinery and equipment.....	(X)	7,970	(X)
35419	Parts for metal-cutting type machine tools, sold separately, and rebuilt machine tools.....	(X)	2,196	(X)	35414	Grinding and polishing machines (excluding gear tooth grinding, honing, lapping, polishing and buffing machines).....	(X)	4,402	(X)
35453	Other attachments and accessories for machine tools and metalworking machinery.....	(X)	3,069	(X)	35418	Other machine tools (including those designed primarily for home workshops, laboratories, etc.)....	(X)	9,690	(X)
35990	Carburetors, pistons, and other machine shop products.....	(X)	11,936	(X)	35419	Parts for metal-cutting type machine tools sold separately and rebuilt machine tools.....	(X)	7,284	(X)
37291	Other aircraft parts and auxiliary equipment.....	(X)	2,716	(X)					

See footnotes at end of table.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Machine tool accessories (SIC 3545)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Metalworking machinery, n.e.c. (SIC 3548)	Other industries
MACHINE TOOL ACCESSORIES INDUSTRY—Continued					METALWORKING MACHINERY, N.E.C. INDUSTRY—Continued				
Secondary products—Continued					Secondary products, total.....				
35441	Special dies and tools, die sets, jigs, and fixtures.....	(X)	22,410	(X)	35361	Hoists.....	(X)	108,647	(X)
35481	Rolling-mill machinery and equipment.....	(X)	2,073	(X)	35414	Grinding and polishing machines (excluding gear tooth grinding, honing, lapping, polishing and buffing machines).....	(X)	7,084	(X)
	Other secondary products.....	(X)	63,413	(X)	35424	Parts for metal-forming machine tools and rebuilt metal-forming machinery.....	(X)	2,255	(X)
19291	Ammunition over 30mm (or 1.18 inches and over) n.e.c.....	(X)	(5-10)	(X)	35595	Other special industry machinery and equipment.....	(X)	3,385	(X)
32911	Nonmetallic artificial sized grains, powders and flour abrasives.....	(X)	(5-10)	(X)	35990	Carburetors, pistons and other machine shop products.....	(X)	4,040	(X)
33560	Rolled, drawn, and extruded non-ferrous metal mill products (except copper and aluminum)...	(X)	(over 2)	(X)	36211	Fractional horsepower motors.....	(X)	2,407	(X)
34231	Mechanics' hand service tools...	(X)	(2-5)	(X)			(X)	6,808	(X)
34250	Hand saws, saw blades and saw accessories.....	(X)	(2-5)	(X)	Other secondary products.....				
35412	Drilling machines.....	(X)	(2-5)	(X)			(X)	82,668	(X)
35413	Gear cutting and finishing machines.....	(X)	(2-5)	(X)	33214	All other gray iron castings.....	(X)	(5-10)	(X)
35416	Milling machines.....	(X)	(2-5)	(X)	33230	Steel castings.....	(X)	(2-5)	(X)
35595	Other special industry machinery, and equipment.....	(X)	(2-5)	(X)	34231	Mechanics' hand service tools...	(X)	(2-5)	(X)
	Miscellaneous receipts, total.....	(X)	49,535	(X)	35421	Punching, shearing, bending and forming machines.....	(X)	(5-10)	(X)
	Contract and commission work.....	(X)	6,572	(X)	35422	Presses, including forging presses.....	(X)	(2-5)	(X)
	Sales of products bought and resold	(X)	26,878	(X)	35662	Speed changers, industrial high speed drives, and gears.....	(X)	(5-10)	(X)
	Receipts for precision machining on materials owned by others.....	(X)	8,949	(X)	35860	Measuring and dispensing pumps...	(X)	(2-5)	(X)
	Other.....	(X)	7,136	(X)	35893	Commercial and industrial vacuum cleaners, including attachments and parts.....	(X)	(2-5)	(X)
Listing of other industries with over \$2 million shipments of the primary product classes:					37291	Other aircraft parts and auxiliary equipment.....	(X)	(5-10)	(X)
35451	3291 Abrasive products.....	(X)	(X)	2,360	38213	Industrial process instruments...	(X)	(2-5)	(X)
	3499 Fabricated metal products, n.e.c.....	(X)	(X)	(2-5)	Miscellaneous receipts, total.....				
	3541 Metal-cutting machine tools.	(X)	(X)	29,775			(X)	71,748	(X)
	3822 Automatic temperature controls.....	(X)	(X)	(over 2)		Receipts for precision machining on materials owned by others.....	(X)	10,357	(X)
35452	3541 Metal-cutting machine tools.	(X)	(X)	11,165		Other receipts for work done for others on their materials.....	(X)	3,526	(X)
	3999 Miscellaneous products, n.e.c.....	(X)	(X)	(over 2)		Sales of products bought and resold	(X)	40,019	(X)
35453	3541 Metal-cutting machine tools.	(X)	(X)	27,860		Sales of iron and steel production scrap.....	(X)	787	(X)
	3542 Metal-forming machine tools.	(X)	(X)	2,663		Sales of copper and copper-base alloy production scrap.....	(X)	500	(X)
	3544 Special dies and tools.....	(X)	(X)	3,069		Receipts for repair work.....	(X)	13,313	(X)
						Other miscellaneous receipts.....	(X)	3,246	(X)
		All industries	Metalworking machinery, n.e.c. (SIC 3548)	Other industries	35481	Listing of other industries with over \$2 million shipments of primary product classes:			
						3323 Steel foundries.....	(X)	(X)	(10-20)
						3542 Metal-forming machine tools..	(X)	(X)	(2-5)
						3545 Machine tool accessories.....	(X)	(X)	2,073
						3585 Refrigeration machinery.....	(X)	(X)	(over 2)
	METALWORKING MACHINERY, N.E.C. INDUSTRY				35482	3542 Bolts, nuts, rivets and washers.....	(X)	(X)	5,166
	Total shipments and receipts of the industry.....	(X)	796,327	(X)		3589 Service industry machines, n.e.c.....	(X)	(X)	(2-5)
	Primary products, total.....	701,906	615,932	85,974	3634	Electric housewares and fans.	(X)	(X)	2,534
35481	Rolling mill machinery and equipment.....	222,211	192,579	29,632	35483	3494 Valves and pipe fittings.....	(X)	(X)	(over 2)
35482	Power-driven hand tools.....	319,881	298,687	21,194		3569 General industry machines....	(X)	(X)	(over 2)
35483	Acetylene welding and cutting apparatus.....	54,648	43,315	11,333	35484	3522 Farm machinery and equipment.	(X)	(X)	(5-10)
35484	Automotive maintenance equipment..	47,691	35,096	12,595	35485	3542 Metal-forming machine tools..	(X)	(X)	2,226
35485	Other metalworking machinery.....	36,564	28,184	8,380					
35480	Metalworking machinery, n.e.c., n.s.k.....	20,911	18,071	2,840					

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3541- --	METAL-CUTTING MACHINE TOOLS, TOTAL.....	(X)	925,251	(X)	592,549
35411 --	Boring machines:				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	66,342	(X)	52,791
	As reported on Census Form M35W <sup>1</sup> .....	1,750	67,930	1,403	51,563
	Horizontal boring, drilling, and milling machines:				
35411 11	Table type.....	144	12,625	215	11,114
35411 15	Floor type (including rail mounted)*.....			47	5,215
35411 13, 19	All other horizontal boring, drilling, and milling machines, including rotary table type (built-in table).....	137	5,800	17	1,527
	Vertical boring and turning mills (including vertical turret lathes):				
35411 21	Standard type.....				
35411 23	Widened, raised, extended, and fixed rail types.....				
35411 25	Multiple work holders (multislides).....	168	15,709	170	14,471
35411 29	All other vertical boring and turning mills.....				
	Precision boring machines:				
35411 51, 53	Horizontal (bridge and way types).....	319	11,689		
35411 55	Vertical type.....	92	3,725	428	9,971
35411 59	All other precision boring machines.....				
35411 71- 73	Jig boring machines.....	499	17,000	260	4,931
35411 91- 99	All other boring machines*.....	391	1,382	266	4,334
35412 --	Drilling machines:				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	55,278	(X)	30,949
	As reported on Census Form M35W <sup>1</sup> .....	24,358	52,018	11,520	30,023
	Sensitive drilling machines:				
35412 11	Bench type:				
	Average value under \$1,000.....	5,787	1,344	4,434	951
	Average value \$1,000 or over.....	450	632	38	88
35412 15	Floor and pedestal type:				
	Average value under \$1,000.....	544	191	1,058	332
	Average value \$1,000 or over.....	1,089	5,105	1,374	2,507
	Vertical (upright) drilling machines:				
35412 21	Plain-upright:				
	Average value under \$1,000.....	13,429	2,195	2,770	1,039
	Average value \$1,000 or over.....	222	796	140	289
35412 23	Heavy duty (manufacturing).....	177	1,010	196	240
35412 25- 29	All other vertical (upright) drilling machines, including indexing turret head.....	256	6,577	79	198
35412 31- 49	Radial drilling machines.....	2,476	24,977	614	5,607
	Multiple spindle drilling machines (cluster of spindles driven from one central power unit):				
35412 51	Adjustable joint.....	174	2,107		
35412 53- 55	Fixed center and rail mounted.....	2,41	2,935		
35412 61	Automatic drilling machines (combination, horizontal-vertical, opposed heads).....	2,267	211,821	348	8,911
35412 69	All other automatic multiple-spindle drilling machines.....	22	668		
35412 81- 99	All other drilling machines, including deep-hole drilling machines....	21,424	213,660	469	9,861
35413 --	Gear cutting machines:				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	40,909	(X)	23,501
	As reported on Census Form M35W (all with an average value over \$1,000) <sup>1</sup> .....	1,371	39,534	806	22,661
35413 71	Gear tooth finishing machines.....	531	11,674	157	4,406
35413 11- 13	Gear hobbers.....	279	7,501	227	5,733
35413 31- 59, 99	All other gear cutting machines.....	561	20,359	422	12,522
35414 --	Grinding and polishing machines (except gear-tooth grinding, lapping, polishing and buffing machines):				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	144,208	(X)	91,430
	As reported on Census Form M35W <sup>1</sup> .....	52,446	137,040	52,925	89,367
	External cylindrical grinding machines:				
35414 11	Plain.....	225	7,097	194	5,466
35414 13	Universal.....	318	6,965	247	4,599
35414 15	Roll grinders.....	75	5,690	29	3,636
35414 16	Centerless grinders.....	408	10,065		
35414 19	All other external cylindrical grinding machines.....	311	15,637	630	12,337

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3541- --	METAL-CUTTING MACHINE TOOLS—Continued.				
35414 --	Grinding and polishing machines (except gear tooth grinding, lapping, polishing and buffing machines)—Continued				
	As reported on Census Form M35W <sup>1</sup> —Continued				
	Surface grinding machines:				
35414 31	Rotary table type.....	583	7,830	639	7,695
35414 33	Reciprocating table type (including face grinders).....	<sup>3</sup> 4,229	<sup>3</sup> 20,098	2,358	10,270
35414 39	All other surface grinding machines (including planer type).....	50	232	( <sup>4</sup> )	( <sup>4</sup> )
35414 43	Bench, floor, and snag grinders:				
	Bench (all with an average value under \$1,000).....	28,136	1,737	33,152	1,908
35414 45	Floor and snag grinders:				
	Average value under \$1,000.....	2,897	704	3,063	950
	Average value \$1,000 or over.....	122	279		
35414 51	Tool and cutter grinding machines:				
	Universal.....	<sup>3</sup> 1,106	<sup>3</sup> 4,173	937	2,543
35414 55	Special (broach, drill, mill, saw, hob, and tap):				
	Average value under \$1,000.....	1,400	638	893	279
	Average value \$1,000 or over.....	777	5,427	1,062	3,737
35414 65	Polishing and buffing machines:				
	Floor type:				
	Average value under \$1,000.....	426	133	349	127
	Average value \$1,000 or over.....	721	2,148	568	2,647
35414 61	Bench type*.....	1,345	143	1,253	2,839
35414 66	Speed lathes*.....	391	146		
35414 67	Swing frame, sheet metal and tube polishing.....	<sup>3</sup> 147	<sup>3</sup> 936		
35414 63, 69	All other polishing and buffing machines (including abrasive belt, drum, and disc lathes):				
	Average value under \$1,000.....	811	296	46,618	426,232
	Average value \$1,000 or over.....	606	4,875		
35414 75	Honing and lapping machines:				
	Honing machines (except gear honing), internal*.....	1,718	4,661	646	2,437
35414 76-81	All other honing and lapping machines (including external and combination boring and turning honing machines and flat and cylindrical surface lapping machines, except gear lapping)*.....	<sup>3</sup> 438	<sup>3</sup> 2,736	287	1,665
35414 21-25, 41, 49, 71, 91-99	All other grinding machines (including internal cylindrical, disc, and thread grinders):				
	Average value under \$1,000.....	<sup>3</sup> 3,520	<sup>3</sup> 793	46,618	426,232
	Average value \$1,000 or over.....	1,686	33,601		
35415 --	Lathes:				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	163,449	(X)	98,599
	As reported on Census Form M35W <sup>1</sup> .....	19,656	154,763	16,983	98,679
35415 11	Bench lathes (except bench turret lathes)*.....	5,299	4,991	6,700	2,247
	Manufacturing and tool room lathes:				
35415 21	Floor-engine-tool room (light and heavy duty):				
	Up to and including 16" swing over cross slide:				
	Average value under \$1,000.....	2,183	1,864	5,562	18,723
	Average value \$1,000 or more.....	6,823	33,333		
35415 23	17" to 23" swing.....	324	6,471	526	6,075
35415 25	24" to 36" swing.....	46	1,980	107	4,302
35415 29	Over 36" swing.....	9	857	18	2,431
35415 33-39	All other manufacturing and tool room lathes, including gap, manufacturing (multitool automatics) and hollow spindle (oil field)....	<sup>5</sup> 180	<sup>5</sup> 3,267	( <sup>6</sup> )	( <sup>6</sup> )
	Turret lathes:				
35415 51-53	Bench and floor light duty type with turret attachment, and ram type.	<sup>5</sup> 1,361	<sup>5</sup> 11,649	<sup>7</sup> 513	<sup>7</sup> 7,349
35415 55	Saddle type.....	123	5,366	142	5,807
	Automatic chucking lathes:				
35415 61	Single spindle.....	695	25,413	304	9,639
35415 65	Multiple spindle.....	195	16,233	152	8,335
	Automatic between center lathes:				
35415 71	Single spindle.....	174	5,757	155	5,092
35415 75	Multiple spindle.....				
35415 81, 88	Screw (bar) machines.....	1,278	30,494	901	14,743
35415 77, 87, 89-99	All other lathes (including right angle carriage lathes (T-lathes) and boring and combination boring and turning lathes).....	<sup>5</sup> 966	<sup>5</sup> 7,088	<sup>6</sup> 1,903	<sup>6</sup> 13,936

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3541- --	METAL-CUTTING MACHINE TOOLS—Continued				
35416 --	Milling machines:				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	112,724	(X)	89,406
	As reported on Census Form M35W <sup>1</sup> .....	16,683	106,126	11,004	89,315
35416 11	Bench and hand milling machines (including knee-type bench milling machines):				
	Average value under \$1,000.....	1,087	458	476	703
	Average value \$1,000 or over.....	399	1,179		
	Knee-type milling machines (except bench type):				
	Horizontal:				
35416 21	Plain.....	609	10,729	499	5,631
35416 23	Universal.....	206	3,604	201	2,812
	Vertical:				
35416 26	2 horsepower and under.....	<sup>8</sup> 7,800	<sup>8</sup> 15,932	5,799	14,762
35416 28	Over 2 horsepower.....	252	5,574		
35416 29	All other knee-type milling machines.....	<sup>8</sup> 43	<sup>8</sup> 483	(NA)	(NA)
	Bed type milling machines:				
35416 31	Single spindle.....	384	7,087	242	3,514
35416 35	Multiple spindle and special purpose machines.....	142	16,054	179	20,279
35416 41	Planer type milling machines.....	23	4,113	20	4,305
35416 51	Profile machines and duplicators.....	434	14,637	363	21,840
35416 57	Die sinking machines.....	379	2,740		
35416 61	Thread milling machines.....	13	419	17	591
35416 95	Engraving machines, drum type millers, cam millers, and pantograph millers.....	<sup>8</sup> 74	<sup>8</sup> 460	3,208	14,878
35416 71	Ram type.....	777	4,725		
35416 53-55, 91-93, 99	All other milling machines (including skin millers and spar millers)...	<sup>8</sup> 4,061	<sup>8</sup> 17,932		
35418 --	Other machine tools (including those designed primarily for home work-shops, laboratories, garages, etc.), total <sup>9</sup> .....	(X)	152,442	(X)	98,270
	Products in the census of manufactures and on Census Form M35W:				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	100,820	(X)	86,679
	As reported on Census Form M35W <sup>1</sup> .....	23,658	100,466	(NA)	82,720
	Broaching machines:				
	Hydraulic:				
35417 11	Horizontal.....	50	2,078	109	4,377
35417 12, 13	Vertical and rotary.....	72	2,697		
	Mechanical:				
35417 14, 15	Horizontal and vertical.....	36	2,610	67	3,607
35417 16	Continuous chain type.....				
35417 19	All other broaching machines.....	31	1,286		
35417 31-39	Planners (including double housing, die block and open side).....				
	Shapers (except gear shapers) and slotters:				
	Horizontal (plain and universal):				
35417 41	Under 16" stroke.....	385	417	495	2,306
35417 43	16" stroke and over.....	130	1,360		
35417 45, 49	Vertical and other shapers and slotters.....	( <sup>10</sup> )	( <sup>10</sup> )		
	Sawing and cut-off machines:				
	Power hack saws:				
35417 61	Average value under \$1,000.....	2,156	338	2,309	301
	Average value \$1,000 or over.....	499	1,711	699	1,063
35417 63	Circular cut-off saws.....	<sup>11</sup> 130	<sup>11</sup> 1,177	39	353
35417 65	Abrasive cut-off saws:				
	Average value under \$1,000.....	1,178	629	942	506
	Average value \$1,000 or over.....	502	1,922	425	1,020
35417 67	Band saw cut-off saws.....	<sup>11</sup> 984	<sup>11</sup> 6,898	( <sup>11</sup> )	( <sup>11</sup> )
35417 69	All other sawing and cut-off machines:				
	Average value under \$1,000.....	<sup>11</sup> 5,228	<sup>11</sup> 2,796	<sup>11</sup> 3,546	<sup>11</sup> 1,772
	Average value \$1,000 or over.....	233	3,661	<sup>11</sup> 1,303	<sup>11</sup> 5,127
	Tapping machines:				
35417 72	Vertical.....	12204	12807	388	1,903
35417 73	Horizontal and radial arm.....				
35417 74, 79	All other tapping machines (including nut, coupling, and sheel)...	<sup>12</sup> 163	<sup>12</sup> 1,753		

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3541- --	METAL-CUTTING MACHINE TOOLS—Continued				
35418 --	Other machine tools (including those designed primarily for home work-shops, laboratories, garages, etc.) <sup>9</sup> —Continued				
	Products in the census of manufactures and on Census Form M35W—Con.				
	As reported on Census Form M35W <sup>1</sup> —Continued				
35417 71	Contour sawing and filing machines (including band type):				
	Average value under \$1,000.....	4,165	987	1,936	516
	Average value \$1,000 or over.....	1,534	5,020	2,362	4,434
	Threading machines (except thread millers and thread grinders):				
35417 75	Bolt.....	(13)	(13)	1,114	3,592
35417 77	Pipe and nipple.....	13,284	13,105		
35417 78	All other threading machines.....	134,156	132,103		
35417 17	Centering machines.....	22	408	62	449
35417 21	Keysetting machines.....				
35417 83	Pointing, chamfering, facing, shaving, grooving, counter sinking, burring, forming, and drilling machines (excluding gear-tooth machines)*.....	277	1,830		
35417 87	Transfer machines containing multiple stations for boring, broaching, drilling, grinding, turning, milling, tapping, reaming, counter boring, measuring, etc. (including way, rotary index, center column, trunnion, plain, or pallet transfer types).....	365	43,637	(NA)	51,394
35417 81, 85, 91-99	All other metal cutting machine tools* <sup>14</sup> .....	108,74	1012,236		
	Machine tools designed primarily for home workshop, garages, etc. (metalworking and primarily metalworking only):				
35418 11	Drilling machines.....	24,728	3,465	(NA)	11,591
35418 31	Grinding and polishing machines.....	(NA)	8,153		
35418 51	Lathes.....	(NA)	1,248		
35418 71	Saws and sawing machines.....	(NA)	8,877	(NA)	11,591
35418 91	Other metal working (or primarily metalworking) types.....	(X)	29,879		
35419 --	Parts for metal cutting type machine tools, sold separately, and rebuilt machine tools, total.....	(X)	165,517	(X)	88,742
35419 11	Parts for metal cutting machine tools (sold separately).....	(X)	136,285	(X)	71,772
35419 41	Rebuilt metal cutting type machine tools.....	(X)	29,232	(X)	16,970
35410 00	Machine tools, n.s.k.....	(X)	24,382	(X)	18,861
3542- --	MACHINE TOOLS, METAL-FORMING TYPE, TOTAL.....	(X)	444,845	(X)	289,478
35421 --	Punching, shearing, bending and forming machines: <sup>15</sup>				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	92,542	(X)	68,443
	As reported on Census Form M35W <sup>1</sup> .....	21,527	88,046	(X)	64,094
35424 11	Punching and shearing machines:				
	Manually operated:				
	Average value under \$1,000.....	1,023	183	6,797	1,671
	Average value \$1,000 or over.....	(16)	(16)		
	Power:				
35424 21	Punches (including combination punching and shearing machines)....	17,974	1712,424	728	4,408
35424 31	Plate shearing machines (squaring, slitting, etc.).....	1,286	12,426	1,345	13,752
35424 41	Bar and angle shearing machines.....	68	2,713	84	4,093
35424 51	Rotary shearing machines.....	17127	174,188	281	3,244
35424 98	Other punching and shearing machines:				
	Average value under \$1,000.....	174,609	171,896	(X)	4,799
	Average value \$1,000 or over.....	16414	168,979		
	Bending and forming machines:				
	Power: <sup>18</sup>				
35425 11	Bending rolls, sheet and plate.....	695	16,663	545	4,089
35425 15	Bending rolls, angles, bars and shapes.....	71	804	131	1,160
35425 21	Bending brakes and folders.....	1,043	8,463	905	8,783
35425 25	Rotary bending and forming machines.....	184	1,580	2,394	3,700
35425 31	Rotary head and ram bending machines (pipe, bar, etc.).....	251	2,426	566	2,640
35425 35	Other bending and forming machines.....	1,013	10,375	1,011	6,589
35425 13, 23, 27, 33, 37	Other bending and forming machines (manual).....	189,769	184,926	13,186	5,166

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3542- --	MACHINE TOOLS, METAL-FORMING TYPE—Continued				
35422 --	Presses, including forging:				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	141,734	(X)	79,065
	As reported on Census Form M35W <sup>1</sup> .....	28,563	135,996	(X)	76,501
	Mechanical:				
	Open inclinable gap type:				
35422 11	9 tons and under:				
	Average value under \$1,000.....	2,803	4,215	5,099	6,949
	Average value \$1,000 or over.....				
35422 12	10 to 50 tons.....	192,017	197,441		
35422 13	51 tons and over.....	191,048	1910,677	441	3,320
35422 15, 17	End wheel type, including horn fixed and adjustable type.....	1934	19247	207	295
	Vertical straight sided and arch frame, excluding knuckle joint (including cam and crank):				
	Single action:				
	Single point:				
35422 21	200 tons and under.....	123	3,511	106	2,278
	201 tons and over.....	71	7,900		
	Two point:				
35422 24	500 tons and under.....	370	14,851	141	6,454
	501 tons and over.....	31	4,092		
35422 27- 28	Four point.....	100	12,869	31	4,521
	Double and triple action (including toggle):				
35422 31- 33	Single point.....	29	1,519	31	6,331
	Two and four point:				
35422 35- 37	1,000 tons and under.....	72	14,442		
35422 39	1,001 tons and over.....				
	High speed automatic type, with feed (include multiple transfer):				
35422 41	50 tons and under.....	19185	193,739	117	1,499
35422 43	51 to 200 tons.....	182	7,739	53	2,450
35422 45	201 tons and over.....			6	614
	Knuckle joint:				
35422 51	500 tons and under.....	15	577	21	717
35422 53	501 tons and over.....				
35422 55	Horizontal.....	(20)	(20)	328	1,765
35422 57	Gap or C-frame.....	19272	194,454		
35422 58	Bulldozers.....	(20)	(20)	1,930	7,072
35422 59	All other mechanical presses:				
	Average value under \$1,000 <sup>19</sup> .....	204,527	201,207		
	Average value \$1,000 or over.....	20383	206,702		
	Hydraulic and pneumatic presses (metalworking only):				
	Vertical single action:				
	Housing or straight column type:				
35422 61	500 tons and under.....	21502	214,654	1,165	2,255
35422 62, 63	501 tons and over.....	13	1,693	16	2,403
35422 64- 66	Open rod type.....	154	1,878	238	4,426
	Gap or C-frame:				
35422 68	50 tons and under.....	212,214	215,720	1,741	3,652
35422 70	51 to 500 tons.....	92	1,135	96	1,388
35422 69	501 tons and over.....	-	-		
35422 71, 72	Vertical double action (2 slide).....	(22)	(22)	14	847
35422 73	Vertical triple action.....	(22)	(22)	(22)	(22)
	Horizontal (except extrusion) type:				
35422 74	500 tons and under.....	2125	21332	43	523
35422 75	501 to 1,500 tons.....	-	-	10	2,101
35422 76	1,501 tons and over.....	-	-		
35422 77	Extrusion presses.....	35	4,812	46	8,302
35422 81	Stretch wrap forming machines.....	(22)	(22)	(22)	(22)
35422 79	All other hydraulic presses:				
	Average value under \$1,000 <sup>21</sup> .....	22929	22410	(X)	225,814
	Average value \$1,000 or over.....	22641	227,663		

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3542- --	MACHINE TOOLS, METAL-FORMING TYPE—Continued				
35422 --	Presses, including forging—Continued				
	As reported on Census Form M35W—Continued				
35422 91	Manual presses (arbor, straightening, forcing, and assembling):				
	Average value under \$1,000.....	11,696	1,517	5,482	525
	Average value \$1,000 or over.....				
35423 --	Other metal forming machine tools, including forging machines, total <sup>23</sup> ....	(X)	71,683	(X)	60,791
	Products included in both the census of manufactures and on Form M35W:				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	66,629	(X)	59,067
	As reported on Census Form M35W <sup>1</sup> .....	6,716	64,164	(X)	52,587
	Forging machines:				
35423 11-	Hammers.....	82	1,923	88	1,623
25 }					
35423 31,	Headers and upsetters and forging rolls.....	315	11,186		
41 }					
35423 51,	Other forging machinery, including swaging machinery.....	428	9,238	(X)	15,764
98 }					
35428 11	Riveting machines (except hand held portable types).....	242,208	244,090	3,972	5,020
	Metal container making machines:				
35428 21	Can.....	986	19,277		
	Other metal container making machines (including barrel and drum).	183	1,518	816	18,625
35428 31	Die casting machines.....	261	12,121	170	6,188
35428 53	Thread rolling machinery.....	244	2,852	135	1,749
35428 55-	Spinning lathes (flow turn, hydros핀 and spin forge) and marking				
59 }	machines, knurling machines, etc.....	242,009	241,959	1,375	1,889
35423 97	All other metal forming machines.....	(X)	5,054	(X)	1,724
35424 --	Parts for metal forming machine tools and rebuilt metal forming machinery, total.....	(X)	118,220	(X)	78,190
35424 11	Parts for metal forming machine tools, except parts and attachments for electric and pneumatic power-driven hand tools.....	(X)	112,376	(X)	76,152
35424 75	Rebuilt metal forming type machine tools.....	(X)	5,844	(X)	2,038
35420 00	Machine tools, metal forming types, n.s.k.....	(X)	20,666	(X)	2,989
				Total shipments, including interplant transfers (\$1,000)	
	Product			1963	1958
3544- --	SPECIAL DIES AND TOOLS, DIE SETS, JIGS, AND FIXTURES, AND INDUSTRIAL MOLDS, TOTAL.....			1,608,135	1,320,389
35441 --	Special dies and tools, die sets, jigs, and fixtures, total.....			1,251,706	1,157,343
35441 12	Jigs and fixtues, all types.....			230,903	291,819
	Dies:				
35441 21	Press dies (except forging and extrusion dies).....			488,355	339,689
35441 31	Forging dies (all types).....			35,574	25,428
35441 51	Die casting dies (molds).....			90,533	44,991
35441 57	Carbide dies (include wire and rod drawing cold heading and cold extrusion dies).....			30,272	
35441 61	All other dies (exclude carbide and cold extrusion dies).....			74,391	61,235
35441 71	Standard catalog components and parts for jigs, fixtures and dies including die sets.....			46,589	36,282
35441 81	Special gages of checking fixtures.....			39,025	29,889
35441 91	Other specially designed tooling, prototypes, and models.....			131,495	74,716
35441 00	Special dies and tools, die sets, jigs and fixtures, n.s.k.....			84,569	<sup>25</sup> 253,294
35442 --	Industrial molds, total <sup>26</sup> .....			220,561	163,046
	Industrial molds, metal:				
35442 13	For casting metals (foundry molds, except ingot molds).....			15,218	17,481
35442 33	For molding rubber products, including tire molds.....			35,458	24,987
35442 53	For molding plastics.....			112,679	60,174
35442 59	Other.....			30,266	24,001
35442 63	Industrial molds, except metal.....			6,116	4,228
35442 00	Industrial molds,n.s.k.....			20,824	32,175
35440 00	Special dies and tools, die sets, jigs, and fixtures, n.s.k.....			135,868	( <sup>25</sup> )

See footnotes at end of table.

TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments, including interplant transfers (\$1,000)	
		1963	1958
3545- --	MACHINE TOOL ACCESSORIES AND MEASURING DEVICES, TOTAL.....	731,716	470,197
35451 --	Small cutting tools for machine tools and metalworking machinery, total.....	464,432	301,209
	Broaches: (including replaceable blades sold separately; but excluding holders and burnishing bars):		
35451 13	High speed steel.....	19,659	13,385
35451 15	Carbide, solid and tipped (excluding tips and blanks sold separately).....	5,026	
	Twist drills (including combined drills and countersinks; excluding gun drills and masonry drills):		
35451 21	Carbon steel.....	2,785	4,219
	High-speed steel:		
35451 22	Taper shank.....	20,500	45,515
35451 24	Straight shank.....	52,299	
35451 26	Carbide, solid and tipped (excluding tips and blanks sold separately).....	6,992	5,631
35451 27	Countersinks (excluding combination drills and countersinks and interchangeable pilots).....	2,851	6,889
35451 29	Counter bores, including spot facers, etc. (excluding interchangeable pilots).....	6,452	
	Reamers, all types, including finished replaceable blades sold separately (excluding gunreamers):		
35451 31	Carbon steel.....	2,926	3,712
35451 33	High-speed steel.....	15,387	13,457
35451 36	Carbide, solid and tipped (excluding tips and blanks sold separately).....	5,570	275,042
	Hobs (gear, spline, serretion and sprocket):		
35451 41	Unground.....	7,374	3,758
35451 45	Ground.....	5,176	3,607
35451 53	Gear shaper cutters.....	6,562	11,908
35451 55	Gear shaving cutters.....	4,898	
	Milling cutters:		
35451 58	Form relieved cutters, high speed steel and carbide (including multiple thread milling cutters)....	10,274	3,235
	End mills, including solid or tipped, fishtail, die sinking, contour, router, tracer, hollow mill cutters and shell mill, etc. (excluding all inserted blade types):		
35451 61	High speed steel.....	21,207	2711,924
35451 62	Carbide, solid and tipped (excluding tips and blanks sold separately).....	4,219	
	Replaceable inserted blade milling cutters:		
35451 64	High speed steel.....	3,402	4,330
35451 65	Carbide, solid and tipped (excluding tips and blanks sold separately).....	4,812	18,569
35451 68	Slitting saws and screw slotting cutters.....	5,749	2712,320
	Milling cutters, n.e.c.		
35451 66	High-speed steel.....	8,735	
35451 69	Carbide, solid and tipped (excluding tips and blanks sold separately).....	3,785	
	Single-point tools (cutting tools with integral or bonded shank and cutting element):		
	Square, rectangular, round or other cross section, single or double end for turning, planing, shaping, forming, facing, cutting, cutting-off, etc. (excluding circular form tools):		
35451 71	High-speed steel.....	11,149	4,369
35451 74	Carbide, solid and tipped (excluding tips and blanks sold separately).....	24,101	2715,565
35451 75	Other materials (including diamond tipped).....	2,825	
35451 77	Circular form tools, including circular form tool blanks.....	5,133	273,480
	Threading tools:		
	Taps (excluding taps in threading sets and screw plates and inserted chaser types):		
35451 78	Ground thread (high-speed steel).....	35,855	23,114
35451 79	Cut thread (carbon steel and high speed steel).....	6,877	5,647
35451 84	Thread dies, cutting types (excluding inserted chaser-type and dies in threading sets and screw plates).....	10,851	7,381
35451 85	Chasers and blades for taps and dies of inserted blade or chaser-type (excluding die heads and insert or collapsible tap bodies).....	14,274	8,279
35451 89	Other threading tools, including threading sets and screw plates.....	4,278	5,508
	Tips, blanks and inserts (sold separately):		
35451 81	Tips and blanks <sup>28</sup> .....	23,047	33,526
	Inserts: <sup>28</sup>		
35451 82	Throw-away type.....	29,345	
35451 83	Other.....	6,286	
	Other types of cutting tools for machine tools, n.e.c. including gun drills and gunreamers:		
35451 91	Carbon steel.....	5,545	12,208
35451 93	High-speed steel.....	20,815	
35451 97	Carbide, solid and tipped (excluding tips and blanks sold separately).....	20,134	
35451 00	Small cutting tools for machine tools and metalworking machinery, n.s.k.....	17,277	24,631

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments, including interplant transfers			
		(\$1,000)			
		1963	1958		
3545- --	MACHINE TOOL ACCESSORIES AND MEASURING DEVICES—Continued				
35452 --	Precision measuring tools.....	87,998	60,871		
35452 11	Machinists' precision tools: Comparators.....	8,816	7,191		
35452 13	Fixed size limit gages (American Gage Design type—C-S8-51): Fixture type.....	6,994	3,895		
35452 15	Thread type.....	6,001	6,078		
35452 17	Adjustable size limit gages.....	2,751	1,810		
35452 21	Gage blocks.....	2,556	1,967		
35452 61	Dial indicators.....	6,591	4,658		
35452 71	Pneumatic gages (manual and automatic).....	14,468	27,116		
35452 98	Other machinists' precision tools, including micrometers, calipers and dividers.....	36,814			
35452 00	Precision measuring tools, n.s.k.....	3,007	8,156		
35453 --	Other attachments and accessories for machines tools and metalworking machinery, total.....	152,570	96,168		
	Chucks:				
35453 11	Drill.....	7,547	7,099		
35453 13	Lathe.....	9,974	5,266		
35453 15	Other chucks, including die heads and tap bodies.....	4,630	2,465		
35453 21	Chuck holding devices (feeding fingers and collets, sleeves, sockets, drill heads, etc.).....	16,621	11,547		
35453 31	Tools for screw and automatic machines (box tools, hollow drills, work and tool holders, etc.) (except tap and dies).....	10,046	4,899		
35453 41	Other accessories and attachments for machine tools and metalworking machinery (except cutting tools)	84,715	48,757		
35453 51	Toolroom specialties, including levels, angle irons, plates, squares, sine bars, V-blocks, flats, vises, etc.....	11,832	7,099		
35453 00	Other attachments and accessories for machine tools and metalworking machinery, n.s.k.....	7,205	9,036		
35450 00	Machine tool accessories and measuring devices, n.s.k.....	26,716	11,949		
Product		Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3548- --	METALWORKING MACHINERY, EXCEPT MACHINE TOOLS, TOTAL.....	(X)	701,906	(X)	580,161
35481 --	Rolling mill machinery and equipment, total.....	(X)	222,211	(X)	252,164
35481 15	Hot rolling mill machinery, except tube rolling.....	(X)	105,141	(X)	134,503
35481 25	Cold rolling mill machinery.....	(X)	79,679	(X)	44,352
35481 35	Tube mill machinery.....	(X)	16,448	(X)	13,394
35481	Other.....	(X)	19,390	(X)	59,915
35481 00	Rolling mill machinery and equipment, n.s.k.....	(X)	1,553	(X)	-
35482 --	Power-driven hand tools, including parts and attachments, total.....	(X)	319,881	(X)	210,628
	Portable power-driven hand tools (power-driven hand tools which are controlled by hand and the position of which in operation need not be fixed, including high cycle):				
	Electric:				
	Drills:				
35482 06	1/4" chuck size and under.....	1,992,734	21,375	1,522,312	25,823
35482 08	5/16" up to and including 3/8".....	989,866	11,206		
35482 12	1/2" and larger.....	742,420	13,892		
	Saws:				
	Circular:				
35482 16	7" blade and smaller.....	1,034,860	22,267	1,488,944	36,053
35482 17	Over 7" blade.....	137,657	7,371		
35482 18	Jig, saber, reciprocating.....	1,175,743	18,304		
35482 22	Screwdrivers and nut-runners.....	19,532	1,886	(X)	29,770
35482 24	Hammers.....	42,223	6,434		
35482 25	Impact wrenches.....	55,672	4,519		
35482 27	Planners and rounthers.....	100,261	4,863		
35482 33	Grinders, polishers, circular sanders (except bench grinders).....	460,795	12,941		
35482 34	Sanders (belt, oscillating and reciprocating).....	655,726	12,374		
35482 29	Other electric-powered hand tools.....	(X) 9,898			
35482 05	Parts, attachments and accessories for electric-powered hand tools (sold separately).....	(X)	43,388	(X)	30,193
	Pneumatic:				
35482 35	Drills, screwdrivers and nut-runners.....	121,072	20,234	29,26,497	29,5,684
35482 37	Percussion tools (such as runners, riveters, chippers, scalers holder-ons).....	55,627	9,097	(X)	33,449
35482 41	Impact wrenches.....	104,786	18,721		
35482 43	Grinders, polishers, sanders.....	93,523	12,788		
35482 49	Other pneumatic-powered hand tools.....	(X) 19,696			

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3548- --	METALWORKING MACHINERY, EXCEPT MACHINE TOOLS—Continued				
35482 --	Power-driven hand tools, including parts and attachments—Continued				
	Portable power-driven hand tools (power-driven hand tools which are controlled by hand and the position of which in operation need not be fixed, including high cycle):				
	Pneumatic:				
35482 51	Parts, attachments and accessories for pneumatic-powered hand tools (sold separately).....	(X)	43,855	(X)	26,133
35482 61	Powder-actuated hand tools.....	50,916	2,073	(S)	1,839
35482 00	Power-driven hand tools, including parts and attachments, n.s.k.....	(X)	2,699	(X)	12,094
35483 --	Acetylene welding and cutting apparatus.....	(X)	54,648	(X)	38,088
	Welding and cutting apparatus (except electric):				
35483 21	Oxygen-acetylene generating equipment.....	(X)	54,081	(X)	30,35,706
35483 31	All other acetylene welding and cutting apparatus, including machine, and hand-cutting and welding equipment.....				
35483 00	Acetylene welding and cutting apparatus, n.s.k.....	(X)	567	(X)	2,382
35484 11	Automotive maintenance equipment(such as motor analyzers, wheel balancers, spark plug cleaners, wheel spinners, frame straighteners, etc.).....	(X)	47,691	(X)	44,183
35485 --	Other metalworking machinery, except machine tools, n.e.c.....	(X)	36,564	(X)	17,627
35485 45	Drawing machines, draw benches, and machines for weaving and other wire fabricating:				
	As reported on the census of manufactures <sup>1</sup> .....	(X)	28,864	(X)	17,627
	As reported on Census Form M35W <sup>1</sup> .....	1,869	21,320	1,090	17,520
	Machines for weaving and other wire fabricating (barbed wire, poultry netting, woven wire fence machines, etc.).....	1,542	12,900	587	4,645
	Wire drawing machines and draw benches.....	327	8,420	503	12,875
35485 98	All other metalworking machinery, except machine tools.....	(X)	317,308	(X)	(NA)
35485 00	Other metalworking machinery, except machine tools, n.s.k.....	(X)	392	(X)	-
35480 00	Metalworking machinery, except machine tools, n.s.k.....	(X)	20,911	(X)	17,471

Note: The nomenclature used to describe products (Industries 3541 and 3542) included in Current Industrial Reports Series M35W "Metalworking Machinery" was revised for many products between 1958 and 1963, accordingly, these data may not be strictly comparable.

\*Includes some machines with an average value of under \$1,000.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>For these products, data were also collected on Census Quarterly Form M35W. In lieu of asking for detailed statistics on these products in the census of manufactures, respondents were asked to report only value of shipments for specified classes of products for which separate figures had previously been collected on the Quarterly Form M35W. In most cases, the value figures reported in the census of manufactures for each class of products agreed closely with the corresponding figures reported in the quarterly survey. However, there were some differences between the census figures and the quarterly survey figures. These variations were due primarily to the following reasons:

- Census of manufactures reports correctly including all accessories or attachments ordered and shipped with the machine. In some cases the quarterly survey represents only the value of the basic machine. This is the most significant factor for these differences.
- Use of different bases for reporting value (company sales vs. factory production).
- Use of estimates in reporting data on the quarterly survey, whereas census of manufactures figures generally represent more exact shipments figures.
- Better coverage in the census of manufactures program. Quarterly current commodity survey detail for 1963 in most instances have been revised to reflect data from respondents not previously included. For product code 3548545, coverage in the quarterly survey will be supplemented by adding respondents not currently in the survey but making the specified product according to their census of manufactures report.

<sup>2</sup>Some machines with an average value of under \$1,000 for codes 3541231, 3541253, and 3541261 are included with code 3541299.

<sup>3</sup>All machines with an average value of under \$1,000 for codes 3541433, 3541451 and 3541467 are included with "All other grinding machines."

<sup>4</sup>Product code 3541439 included with "All other grinding machines."

<sup>5</sup>Some machines with an average value of under \$1,000 for codes 3541533 and 3541551 are included with code 3541599.

<sup>6</sup>"All other manufacturing and toolroom lathes" included with "All other lathes." Also "All other lathes" includes brush and floor light duty type turret lathes with turret attachments.

<sup>7</sup>Data are limited to ram type turret lathes.

<sup>8</sup>Some machines with an average value of under \$1,000 for codes 3541626, 3541629 and 3541695 are included with code 3541699.

<sup>9</sup>Includes data for codes 3541711-3541799 and 3541811-3541891.

<sup>10</sup>"Vertical and other shapers and slotters" included with "All other metal-cutting machine tools."

<sup>11</sup>All machines with an average value of under \$1,000 for codes 3541763 and 3541767 are included with code 3541769. For 1958, code 3541767 included with code 3541769.

<sup>12</sup>All machines with an average value of under \$1,000 for code 3541772 are included with code 3541779.

<sup>13</sup>Bolt threading machines and all machines with an average value of under \$1,000 for code 3541777 are included with 3541778.

<sup>14</sup>Includes for 1963 reaming machines (including rifling machines); screw and nut slotting machines; electro-erosion machines; ultrasonic machines; and electrolytic machines.

<sup>15</sup>Includes data for product codes 3542411-98 and 3542511-37

<sup>16</sup>Manually operated punching and shearing machines valued at \$1,000 or over are included with other punching and shearing machines.

<sup>17</sup>Machines with an average value of under \$1,000 for codes 3542421 and 3542451 are included with product code 3542498.

<sup>18</sup>For 1963, power type bending and forming machines with an average value of under \$1,000 are included with manual machines.



**TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Footnotes for Table 6A—35C—Continued

<sup>19</sup>For 1963, all machines with an average value of under \$1,000 for codes 3542212, 3542213, 3542215, 3542241, and 3542257 are included with code 3542259, "All other mechanical presses."

<sup>20</sup>Figures for codes 3542255 and 3542258 are included in code 3542259.

<sup>21</sup>For 1963, all machines with an average value of under \$1,000 for codes 3542261, 3542268, and 3542274 are included with 3542279, "All other hydraulic presses."

<sup>22</sup>For 1963, figures for codes 3542271, 3542272, 3542273, and 3542281 are included in code 3542279. For 1958, figures for codes 3542273, and 3542281 are included with code 3542279.

<sup>23</sup>Includes data for product codes 3542311-98 and 3542811-59

<sup>24</sup>Some machines with an average value of under \$1,000 for code 3542811 are included with codes 3542855-59, "Spinning lathes."

<sup>25</sup>In 1958, product code 3544000 has been combined with product code 3544100.

<sup>26</sup>Excludes industrial molds made and used in the same establishment.

<sup>27</sup>For 1958, data for these products include tips sold separately but exclude blanks.

<sup>28</sup>For 1963, respondents were requested to use the following definitions of blanks, tips, and inserts:

Blanks are unground material, cast or formed, from which a solid tool or cutting tip can be made.

Tips are a finished or semifinished form ready to be brazed, soldered, or otherwise bonded to a shank to form a cutting tool.

Inserts are replaceable mechanically held cutting components of cutting tools, ground on all surfaces or on top and bottom.

The 1958 report form carried no definitions for these products.

<sup>29</sup>Data for product code 3548235 are limited to pneumatic drills. Pneumatic screwdrivers and nut-runners are included with "Other pneumatic-powered hand tools."

<sup>30</sup>The data published in the 1958 report for these products have been revised. As a result, it is not possible to publish separate data for these products without revealing the operation of individual companies.

<sup>31</sup>A major portion of this value represents metalworking assembly and automation equipment not elsewhere classified.

**TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
354	Metalworking machinery.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
3541	Metal-cutting machine tools <sup>2</sup> .....1963..	82	112
	.....1958..	52	113
35411	Boring machines.....1963..	47	127
	.....1958..	38	120
35412	Drilling machines.....1963..	88	71
	.....1958..	45	79
35413	Gear cutting machines.....1963..	66	125
	.....1958..	40	122
35414	Grinding and polishing machines (except gear-tooth grinding, lapping, polishing and buffing machines).....1963..	56	119
	.....1958..	50	117
35415	Lathes.....1963..	58	125
	.....1958..	44	109
35416	Milling machines.....1963..	85	106
	.....1958..	54	134
3542	Metal tools, metal-forming type.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
35421	Punching, shearing, bending and forming machines.....1963..	83	173
	.....1958..	90	117
35422	Presses, including forging.....1963..	65	93
	.....1958..	29	125
3544	Special dies and tools, die sets, jigs and fixtures, and industrial molds.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
3545	Machine tool accessories and measuring devices.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	77	124
3548	Metalworking machinery, except machine tools.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
35482	Power-driven hand tools, including parts and attachments.....1963..	232	81
	.....1958..	109	114

<sup>1</sup>Not shown because comparable quantity data were not obtained for a significant portion of these products.

<sup>2</sup>Adjusted to include products not shown separately below (product classes 35418 and 35419) as well as a minor amount of machine tools not specified by kind.

TABLE 6C. **Product Classes—Value Shipped by All Manufacturing Establishments:**  
**1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3541-	Metal-cutting machine tools.....	<sup>2</sup> 899,752	<sup>2</sup> 832,076	<sup>2</sup> 719,799	<sup>2</sup> 746,795	<sup>2</sup> 649,112	<sup>2</sup> 587,481	986,430	414,746
35411	Boring machines.....	<sup>3</sup> 67,930	<sup>3</sup> 61,366	<sup>3</sup> 51,547	<sup>3</sup> 46,939	<sup>3</sup> 46,248	<sup>3</sup> 51,563	114,443	25,825
35412	Drilling machines.....	<sup>3</sup> 52,018	<sup>3</sup> 53,228	<sup>3</sup> 36,824	<sup>3</sup> 38,873	<sup>3</sup> 33,412	<sup>3</sup> 30,023	86,066	33,517
35413	Gear cutting and finishing machines.....	<sup>3</sup> 39,534	<sup>3</sup> 35,851	<sup>3</sup> 36,403	<sup>3</sup> 34,309	<sup>3</sup> 24,682	<sup>3</sup> 22,661	48,111	17,719
35414	Grinding and polishing machines (excluding gear tooth grinding, honing, lapping, polishing, and buffing machines.....	<sup>3</sup> 137,040	<sup>3</sup> 127,960	<sup>3</sup> 121,018	<sup>3</sup> 116,972	<sup>3</sup> 93,820	<sup>3</sup> 89,367	154,288	56,364
35415	Lathes.....	<sup>3</sup> 154,763	<sup>3</sup> 152,271	<sup>3</sup> 126,488	<sup>3</sup> 135,403	<sup>3</sup> 119,478	<sup>3</sup> 98,679	206,886	92,908
35416	Milling machines.....	<sup>3</sup> 106,126	<sup>3</sup> 95,787	<sup>3</sup> 73,710	<sup>3</sup> 79,438	<sup>3</sup> 73,275	<sup>3</sup> 89,315	122,518	35,278
35418	Other machine tools (including those designed primarily for home workshops, laboratories, etc.).....	152,442	152,480	134,298	143,345	129,767	98,270	146,708	91,626
35419	Parts for metal-cutting type machine tools, sold separately, and rebuilt machine tools	165,517	132,421	117,760	131,058	108,891	88,742	101,960	57,109
35410	Metal-cutting machine tools, n.s.k.....	24,382	(20,712)	(21,751)	(20,458)	(19,539)	18,861	5,450	4,400
3542-	Metal-forming machine tools.....	<sup>2</sup> 434,611	<sup>2</sup> 390,879	<sup>2</sup> 381,745	<sup>2</sup> 379,286	<sup>2</sup> 326,224	<sup>2</sup> 282,565	437,804	245,514
35421	Punching, shearing, bending, and forming machines.....	<sup>3</sup> 88,046	<sup>3</sup> 63,460	<sup>3</sup> 65,749	<sup>3</sup> 67,145	<sup>3</sup> 65,560	<sup>3</sup> 64,094	61,922	34,791
35422	Presses, including forging presses.....	<sup>3</sup> 135,996	<sup>3</sup> 109,555	<sup>3</sup> 111,383	<sup>3</sup> 104,971	<sup>3</sup> 84,573	<sup>3</sup> 76,501	217,369	97,855
35423	Other metal-forming machine tools, including forging machines.....	71,683	122,821	113,934	108,639	96,904	60,791	89,093	66,147
35424	Parts for metal-forming machine tools and rebuilt metal-forming machinery.....	118,220	90,258	86,437	94,889	75,267	78,190	66,029	39,078
35420	Metal-forming machine tools, n.s.k.....	20,666	(4,785)	(4,242)	(3,642)	(3,920)	2,989	3,391	7,643
3544-	Special dies and tools.....	1,608,135	1,850,487	1,509,200	1,751,237	1,541,745	1,320,389	1,181,461	402,893
35441	Special dies and tools, die sets, jigs, and fixtures.....	1,251,706	<sup>4</sup> 1,620,211	<sup>4</sup> 1,302,996	<sup>4</sup> 1,542,151	<sup>4</sup> 1,361,578	<sup>4</sup> 1,157,343	1,082,828	378,922
35442	Industrial molds <sup>5</sup> .....	220,561	230,276	206,204	209,086	180,167	163,046	98,633	23,971
35440	Special dies and tools, n.s.k.....	135,868	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	-	-
3545-	Machine tool accessories.....	731,716	704,595	590,479	603,672	564,028	470,197	541,031	324,423
35451	Small cutting tools for machine tools and metalworking machinery.....	464,432	467,163	385,243	400,641	371,209	301,209	291,042	204,778
35452	Precision measuring tools.....	87,998	76,789	61,836	63,238	60,430	60,871	110,033	36,421
35453	Other attachments and accessories for machine tools and metalworking machinery..	152,570	129,688	109,587	116,083	103,048	96,168	139,956	83,224
35450	Machine tool accessories and measuring devices, n.s.k.....	26,716	(30,955)	(33,813)	(23,710)	(29,341)	11,940	-	-
3548-	Metalworking machinery, n.e.c.....	701,906	659,816	605,795	620,542	598,061	580,161	399,493	(NA)
35481	Rolling-mill machinery and equipment.....	222,211	226,347	221,538	239,920	213,324	252,164	143,512	96,074
35482	Power-driven hand tools, including parts and attachments.....	319,881	286,355	261,181	253,682	249,072	210,628	170,460	112,198
35483	Acetylene welding and cutting apparatus....	54,648	49,639	41,664	42,309	39,340	38,088	26,822	26,777
35484	Automotive maintenance equipment.....	47,691	49,751	45,221	46,403	53,220	44,183	44,088	(NA)
35485	Metalworking machinery, except machine tools, n.e.c.....	36,564	29,127	19,183	21,172	23,256	17,627	14,611	16,874
35480	Metalworking machinery, n.e.c., n.s.k.....	20,911	(18,597)	(17,008)	(17,056)	(19,848)	17,471	-	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>These figures represent the sum of 5-digit product class data obtained from Current Industrial Reports Series M35W "Metalworking Machinery" and from the census of manufactures or the annual survey of manufactures.

<sup>3</sup>Source: Current Industrial Reports Series M35W, "Metalworking Machinery."

<sup>4</sup>Product class 35440 included with product class 35441 for 1958-1962.

<sup>5</sup>Excludes industrial molds made and used in the same establishment.



**TABLE 6D Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
<b>BORING MACHINES (35411)</b>			<b>MILLING MACHINES (35416)</b>			<b>PUNCHING, SHEARING, BENDING, AND FORMING MACHINES (35421)</b>		
United States, total....	66,342	52,791	United States, total....	112,724	89,406	United States, total....	92,542	68,443
Northeast.....	23,053	16,652	New England.....	21,694	17,434	New England.....	7,219	5,938
Connecticut.....	16,618	10,015	Connecticut.....	17,523	( <sup>2</sup> )	Connecticut.....	5,679	5,484
East North Central.....	42,062	36,139	Middle Atlantic.....	3,709	( <sup>2</sup> )	Middle Atlantic.....	20,508	12,732
Michigan.....	15,434	( <sup>2</sup> )	East North Central.....	83,986	70,434	New York.....	7,856	8,801
All other divisions.....	1,227	-	Illinois.....	16,468	15,925	Pennsylvania.....	11,784	2,866
			Michigan.....	5,213	( <sup>2</sup> )	East North Central.....	52,951	41,657
			Wisconsin.....	31,790	20,895	Ohio.....	27,446	20,110
<b>DRILLING MACHINES (35412)</b>	1963 <sup>1</sup>		Pacific.....	2,089	( <sup>2</sup> )	Indiana.....	1,991	( <sup>2</sup> )
United States, total....		55,278	California.....	2,089	( <sup>2</sup> )	Illinois.....	14,173	15,235
New England.....		8,475	All other divisions.....	1,246	( <sup>2</sup> )	Michigan.....	8,915	2,878
Connecticut.....		4,199				West North Central.....	5,578	3,212
Middle Atlantic.....		3,493	<b>OTHER MACHINE TOOLS (INCLUDING THOSE DESIGNED PRIMARILY FOR HOME WORKSHOPS, LABORATORIES, ETC.) (35418)</b>			Minnesota.....	3,074	( <sup>2</sup> )
New York.....		1,982	United States, total....	152,442	98,270	Missouri.....	2,504	1,300
North Central.....		33,586	New England.....	13,596	11,572	South and West.....	6,286	4,904
Ohio.....		11,721	Connecticut.....	3,779	( <sup>2</sup> )	California.....	2,081	1,593
Michigan.....		8,055	Middle Atlantic.....	11,168	8,037	<b>PRESSES, INCLUDING FORGING PRESSES (35422)</b>		
Wisconsin.....		8,401	New York.....	4,378	4,219	United States, total....	141,734	79,065
South and West.....		9,724	East North Central.....	113,070	68,626	New England.....	3,411	3,401
			Ohio.....	21,414	15,500	Connecticut.....	2,968	( <sup>2</sup> )
<b>GRINDING AND POLISHING MACHINES (EXCLUDING GEAR TOOTH GRINDING, HONING, LAPPING, POLISHING, AND BUFFING MACHINES) (35414)</b>	1963 <sup>1</sup>	1958	Indiana.....	3,103	1,321	Middle Atlantic.....	21,096	17,281
United States, total....	144,208	91,430	Illinois.....	24,602	21,141	New York.....	11,737	14,483
New England.....	46,498	30,595	Michigan.....	60,719	25,112	New Jersey.....	3,037	1,438
Massachusetts.....	23,636	20,351	Wisconsin.....	3,232	5,552	Pennsylvania.....	6,322	1,360
Connecticut.....	7,372	3,268	West North Central.....	9,255	5,509	East North Central.....	108,642	53,896
Middle Atlantic.....	21,681	12,388	South.....	1,680	( <sup>2</sup> )	Ohio.....	29,850	19,740
New York.....	5,511	3,985	Pacific.....	3,673	2,288	Indiana.....	3,537	1,105
Pennsylvania.....	15,629	( <sup>2</sup> )	California.....	3,487	( <sup>2</sup> )	Illinois.....	61,371	27,934
East North Central.....	66,582	44,223	<b>PARTS FOR METAL-CUTTING TYPE MACHINE TOOLS, SOLD SEPARATELY, AND REBUILT MACHINE TOOLS (35419)</b>			Michigan.....	11,407	( <sup>2</sup> )
Ohio.....	30,952	22,410	United States, total....	165,517	88,742	Wisconsin.....	2,477	( <sup>2</sup> )
Illinois.....	17,909	10,153	New England.....	33,183	25,553	West North Central.....	2,683	915
Michigan.....	15,513	10,902	Massachusetts.....	9,490	9,079	South.....	2,752	( <sup>2</sup> )
Wisconsin.....	1,713	( <sup>2</sup> )	Connecticut.....	11,140	6,889	West.....	3,150	( <sup>2</sup> )
West North Central.....	5,359	2,809	Middle Atlantic.....	16,437	8,030	<b>OTHER METAL-FORMING MACHINE TOOLS, INCLUDING FORGING MACHINES (35423)</b>		
Minnesota.....	2,940	( <sup>2</sup> )	New York.....	11,097	5,152	United States, total....	71,683	60,791
South and West.....	4,088	( <sup>2</sup> )	East North Central.....	109,100	52,422	New England.....	11,333	9,609
<b>LATHES (35415)</b>			Ohio.....	50,429	24,536	Connecticut.....	7,464	8,142
United States, total....	163,449	98,599	Indiana.....	3,693	2,447	Middle Atlantic.....	12,771	12,225
New England.....	40,149	20,994	Illinois.....	17,572	7,585	New York.....	6,826	5,638
Connecticut.....	20,446	9,754	Michigan.....	25,438	9,496	North Central.....	38,978	33,079
Middle Atlantic.....	12,145	10,202	Wisconsin.....	11,968	8,358	Ohio.....	21,814	21,831
New York.....	11,459	9,215	West North Central.....	3,942	1,676	Illinois.....	8,693	5,925
East North Central.....	110,147	66,773	South and West.....	2,855	( <sup>2</sup> )	Michigan.....	8,215	3,816
Ohio.....	84,250	48,111	California.....	1,980	( <sup>2</sup> )	South.....	1,875	( <sup>2</sup> )
Illinois.....	8,417	6,610				Pacific.....	6,726	( <sup>2</sup> )
Michigan.....	4,986	( <sup>2</sup> )	<b>PARTS FOR METAL-FORMING MACHINE TOOLS AND REBUILT METAL-FORMING MACHINERY (35424)</b>					
All other divisions.....	1,008	( <sup>2</sup> )	United States, total....	118,220	78,190	United States, total....	118,220	78,190
			New England.....	9,171	8,131	New England.....	9,171	8,131
			Connecticut.....	5,949	6,392	Connecticut.....	5,949	6,392

See footnotes at end of table.

TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
PARTS FOR METAL-FORMING MACHINE TOOLS AND REBUILT METAL FORMING MACHINERY (35424)—Continued			INDUSTRIAL MOLDS (35442)—Continued			OTHER ATTACHMENTS AND ACCESSORIES FOR MACHINE TOOLS AND METALWORKING MACHINERY (35453)		
Middle Atlantic.....	35,448	17,718	Middle Atlantic.....	45,936	42,826	United States, total...	152,570	96,168
New York.....	19,407	7,044	New York.....	11,599	10,307	New England.....	31,384	24,493
New Jersey.....	2,324	3,216	New Jersey.....	20,759	14,491	Massachusetts.....	3,390	( <sup>2</sup> )
Pennsylvania.....	13,717	7,458	Pennsylvania.....	13,578	18,028	Connecticut.....	22,013	15,126
East North Central.....	53,678	42,817	East North Central.....	121,399	77,285	Middle Atlantic.....	16,179	9,201
Ohio.....	19,300	28,466	Ohio.....	47,537	28,592	New York.....	11,976	6,317
Illinois.....	18,606	10,674	Indiana.....	12,906	9,544	New Jersey.....	1,606	1,264
Michigan.....	14,340	2,980	Illinois.....	35,348	18,680	Pennsylvania.....	2,597	1,620
West North Central.....	1,549	2,507	Michigan.....	22,302	17,243	East North Central.....	87,127	( <sup>2</sup> )
South.....	3,344	( <sup>2</sup> )	Wisconsin.....	3,306	3,226	Ohio.....	21,187	15,071
Pacific.....	15,030	( <sup>2</sup> )	West North Central.....	4,587	2,473	Indiana.....	7,782	( <sup>2</sup> )
SPECIAL DIES AND TOOLS, DIE SETS, JIGS, AND FIXTURES (35441)			Minnesota.....	1,932	1,043	Illinois.....	25,361	15,472
United States, total....	1,251,706	1,157,343	South.....	7,605	( <sup>2</sup> )	Michigan.....	27,927	14,556
New England.....	64,120	64,134	North Carolina.....	1,228	( <sup>2</sup> )	Wisconsin.....	4,870	( <sup>2</sup> )
New Hampshire.....	2,239	( <sup>2</sup> )	Georgia.....	2,291	( <sup>2</sup> )	West.....	6,199	( <sup>2</sup> )
Massachusetts.....	22,168	25,702	Florida.....	1,873	( <sup>2</sup> )	All other divisions.....	11,681	( <sup>2</sup> )
Rhode Island.....	7,608	7,815	West.....	17,981	18,360	Tennessee.....	1,467	( <sup>2</sup> )
Connecticut.....	31,382	27,684	California.....	16,077	17,065	ROLLING-MILL MACHINERY AND EQUIPMENT (35481)		
Middle Atlantic.....	181,247	179,918	SMALL CUTTING TOOLS FOR MACHINE TOOLS AND METALWORKING MACHINERY (35451)			United States, total...	222,211	252,164
New York.....	61,918	65,639	United States, total....	464,432	301,209	New England.....	18,821	19,664
New Jersey.....	42,824	40,883	New England.....	101,322	71,252	Middle Atlantic.....	103,348	127,314
Pennsylvania.....	76,505	73,396	Vermont.....	16,203	9,151	Pennsylvania.....	101,220	125,740
East North Central.....	891,328	800,480	Massachusetts.....	54,372	41,037	East North Central.....	88,741	85,913
Ohio.....	192,856	176,362	Connecticut.....	21,080	14,544	Ohio.....	73,997	72,245
Indiana.....	66,131	53,792	Middle Atlantic.....	57,729	37,232	All other divisions.....	11,301	( <sup>2</sup> )
Illinois.....	102,270	101,303	New York.....	18,030	8,847	POWER-DRIVEN HAND TOOLS, INCLUDING PARTS AND ATTACHMENTS (35482)		
Michigan.....	497,591	437,333	New Jersey.....	7,426	4,325	United States, total...	319,881	210,628
Wisconsin.....	32,480	31,690	Pennsylvania.....	32,273	24,060	New England.....	19,869	13,484
West North Central.....	30,063	23,079	East North Central.....	283,277	178,083	Middle Atlantic.....	74,068	54,879
Minnesota.....	7,492	6,648	Ohio.....	62,315	39,995	East North Central.....	140,551	( <sup>2</sup> )
Iowa.....	6,078	4,372	Indiana.....	2,889	1,358	Ohio.....	27,362	17,877
Missouri.....	14,963	9,610	Illinois.....	52,971	35,708	Illinois.....	78,018	59,777
Kansas.....	1,084	( <sup>2</sup> )	Michigan.....	160,584	98,605	Michigan.....	20,319	15,260
South Atlantic.....	13,486	17,368	Wisconsin.....	4,518	2,417	Wisconsin.....	14,214	9,491
Maryland.....	1,978	7,480	West North Central.....	3,887	2,471	West North Central.....	14,435	( <sup>2</sup> )
Virginia.....	1,048	( <sup>2</sup> )	South.....	11,136	( <sup>2</sup> )	South.....	64,306	( <sup>2</sup> )
Georgia.....	3,196	2,767	Kentucky.....	3,408	( <sup>2</sup> )	Pacific.....	6,652	( <sup>2</sup> )
Florida.....	5,412	4,294	West.....	7,081	( <sup>2</sup> )	ACETYLENE WELDING AND CUTTING APPARATUS (35483)		
East South Central.....	7,896	7,128	PRECISION MEASURING TOOLS (35452)			United States, total...		54,648
Kentucky.....	2,388	( <sup>2</sup> )	United States, total....	87,998	60,871	Northeast.....		27,773
Tennessee.....	3,707	4,017	New England.....	38,733	29,996	East North Central.....		8,962
Alabama.....	1,393	1,773	Massachusetts.....	16,071	13,119	Ohio.....		4,268
West South Central.....	6,567	6,623	Connecticut.....	7,767	7,487	West North Central.....		5,412
Arkansas.....	1,140	( <sup>2</sup> )	Middle Atlantic.....	6,420	4,751	South.....		1,556
Texas.....	4,837	5,135	New York.....	5,821	4,453	Pacific.....		10,945
Mountain.....	2,429	4,595	North Central.....	40,163	23,422	California.....		10,945
Colorado.....	1,026	( <sup>2</sup> )	Ohio.....	14,578	( <sup>2</sup> )			
Pacific.....	54,570	54,018	Illinois.....	5,531	2,660			
California.....	53,705	52,711	Michigan.....	16,283	8,267			
INDUSTRIAL MOLDS (35442)			Pacific.....	1,633	1,985			
United States, total....	220,561	163,046	All other divisions.....	1,049	( <sup>2</sup> )			
New England.....	23,053	17,207						
Massachusetts.....	15,066	11,503						
Connecticut.....	6,961	4,416						

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million reported.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 35411, Massachusetts, Ohio, and Wisconsin; 35412, Massachusetts, Rhode Island, Indiana, Illinois, Kentucky, and California; 35414, Vermont, Rhode Island, South Dakota, Maryland, and Texas; 35415, Vermont, Rhode Island, Indiana, and Wisconsin; 35416, Massachusetts, Rhode Island, New York, and Ohio; 35418, New Hampshire, Massachusetts, New Jersey, Pennsylvania, and Minnesota; 35419, Vermont, Rhode Island, Pennsylvania, and Minnesota; 35421, Massachusetts and North Carolina; 35422, Minnesota, Maryland, Texas, and California; 35423, Massachusetts, New Jersey, Pennsylvania, and California; 35424, Maine, Maryland, Washington, and California; 35442, Missouri and Washington; 35451, New Hampshire, Rhode Island, Minnesota, Missouri, Tennessee, Arkansas, and California; 35452, Vermont, Rhode Island, Minnesota, and California; 35453, Rhode Island, Missouri, Texas, and California; 35481, Massachusetts, Connecticut, New York, Indiana, Michigan, Delaware, and West Virginia; 35482, Massachusetts, Connecticut, New York, Pennsylvania, Iowa, Missouri, Delaware, Maryland, South Carolina, Texas, and California; 35483, New York, New Jersey, Pennsylvania, Illinois, Michigan, Minnesota, and Missouri.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.



TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958		1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3541.—METAL-CUTTING MACHINE TOOLS				INDUSTRY 3542.—METAL-FORGING MACHINE TOOLS			
	Materials, parts, containers, and supplies, total.....		(X)	334,002	(X)	192,497	(X)	144,149	(X)	111,608
	Mill shapes and forms (except castings):									
	Carbon steel:									
331011	Bars and bar shapes.....	Short tons..	37,391	10,485	16,937	4,551	23,264	6,159	15,159	3,602
331012	Sheet and strip.....	...do.....	7,734	1,388	3,655	645	3,632	1,124	2,655	564
331013	Plates.....	...do.....	20,023	3,461	9,535	1,575	86,506	13,008	55,290	7,903
331015	Structural shapes.....	...do.....	3,612	1,087	2,165	624	2,027	403	1,885	387
331017	Wire and wire products.....	...do.....	(NA)	87	1,720	654	(NA)	71	2,291	810
331019	All other carbon steel mill shapes and forms.....	...do.....	4,827	1,690						
	Alloy steel (except stainless):									
331021	Bars and bar shapes.....	...do.....	17,591	6,906	11,370	4,514	3,978	2,836	3,289	1,839
331029	All other alloy steel mill shapes and forms.....	...do.....	3,472	2,199	1,488	774	1,787	926	291	183
331031	Stainless steel.....	...do.....	454	756	403	644	585	699	159	246
	Copper and copper-base alloy:									
335728	Bar wire (for electrical conduction).....	1,000 lbs...	87	95	(NA)	(NA)	252	172	(NA)	(NA)
335790	Insulated wire and cable...	1,000 lbs. copper content....	1,024	812	403	402				
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs...	427	373	576	420	210	214	151	105
335123	Plate, sheet, and strip, including military cups and discs.....	...do.....	392	310						
335127	Pipe and tube.....	...do.....	389	276			69	54		
	Aluminum and aluminum base alloy:									
335202	Sheet, plate and foil.....	...do.....	1,093	840	580	348	393	265	373	220
335205	Extruded shapes, including extruded rod, bar, tube, etc.....	...do.....	182	147						
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder welded tubing, etc.).....	...do.....	120	98			(NA)	88		
331051	Pig iron, excluding silvery iron.....	Short tons..	16,921	1,093	8,284	554	3,969	275	5,801	392
999811	Iron and steel scrap (excluding home scrap).....	...do.....	21,633	1,006	7,967	348	18,770	706	10,513	469
	Castings (rough and semi-finished): <sup>1</sup>									
332011	Iron (gray and malleable)....	...do.....	98,480	39,760	64,015	23,620	23,470	9,652	30,032	9,984
332300	Steel.....	...do.....	6,567	4,493	1,748	1,323	9,692	4,916	15,235	8,132
336100	Aluminum and aluminum-base alloy.....	1,000 lbs...	2,478	2,552	1,650	1,333	865	601	273	332
336200	Copper and copper-base alloy.	...do.....	2,068	1,885	1,558	1,278	1,730	1,639	1,589	1,221
339100	Iron and steel forgings <sup>1</sup> .....	Short tons..	4,624	3,632	4,723	3,245	7,842	4,805	5,156	3,172
	Electric motors and generators <sup>1</sup>									
	Fractional horsepower electric motors (under 1 hp.):									
362110	Timing motors, synchronous and subsynchronous.....	Number.....	12,226	1,189	19,402	905	(NA)	214	(NA)	226
362115	Other fractional horsepower electric motors.....	...do.....	93,190	3,537	34,183	1,404	7,277	354	14,117	762
362120	Integral horsepower motors and generators (1 hp. and over).....	...do.....	67,167	11,271	40,240	8,106	17,416	5,767	12,031	4,688
	Bearings:									
356218	Ball.....	.....	(X)	6,528	(X)	6,260	(X)	609	(X)	1,588
356228	Roller.....	.....	(X)	3,880						
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	187,522	(X)	112,700	(X)	71,314	(X)	58,204
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....	.....	(X)	34,644	(X)	16,122	(X)	15,560	(X)	6,523

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958		1963		1958			
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)		
			INDUSTRY 3544.—SPECIAL DIES AND TOOLS				INDUSTRY 3545.—MACHINE TOOL ACCESSORIES					
	Materials, parts, containers, and supplies, total.....		(X)	281,516	(X)	217,315	(X)	188,599	(X)	114,880		
	Mill shapes and forms (except castings):											
	Carbon steel:											
331011	Bar and bar shapes.....	Short tons..	64,308	21,917	32,137	12,523	32,907	8,962	18,738	5,467		
331012	Sheet and strip.....	...do.....	45,049	7,934	21,286	4,089	1,793	604	991	367		
331013	Plates.....	...do.....	66,201	14,346	41,677	8,904	2,105	725	2,697	653		
331015	Structural shapes.....	...do.....	6,053	1,657	3,324	968	881	282	(4)	(4)		
331017	Wire and wire products.....	...do.....	449	326	314	193	469	181	205	118		
331019	All other carbon steel mill shapes and forms.....	...do.....	8,658	3,498	4,012	1,919	3,025	1,304	42,311	4710		
	Alloy steel (except stainless):											
331021	Bar and bar shapes.....	...do.....	15,960	19,417	11,561	11,139	14,955	28,732	10,744	19,452		
331029	All other alloy steel mill shapes and forms.....	...do.....	7,791	5,296	4,077	2,220	5,246	7,963	1,941	3,551		
331031	Stainless steel.....	...do.....	1,765	2,347	868	1,408	123	226	170	235		
	Copper and copper-base alloy:											
335728	Bar wire (for electrical conduction).....	1,000 lbs...	(NA)	155	{	155	154	{	49	54	130	79
335790	Insulated wire and cable...	1,000 lbs. copper content....										
335102	Rod, bar, and mechanical wire.....	1,000 lbs...	1,002	1,087	{	2,041	1,191	290	274	210	255	
335123	Plate, sheet, and strip, including cups and discs..	...do.....	702	743								
335127	Pipe and tube.....	...do.....	195	175								
	Aluminum and aluminum base alloy:											
335202	Sheet, plate, and foil.....	...do.....	2,277	1,655	2,124	1,404	286	94	161	165		
335205	Extruded shapes, including rod, bar, pipe, tube, etc.	...do.....	1,509	1,029	{	486	310	1,447	1,128	109	93	
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, tubing, etc.).....	...do.....	1,029	493								
331051	Pig iron, excluding silvery iron.....	Short tons..	1,310	88	39,432	2,495	(NA)	(NA)	2,783	214		
999811	Iron and steel scrap (excluding home scrap).....	...do.....	16,292	512	(D)	(D)	(NA)	(NA)	628	27		
	Castings (rough and semi-finished): <sup>1</sup>											
332011	Iron (gray and malleable)....	...do.....	40,303	12,883	32,642	12,487	12,887	5,632	5,956	2,426		
332300	Steel.....	...do.....	7,680	4,789	4,086	2,441	573	600	503	375		
336100	Aluminum and aluminum-base alloy.....	1,000 lbs...	3,207	1,910	1,044	714	792	764	1,239	1,204		
336200	Copper and copper-base alloy.	...do.....	770	696	743	583	142	121	135	141		
339100	Iron and steel forgings <sup>1</sup> .....	Short tons..	1,085	1,220	1,501	1,557	1,268	1,277	1,076	1,137		
	Electric motors and generators <sup>1</sup> :											
	Fractional horsepower electric motors (under 1 hp.):											
362110	Timing motors, synchronous and subsynchronous.....	Number.....	3,320	108	{	(NA)	94	{	(D)	(D)	5,877	165
362115	Other fractional horsepower electric motors.....	...do.....	2,312	111								
362120	Integral horsepower motors and generators (1 hp. and over).....	...do.....	1,548	457	881	172	4,430	1,096	2,787	355		
	Bearings:											
356218	Ball.....	...do.....	(X)	448	{	(X)	(D)	{	(X)	836	(X)	560
356228	Roller.....	...do.....	(X)	637								
970099	All other materials and components, parts, containers, and supplies consumer.....	...do.....	(X)	85,925	(X)	77,372	(X)	98,328	(X)	65,556		
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....	...do.....	(X)	89,657	(X)	72,978	(X)	28,816	(X)	11,349		

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3548.—METALWORKING MACHINERY, N.E.C.			
	Materials, part, containers, and supplies, total.....	.....	(X)	279,508	(X)	198,035
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	27,176	5,670	16,714	3,950
331012	Sheet and strip.....	..do.....	20,207	3,549	8,667	1,748
331013	Plates.....	..do.....	54,296	8,475	40,412	5,579
331015	Structural shapes.....	..do.....	11,530	2,051	10,190	1,694
331017	Wire and wire products.....	..do.....	2,328	901	496	381
331019	All other carbon steel mill shapes and forms.....	..do.....	6,540	1,224	14,701	2,111
	Alloy steel (except stainless)					
331021	Bars and bar shapes.....	..do.....	12,266	4,554	6,677	2,981
331029	All other alloy steel mill shapes and forms.....	..do.....	5,614	2,236	1,525	633
331031	Stainless steel.....	..do.....	229	614	113	159
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	705	591	1,258	715
335790	Insulated wire and cable.....	1,000 lbs. copper content.	2,183	2,900	1,858	1,624
335102	Rod, bar, and mechanical wire, including extruded and or drawn shapes.....	1,000 lbs.....	4,442	2,702	4,565	2,663
335123	Plate, sheet, and strip, including military cups and discs.....	..do.....	107	83		
335127	Pipe and tube.....	..do.....	602	403		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	..do.....	726	601	360	314
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	..do.....	108	71	527	387
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	..do.....	2,172	1,109		
331051	Pig iron, excluding silvery iron.....	Short tons.....	14,611	853	15,338	959
999811	Iron and steel scrap (excluding home scrap).....	..do.....	36,507	1,542	52,171	2,147
	Castings (rough and semifinished): <sup>1</sup>					
332011	Iron (gray and malleable).....	..do.....	26,259	9,053	11,520	4,479
332300	Steel.....	..do.....	20,639	12,013	17,574	8,918
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	12,388	11,051	9,536	8,142
336200	Copper and copper-base alloy.....	..do.....	3,001	1,987	2,723	2,307
339100	Iron and steel forgings <sup>1</sup> .....	Short tons.....	6,076	4,474	6,572	4,027
	Electric motors and generators: <sup>1</sup>					
	Fractional horsepower electric motors (under 1 hp.):					
362110	Timing motors, synchronous and subsynchronous.....	Number.....	188,726	1,968	948,432	6,160
362115	Other fractional horsepower electric motors.....	..do.....	363,636	4,813		
362120	Integral horsepower motors and generators (1 hp. and over).....	..do.....	7,320	3,682	3,585	1,257
	Bearings:					
356218	Ball.....	.....	(X)	6,136	(X)	5,576
356228	Roller.....	.....	(X)	4,117		
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	151,998	(X)	127,070
976000	Materials, parts, containers and supplies, n.s.k. <sup>2</sup> .....	.....	(X)	28,087	(X)	2,054

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Listed below are quantities of the specified materials produced and consumed into products at the same establishment.

Code	Material	Unit of measure	Industry				
			3541		3542	3544	3545
			1963	1958	1958	1963	1963
	Castings (rough and semifinished):						
332011	Iron (gray and malleable).....	Short tons.....	33,839	14,841	10,541	(NA)	(D)
332300	Steel.....	..do.....	(D)	(NA)	(NA)	(NA)	(D)
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	(NA)	(NA)	(NA)	(D)	(D)
336200	Copper and copper-base alloy.....	..do.....	(NA)	(NA)	(NA)	(NA)	(D)
339100	Iron and steel forgings.....	Short tons.....	(NA)	(NA)	(NA)	(D)	(D)
	Electric motors and generators:						
	Fractional horsepower electric motors (under 1 hp.):						
362110	Timing motors, synchronous and subsynchronous.....	Number.....	-	(NA)	(NA)	(D)	-
362115	Fractional horsepower electric motors (excluding timing motors)	..do.....	-	(NA)	(NA)	(D)	2,007,167
362120	Integral horsepower motors and generators (1 horsepower and over)	.....	-	(NA)	(NA)	(D)	(D)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>2</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual material consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "short forms".

<sup>3</sup>No data are available for 1963 on the quantities of castings, forgings or electric motors and generators produced and consumed in the same establishment.

<sup>4</sup>For 1958, carbon steel structural shapes are included with "All other carbon steel mill shapes and forms".

TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

Item	Metal-cutting machine tools (SIC 3541)	Metal-forming machine tools (SIC 3542)	Special dies and tools (SIC 3544)	Machine tool accessories (SIC 3545)	Metalworking machinery, n.e.c. (SIC 3548)
Total cost of purchased fuels and electric energy.....\$1,000..	9,706	4,046	15,412	9,005	6,571
Total cost of purchased fuels.....do....	3,680	1,612	5,734	2,810	3,204
Bituminous coal, lignite, and anthracite:					
Quantity.....1,000 short tons..	71	(S)	(S)	11	39
Cost.....\$1,000..	595	(S)	(S)	128	317
Coke and breeze:					
Quantity.....1,000 short tons..	5	(S)	(S)	-	(S)
Cost.....\$1,000..	164	(S)	(S)	-	(S)
Fuel oil (distillate and residual):					
Quantity.....1,000 barrels of 42 gallons..	334	196	(S)	333	(S)
Cost.....\$1,000..	1,190	835	(S)	1,180	(S)
Gas (natural, manufactured, still, blast furnace, and coke oven):					
Quantity.....million cu.ft..	1,378	(S)	(S)	1,492	3,865
Cost.....\$1,000..	1,054	(S)	(S)	1,057	2,186
Other fuels.....do....	677	225	(S)	445	(S)
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	400	164	499	393	251
Cost.....\$1,000..	6,026	2,434	9,678	6,195	3,367
Generated less sold.....million kw.-hrs..	8	-	-	(S)	(S)
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	351	177	466	293	203
Prime movers, total.....do....	15	5	35	11	13
Driving generators.....do....	10	1	20	7	9
Not driving generators.....do....	5	4	15	4	4
Electric motors, total.....do....	340	172	431	285	193
Driven by purchased energy.....do....	337	172	431	282	190
Driven by energy generated at establishment.....do....	4	-	-	3	4
Aggregate horsepower per 100 production workers.....	894	961	554	821	771

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3541-	METAL-CUTTING MACHINE TOOLS										
	Entire industry.....	801	61,058	438,222	41,008	86,486	272,243	699,341	381,566	1,060,818	28,837
	Establishments with—										
	90% or more specialization..	549	27,315	196,955	18,686	39,287	127,526	312,584	182,338	491,678	14,961
	75-89% specialization.....	65	10,960	77,748	6,123	12,712	37,976	108,785	62,639	165,321	3,157
35411	Boring machines (primary product class of estab.).....	29	5,069	36,896	3,493	7,403	24,071	54,127	33,184	87,756	3,367
	Establishments with—										
	90% or more specialization....	8	132	1,000	109	230	817	1,264	864	2,179	27
35412	Drilling machines (primary product class of estab.).....	35	2,656	17,919	1,774	3,775	10,992	31,761	18,677	49,673	1,236
	Establishments with—										
	90% or more specialization....	7	396	2,620	281	624	1,651	4,467	2,547	6,928	170
	75-89% specialization.....	9	956	6,540	566	1,192	3,416	11,539	8,281	19,550	482
35413	Gear cutting and finishing machines (primary product class of estab.).....	10	4,999	35,013	3,605	7,571	22,903	52,002	19,667	70,050	3,247
35414	Grinding and polishing machines (excluding gear tooth grinding, honing, lapping, polishing and buffing machines) (primary product class of estab.).....	77	8,361	58,450	5,709	12,073	35,575	92,896	44,095	135,486	3,114
	Establishments with—										
	90% or more specialization....	29	794	5,245	656	1,284	4,031	8,068	6,180	14,504	221
	75-89% specialization.....	15	1,899	12,803	1,362	2,965	8,399	22,918	10,316	32,996	1,327
35415	Lathes (primary product class of estab.).....	56	16,139	115,459	10,851	22,300	74,411	189,541	94,697	279,655	7,578
	Establishments with—										
	90% or more specialization....	10	484	3,133	366	770	2,053	4,468	2,370	6,916	122
	75-89% specialization.....	9	3,621	26,236	2,442	5,008	15,864	45,938	25,039	70,383	2,327
35416	Milling machines (primary product class of estab.).....	37	9,277	68,067	5,294	10,781	35,663	109,350	62,883	167,946	4,128
	Establishments with—										
	90% or more specialization....	7	227	1,679	176	368	1,158	3,035	1,799	4,742	48
	75-89% specialization.....	5	2,272	17,677	1,517	3,100	10,760	28,174	15,464	42,728	(D)
35418	Other machine tools (including those designed primarily for home workshops, laboratories, etc.) (primary product class of estab.)	131	9,360	69,856	6,254	13,853	42,076	105,489	66,942	166,288	3,940
	Establishments with—										
	90% or more specialization....	72	1,956	15,693	1,524	3,466	11,558	23,511	14,342	37,769	1,109
	75-89% specialization.....	13	920	6,433	642	1,522	4,274	13,511	7,962	20,602	443
35419	Parts for metal-cutting type machine tools, sold separately, and rebuilt machine tools (primary product class of estab.)....	58	3,125	24,415	2,480	5,603	18,024	43,475	29,470	71,022	1,371
	Establishments with—										
	90% or more specialization....	28	631	4,034	509	1,067	2,830	6,851	6,772	13,661	442
	75-89% specialization.....	5	138	938	82	171	505	1,760	1,052	2,812	108
3542-	METAL-FORMING MACHINE TOOLS										
	Entire industry.....	366	22,078	161,669	15,782	34,633	107,381	281,287	165,376	441,419	10,792
	Establishments with—										
	90% or more specialization..	247	11,470	84,160	8,488	18,661	57,854	159,502	97,865	253,824	6,897
	75-89% specialization.....	35	4,836	36,508	3,479	7,858	25,093	57,197	34,974	91,373	1,635
35421	Punching, shearing, bending, and forming machines (primary product class of estab.).....	66	4,544	32,424	3,072	6,656	19,475	56,476	32,862	89,394	3,006
	Establishments with—										
	90% or more specialization....	27	1,106	7,822	837	1,916	5,624	13,633	11,990	25,815	1,172
	75-89% specialization.....	10	1,046	7,552	785	1,733	4,998	16,786	9,159	25,943	766
35422	Presses, including forging presses (primary product class of estab.)	55	8,336	62,712	6,008	13,598	43,482	102,157	68,472	169,676	3,883
	Establishments with—										
	90% or more specialization....	25	494	3,145	409	836	2,281	5,937	3,750	9,483	105
	75-89% specialization.....	10	3,364	26,442	2,569	5,729	19,309	40,426	31,148	69,742	1,526

See footnotes at end of table.

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
35423	Other metal-forming machine tools, including forging machines (primary product class of estab.)	32	3,612	25,872	2,599	5,468	16,175	51,798	28,295	77,332	1,690
	Establishments with—										
	90% or more specialization....	13	834	6,171	552	1,176	3,713	12,849	6,681	19,003	554
	75-89% specialization.....	6	243	1,690	181	411	1,131	3,205	3,596	6,677	101
35424	Parts for metal-forming machine tools and rebuilt metal-forming machinery (primary product class of estab.).....	68	3,590	27,087	2,701	6,003	19,402	46,341	23,392	69,701	1,247
	Establishments with—										
	90% or more specialization....	34	1,142	7,774	882	1,908	5,600	13,176	7,189	20,393	638
3544-	SPECIAL DIES AND TOOLS										
	Entire industry.....	5,896	90,860	682,739	76,002	169,313	543,033	1,029,338	373,320	1,388,794	53,343
	Establishments with—										
	90% or more specialization..	5,053	69,761	525,288	58,497	130,496	420,439	794,199	283,609	1,068,179	42,178
	75-89% specialization.....	205	6,123	48,955	4,963	11,251	37,583	70,296	28,742	96,941	3,095
35441	Special dies and tools, die sets, jigs, and fixtures (primary product class of estab.).....	3,336	62,689	495,003	52,229	117,795	390,707	658,006	268,928	915,090	35,774
	Establishments with—										
	90% or more specialization....	2,639	45,410	363,466	37,949	85,758	289,233	539,637	191,987	723,975	25,993
	75-89% specialization.....	265	6,721	53,101	5,528	12,454	41,109	75,275	30,373	103,597	3,763
35442	Industrial molds (primary product class of estab.).....	736	13,902	99,901	11,778	26,131	79,982	149,322	56,469	204,438	8,325
	Establishments with—										
	90% or more specialization....	584	10,643	77,485	9,069	20,115	62,060	114,691	42,363	156,187	6,274
	75-89% specialization.....	54	759	4,966	622	1,334	3,871	7,645	2,387	9,977	400
3545-	MACHINE TOOL ACCESSORIES										
	Entire industry.....	1,038	46,994	312,799	34,560	72,037	208,086	559,258	234,501	787,338	22,784
	Establishments with—										
	90% or more specialization..	840	27,057	173,852	20,927	43,275	122,371	315,373	123,908	438,541	12,782
	75-89% specialization.....	59	5,060	34,642	3,576	7,609	21,876	64,581	28,008	90,649	2,785
35451	Small cutting tools for machine tools and metalworking machinery (primary product class of estab.)	486	32,326	217,487	23,255	49,433	146,199	392,349	167,099	556,179	15,729
	Establishments with—										
	90% or more specialization....	374	18,187	117,488	14,303	29,398	84,243	213,296	83,558	298,532	8,521
	75-89% specialization.....	45	3,082	20,080	2,262	4,781	13,904	35,471	15,324	50,436	1,610
35452	Precision measuring tools (primary product class of estab.).....	115	5,421	35,449	3,990	8,532	23,221	55,380	19,853	74,247	2,473
	Establishments with—										
	90% or more specialization....	82	1,786	11,226	1,429	3,046	8,092	16,597	7,064	23,575	691
	75-89% specialization.....	11	490	3,256	373	768	2,148	5,474	1,469	6,848	304
35453	Other attachments and accessories for machine tools and metalworking machinery (primary product class of estab.).....	178	7,241	48,271	5,714	10,739	29,907	89,733	39,374	126,849	3,579
	Establishments with—										
	90% or more specialization....	125	3,219	21,474	2,313	4,861	13,491	42,229	16,973	57,232	1,683
	75-89% specialization.....	18	1,674	11,214	1,165	2,400	6,599	21,385	11,607	32,665	1,395
3548-	METALWORKING MACHINERY, N.E.C.										
	Entire industry.....	435	38,012	246,242	28,257	57,094	161,837	468,435	328,357	796,327	20,957
	Establishments with—										
	90% or more specialization..	318	18,062	117,962	13,115	26,349	73,631	221,621	151,204	376,757	10,186
	75-89% specialization.....	42	12,806	78,561	9,689	19,483	54,869	166,030	106,786	273,090	5,089
35481	Rolling-mill machinery and equipment (primary product class of estab.).....	45	12,532	93,244	9,836	20,004	66,468	143,302	134,135	277,156	10,876
	Establishments with—										
	90% or more specialization....	24	4,051	30,038	3,350	6,974	23,233	44,703	44,225	89,857	2,965
	75-89% specialization.....	5	4,320	31,762	3,269	6,423	21,662	49,750	44,394	97,330	2,488
35482	Power-driven hand tools, including parts and attachments (primary product class of estab.).....	85	17,412	100,751	12,826	25,760	64,651	232,375	133,883	365,367	6,067
	Establishments with—										
	90% or more specialization....	49	7,143	42,426	5,125	10,057	24,892	97,888	53,965	152,002	2,563
	75-89% specialization.....	22	8,521	47,894	6,327	12,912	32,746	115,281	64,610	179,152	2,875

See footnotes at end of table.



TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
35483	Acetylene welding and cutting apparatus (primary product class of estab.).....	30	2,589	17,683	1,765	3,480	9,955	31,141	17,577	48,954	1,295
	Establishments with— 90% or more specialization....	21	2,284	15,902	1,554	3,069	8,841	27,447	15,700	43,384	1,202
35484	Automotive maintenance equipment (primary product class of estab.)	35	1,993	11,896	1,245	2,556	6,349	24,250	18,580	42,707	975
	Establishments with— 90% or more specialization....	25	1,251	7,500	774	1,527	3,687	15,691	12,730	28,933	533
35485	Metalworking machinery, exc. machine tools, n.e.c. (primary product class of estab.).....	51	1,930	13,798	1,343	2,806	8,297	20,699	13,739	35,152	762
	Establishments with— 90% or more specialization....	35	1,028	7,343	700	1,432	4,268	11,476	7,412	19,803	385
	75-89% specialization.....	6	345	2,423	264	549	1,672	4,373	1,962	6,284	233

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3541.—METAL-CUTTING MACHINE TOOLS							
Ferrous foundry.....	10	-	-	10	987	-	-	987
Nonferrous foundry (except die casting).....	3	1	-	2	(D)	(D)	-	(D)
Nonferrous die casting.....	3	2	1	-	10	(D)	(D)	-
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	4	4	-	-	7	7	-	-
Electroplating and other plating.....	14	10	4	-	63	17	46	-
Heat treating of metals.....	68	41	20	7	417	72	154	191
Automatic screw machine department.....	51	29	17	5	340	56	154	130
Machine shop.....	316	74	103	139	22,515	114	1,067	21,334
Tool and die shop.....	101	44	33	24	1,641	81	333	1,227
Foundry pattern shop.....	36	19	12	5	286	39	122	125
Plate or structural fabrication.....	50	31	15	4	429	67	148	214
Stamping, blanking and forming of metals.....	38	28	8	2	163	39	(D)	(D)
Painting, lacquering and enameling on metals.....	149	101	44	4	663	148	410	105
	INDUSTRY 3542.—METAL-FORMING MACHINE TOOLS							
Ferrous foundry.....	6	-	1	5	357	-	(D)	(D)
Nonferrous foundry (except die casting).....	2	1	-	1	(D)	(D)	-	(D)
Nonferrous die casting.....	1	-	1	-	(D)	-	(D)	-
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	7	5	2	-	27	(D)	(D)	-
Electroplating and other plating.....	3	3	-	-	6	6	-	-
Heat treating of metals.....	30	23	6	1	196	38	(D)	(D)
Automatic screw machine department.....	28	17	9	2	217	26	(D)	(D)
Machine shop.....	163	32	58	73	7,779	49	641	7,089
Tool and die shop.....	58	26	22	10	578	42	211	325
Foundry pattern shop.....	18	13	5	-	84	28	56	-
Plate or structural fabrication.....	40	20	11	9	825	38	101	686
Stamping, blanking and forming of metals.....	38	26	11	1	170	31	(D)	(D)
Painting, lacquering and enameling on metals.....	56	50	6	-	125	67	58	-
	INDUSTRY 3544.—SPECIAL DIES AND TOOLS							
Ferrous foundry.....	3	2	1	-	10	(D)	(D)	-
Nonferrous foundry (except die casting).....	26	23	2	1	85	43	(D)	(D)
Nonferrous die casting.....	38	21	12	5	361	43	139	179
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	13	8	4	1	146	11	(D)	(D)
Electroplating and other plating.....	23	19	3	1	81	27	(D)	(D)
Heat treating of metals.....	163	150	10	3	370	164	76	130
Automatic screw machine department.....	64	57	7	-	174	103	71	-
Machine shop.....	1,013	359	492	162	13,346	559	4,772	8,015
Tool and die shop.....	1,799	529	857	413	31,244	834	8,632	21,778
Foundry pattern shop.....	69	40	18	11	831	75	175	581
Plate or structural fabrication.....	103	78	20	5	460	101	163	196
Stamping, blanking and forming of metals.....	458	351	91	16	1,999	513	764	722
Painting, lacquering and enameling on metals.....	76	72	3	1	132	75	(D)	(D)
	INDUSTRY 3545.—MACHINE TOOL ACCESSORIES							
Ferrous foundry.....	4	2	-	2	(D)	(D)	-	(D)
Nonferrous foundry (except die casting).....	4	4	-	-	9	9	-	-
Nonferrous die casting.....	4	3	1	-	15	(D)	(D)	-
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	17	10	5	2	109	16	(D)	(D)
Electroplating and other plating.....	31	25	5	1	114	40	(D)	(D)
Heat treating of metals.....	144	92	39	13	917	154	325	438
Automatic screw machine department.....	74	57	12	5	332	113	104	115
Machine shop.....	304	78	105	121	11,505	112	1,131	10,262
Tool and die shop.....	146	50	62	34	1,973	62	610	1,301
Foundry pattern shop.....	7	5	1	1	38	(D)	(D)	(D)
Plate or structural fabrication.....	13	8	5	-	52	14	38	-
Stamping, blanking and forming of metals.....	49	33	11	5	484	51	107	326
Painting, lacquering and enameling on metals.....	53	46	5	2	182	59	(D)	(D)

See footnotes at end of table.



TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963—Continued

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3548.—METALWORKING MACHINERY, N.E.C.							
Ferrous foundry.....	5	-	1	4	958	-	(D)	(D)
Nonferrous foundry (except die casting).....	6	5	-	1	56	(D)	-	(D)
Nonferrous die casting.....	8	4	1	3	112	(D)	(D)	100
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	12	7	3	2	109	14	(D)	(D)
Electroplating and other plating.....	10	7	3	-	34	12	22	-
Heat treating of metals.....	43	30	9	4	350	49	81	220
Automatic screw machine department.....	45	19	19	7	561	40	200	321
Machine shop.....	167	41	45	81	10,549	84	452	10,013
Tool and die shop.....	69	34	24	11	736	64	225	447
Foundry pattern shop.....	11	7	3	1	91	18	(D)	(D)
Plate or structural fabrication.....	46	21	10	15	1,281	46	95	1,140
Stamping, blanking and forming of metals.....	42	34	2	6	344	(D)	(D)	278
Painting, lacquering and enameling on metals.....	84	77	5	2	204	114	(D)	(D)

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

Item	INDUSTRY				
	3541	3542	3544	3545	3548
Total number of establishments in the industry.....	801	366	5,896	1,038	435
Number of establishments which reported one or more of the specified operations.....	390	195	2,603	435	212
Percent of industry production workers in these establishments.....	90-95	85-90	75-80	80-85	85-90
Number of establishments which reported "none" of the operations apply.....	26	6	191	79	18
Percent of industry production workers in these establishments.....	0-5	0-5	0-5	5-10	0-5
Percent of industry production workers in establishments which completed the metalworking operations inquiry.....	95-100	85-90	75-80	85-90	90-95

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.

## SPECIAL INDUSTRY MACHINERY, EXCEPT METALWORKING MACHINERY

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

3551--Food Products Machinery  
3552--Textile Machinery  
3553--Woodworking Machinery  
3554--Paper Industries Machinery  
3555--Printing Trades Machinery and Equipment  
3559--Special Industry Machinery, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3551--FOOD PRODUCTS MACHINERY

This industry comprises establishments primarily engaged in manufacturing machinery for use by the food products and beverage manufacturing industries in the preparation, canning, or packaging of food products; and parts and attachments for such machinery. Establishments primarily engaged in manufacturing industrial refrigeration machinery are classified in Group 358. For a detailed list of products of industry 3551, refer to table 6A, product codes 3551111 to 3551381.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the food products machinery Industry in 1963 totaled \$641 million. This amount included shipments of food products machinery (primary products) valued at \$451 million, shipments of other products (secondary products) valued at \$72 million, and miscellaneous receipts (including significant sales of products bought and resold), at \$118 million.

This industry's shipments of food products machinery in 1963 represented 86 percent of its total product shipments. The industry specialization ratio in 1958 was 87 percent. Secondary products shipped by this industry in 1963 include Special Industry Machinery (\$20 million), and General Industrial Machinery, N.E.C. (\$11 million).



Shipments of food products machinery by this industry in 1963 represented 87 percent of all shipments of these products (\$517 million) by all industries. In 1958 the coverage ratio was 84 percent. Another industry shipping food products machinery was industry 3559, Special Industry Machinery, \$20 million.

#### 3552—TEXTILE MACHINERY

This industry comprises establishments primarily engaged in manufacturing machinery for the textile industries, and extra parts, attachments, and accessories. Establishments primarily engaged in manufacturing domestic or industrial sewing machines are classified in industry 3636. For a detailed list of products of industry 3552, refer to table 6A, product codes 3552113 to 3552298.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Textile Machinery Industry in 1963 totaled \$543 million. This amount included shipments of textile-industries machinery (primary products) valued at \$468 million, shipments of other products (secondary products) valued at \$38 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$37 million.

This industry's shipments of textile-industries machinery in 1963 represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 87 percent. Secondary products shipped by this industry in 1963 include all other gray iron castings \$4 million, metal stampings \$2 million, food products machinery \$3 million, printing trades machinery \$3 million and other special industry machinery \$5 million.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 55 percent of the total industry shipments are represented by plants specializing in textile machinery; and 40 percent in parts and attachments for textile machinery.

Shipments of textile-industries machinery by this industry in 1963 represented 94 percent of all shipments of these products (\$499 million) by all industries. In 1958 the coverage ratio was also 94 percent.

#### 3553—WOODWORKING MACHINERY

This industry comprises establishments primarily engaged in manufacturing machinery for sawmills, planing mills, cabinet and furniture makers, pattern makers, and veneer workers, establishments primarily engaged in manufacturing hand tools such as planes, axes, drawknives, and hand saws are classified in Group 342; and portable power driven hand tools in industry 3548. For a detailed list of products of industry 3553, refer to table 6A, product codes 3553112 to 3553298.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Woodworking Machinery Industry in 1963 totaled \$253 million. This amount included shipments of woodworking machinery (pri-

mary products), valued at \$179 million, shipments of other products (secondary products) valued at \$52 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$22 million.

This industry's shipments of woodworking machinery in 1963 represented 77 percent of its total product shipments. The industry specialization ratio in 1958 was 78 percent. Secondary products shipped by this industry in 1963 include farm machinery and equipment \$3 million, and grinding and polishing machines \$2 million.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 85 percent of the total industry shipments are represented by plants specializing in woodworking machines, except home workshops.

Shipments of woodworking machinery of this industry in 1963 represented 81 percent of all shipments of these products (\$221 million) by all industries. In 1958 the coverage ratio was 86 percent. Another industry shipping woodworking machinery (primary products) was industry 3541, Metal-Cutting Machine Tools, \$9 million.

The production index for the primary products of the industry increased to 111 in 1963 from the 1958 level of 99. The unit value index for 1963 was 119 compared to 108 in 1958. Both indexes were computed on a basis of 1954 - 100.

#### 3554--PAPER INDUSTRIES MACHINERY

This industry comprises establishments primarily engaged in manufacturing machinery for the paper-pulp, paper, and paper-product industries. Establishments primarily engaged in manufacturing printing trades machinery are classified in industry 3555. For a detailed list of products of industry 3554, refer to table 6A, product codes 3554011 to 3554081.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Paper Industries Machinery Industry in 1963 totaled \$404 million. This amount included shipments of paper industries machinery (primary products), valued at \$313 million, shipments of other products (secondary products) valued at \$42 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$49 million.

This industry's shipments of paper industries machinery in 1963 represented 88 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent. Secondary products shipped by this industry in 1963 includes special industry machinery n.e.c. (\$14 million), and all other gray iron castings (\$4 million).

Shipments of paper industries machinery of this industry in 1963 represented 90 percent of all shipments of these products (\$348 million) by all industries. In 1958 the coverage ratio was 91 percent. Another industry shipping paper industries machinery (primary products) was industry 3559, Special Industry Machines, N.E.C., \$11 million.

The production index for the primary products of the industry increased to 202 in 1963 from the 1958 level of 144. The unit value index for 1963 was 98 compared to 111 in 1958. Both indexes were computed on a basis of 1954 - 100.



### 3555—PRINTING TRADES MACHINERY AND EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing machinery and equipment used by the printing and bookbinding trades. Establishments primarily engaged in manufacturing textile printing machinery are classified in industry 3552. For a detailed list of products of industry 3555, refer to table 6A, product codes 3555111 to 3555298.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Printing Trades Machinery Industry in 1963 totaled \$448 million. This amount included shipments of printing trades machinery (primary products), valued at \$369 million, shipments of other products (secondary products) valued at \$18 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$61 million.

This industry's shipments of printing trades machinery in 1963 represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was also 95 percent. Secondary products shipped by this industry in 1963 include fabricated rubber products, n.e.c. (\$4 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 40 percent of the total industry shipments are represented by plants specializing in printing presses and 55 percent in other printing trades machinery.

Shipments of printing trades machinery by this industry in 1963 represented 92 percent of all shipments of these products (\$403 million) by all industries. In 1958 the coverage ratio was 91 percent.

The production index for the primary products of the industry decreased to 141 in 1963 from the 1958 level of 118. The unit value index for 1963 was 123 compared to 100 in 1958. Both indexes were computed on a basis of 1954 = 100.

### 3559—SPECIAL INDUSTRY MACHINERY, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing special industry machinery, n.e.c., such as smelting and refining equipment, cement making, clay working, cotton ginning, glass making, hat making, incandescent lamp making, leather working, paint making, rubber working, cigar and cigarette making, tobacco working, shoe making, and stone working machinery. For a detailed list of products of industry 3559, refer to table 6A, product codes 3559111 to 3559593.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Special Industry Machinery, N.E.C., Industry in 1963 totaled \$1,015 million. This amount included shipments of special industry machinery (primary products) valued at \$734 million, shipments of other products (secondary products) valued at \$150 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$130 million.

This industry's shipments of special industry machinery, n.e.c., in 1963 represented 83 percent of its total product shipments. The industry specialization ratio in 1958 was also 83 percent. Secondary products shipped by this industry in 1963 include general industrial machinery, n.e.c., (\$16 million), other industrial food products machinery (\$13 million) and paper industries machinery (\$11 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 15 percent of the total industry shipments are represented by plants specializing in plastics-working machinery; 15 percent in chemical manufacturing industry machinery; and 48 percent in other special industrial machinery.

Shipments of special industry machinery, n.e.c., by this industry in 1963 represented 74 percent of all shipments of these products (\$988 million) by all industries. In 1958 the coverage ratio was 77 percent. Other industries shipping special industry machinery (primary products) includes industry 3551, Food Products Machinery, \$14 million; and industry 3541, Machine Tools, Metal Cutting Type, \$16 million.

### SPECIAL INDUSTRY MACHINERY: SIC 355 Value Added by Manufacture by State: 1963





TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll (\$1,000)	Total  (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3551.—FOOD PRODUCTS MACHINERY														
1963.....	649	681	279	31,684	205,368	21,018	43,276	118,036	380,406	255,278	640,507	11,031	86	87
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	31,943	201,469	21,689	45,586	115,085	365,150	260,775	626,228	11,834	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	30,935	187,928	20,912	42,328	103,830	359,651	250,465	588,020	10,508	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	30,519	181,317	20,323	42,734	103,582	337,845	227,842	557,324	8,765	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	28,680	164,956	19,146	38,778	93,403	300,593	205,870	501,078	9,332	(NA)	(NA)
1958.....	657	672	240	27,715	152,515	18,195	36,304	86,824	268,639	185,816	456,171	7,801	87	84
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	32,160	167,192	22,722	45,964	100,964	256,506	169,893	429,709	(S)	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	34,130	172,950	24,329	51,153	106,332	279,485	173,492	434,014	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	31,276	148,417	22,282	46,212	93,316	242,572	140,080	380,905	(S)	(NA)	(NA)
1954.....	650	672	261	33,205	152,518	23,717	49,009	98,570	261,779	168,585	432,200	7,571	84	86
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	30,763	137,301	22,183	(NA)	90,723	231,047	129,154	360,201	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	30,704	132,965	22,220	(NA)	87,736	218,522	125,281	343,803	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	33,973	141,729	24,938	(NA)	95,948	215,895	143,792	359,687	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	29,796	109,231	21,373	(NA)	69,902	173,918	113,152	287,070	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	29,187	98,236	21,530	(NA)	64,793	155,750	96,383	252,133	(NA)	(NA)	(NA)
1947.....	605	623	(NA)	36,927	113,823	28,894	62,099	82,246	191,758	135,923	327,681	(NA)	89	82
1939 <sup>1 2</sup> .....	(NA)	406	(NA)	(NA)	(NA)	14,155	(NA)	18,931	58,587	33,082	91,669	(NA)	(NA)	(NA)
1937 <sup>1 3</sup> .....	(NA)	323	(NA)	(NA)	(NA)	18,475	(NA)	26,579	74,781	39,301	114,082	(NA)	(NA)	(NA)
INDUSTRY 3552.—TEXTILE MACHINERY														
1963.....	529	561	216	36,004	196,379	26,870	56,145	129,064	314,190	232,271	542,684	13,870	93	94
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	38,678	201,660	27,573	60,730	137,676	346,974	230,736	574,860	(15,334)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	37,685	192,819	26,550	58,730	129,806	317,773	214,699	530,350	(12,962)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	39,321	188,265	28,639	61,559	131,601	325,236	219,371	538,480	(11,370)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	35,766	173,594	27,627	58,194	120,553	271,336	186,898	445,493	6,813	(NA)	(NA)
1958.....	513	553	212	34,313	154,548	25,611	51,206	101,897	214,199	154,182	376,340	8,508	87	94
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	38,871	171,533	29,355	60,342	117,213	256,419	140,192	393,794	18,820	87	95
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	40,858	178,744	31,511	65,146	122,067	283,416	169,937	441,314	12,250	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	38,579	162,641	29,866	62,437	113,821	265,131	152,177	405,993	9,253	(NA)	(NA)
1954.....	517	535	210	36,595	145,253	28,093	55,733	98,668	216,606	127,167	347,145	8,528	89	93
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	38,295	154,807	20,017	(NA)	112,012	228,361	113,847	342,208	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	44,350	174,355	34,610	(NA)	122,996	273,923	133,066	406,989	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	56,539	214,834	45,561	(NA)	157,020	338,685	210,488	549,173	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	50,492	178,039	39,161	(NA)	128,675	299,119	156,665	455,784	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	49,847	166,330	39,481	(NA)	119,673	283,570	149,192	430,762	(NA)	(NA)	(NA)
1947.....	470	489	(NA)	53,583	158,446	45,393	98,607	126,142	256,436	146,949	403,385	(NA)	95	93
1939.....	(NA)	339	(NA)	(NA)	(NA)	22,580	(NA)	28,461	62,033	34,876	96,909	(NA)	(NA)	(NA)
1937 <sup>4</sup> .....	(NA)	356	(NA)	29,161	42,566	25,340	(NA)	33,139	71,883	35,546	107,429	(NA)	(NA)	(NA)
1935.....	(NA)	349	(NA)	22,682	29,731	19,072	(NA)	21,246	45,715	23,131	68,846	(NA)	(NA)	(NA)
1933.....	(NA)	314	(NA)	21,281	23,855	18,576	(NA)	18,737	41,945	18,378	60,323	(NA)	(NA)	(NA)
1931.....	(NA)	330	(NA)	(NA)	(NA)	18,808	(NA)	21,238	47,623	18,175	65,798	(NA)	(NA)	(NA)
1929.....	(NA)	376	(NA)	31,263	50,497	27,019	(NA)	37,836	85,883	36,556	122,439	(NA)	(NA)	(NA)
1927.....	(NA)	367	(NA)	30,220	47,398	26,154	(NA)	36,481	80,740	36,181	116,921	(NA)	(NA)	(NA)
1925.....	(NA)	379	(NA)	32,329	49,003	27,869	(NA)	37,464	82,616	39,037	121,653	(NA)	(NA)	(NA)
1923.....	(NA)	428	(NA)	40,041	57,086	35,672	(NA)	46,023	90,955	49,706	140,661	(NA)	(NA)	(NA)
1921.....	(NA)	421	(NA)	34,469	47,129	31,025	(NA)	38,831	84,031	44,904	128,935	(NA)	(NA)	(NA)
1919 <sup>5</sup> .....	(NA)	432	(NA)	35,772	44,627	31,823	(NA)	36,529	76,452	45,637	122,089	(NA)	(NA)	(NA)
INDUSTRY 3553.—WOODWORKING MACHINERY														
1963.....	245	249	91	12,057	72,928	8,725	17,662	45,877	146,998	110,061	252,762	4,720	77	81
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,307	69,562	9,099	16,888	42,175	141,060	111,528	247,431	(4,597)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,885	62,103	7,776	14,732	37,136	113,486	88,298	213,003	(7,608)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,511	62,396	8,160	15,948	38,282	128,997	92,630	224,357	(3,008)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,096	69,320	9,145	18,422	43,591	146,418	106,818	245,888	5,228	(NA)	(NA)
1958.....	251	257	96	12,219	63,414	8,036	15,945	36,904	112,936	88,530	214,376	6,924	78	86
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,376	55,638	8,161	16,601	37,468	108,615	74,191	176,578	(S)	82	78
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,869	62,983	9,616	19,283	43,025	133,493	84,096	200,727	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,254	57,257	9,796	18,994	39,228	118,375	71,365	183,739	(S)	(NA)	(NA)
1954.....	247	249	96	11,973	53,821	8,839	17,771	35,224	102,525	73,945	178,799	4,329	84	81
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,349	65,636	11,338	(NA)	44,397	107,075	85,108	192,183	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,124	56,666	10,226	(NA)	39,850	93,075	59,398	152,473	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	14,879	61,799	11,578	(NA)	43,816	102,956	80,218	183,174	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,148	48,313	10,065	(NA)	31,915	78,158	52,834	130,992	(NA)	(NA)	(NA)
1947.....	(NA)	294	(NA)	16,233	50,488	13,018	27,219	36,383	90,841	62,040	152,881	(NA)	78	77
1939 <sup>2</sup> .....	(NA)	148	(NA)	(NA)	(NA)	3,649	(NA)	4,683	12,677	7,783	20,460	(NA)	(NA)	(NA)
INDUSTRY 3554.—PAPER INDUSTRIES MACHINERY														
1963.....	204	217	92	18,605	130,614	12,914	27,233	82,299	217,475	196,467	403,925	10,348	88	90
1962.....	(NA)	(NA)	(NA)	19,099	128,540	13,263	27,385	78,218	194,120	203,176	398,581	(9,637)	(NA)	(NA)
1961.....	(NA)	(NA)	(NA)	18,610	117,943	12,726	25,381	70,377	188,003	182,299	364,967	(9,393)	(NA)	(NA)
1960.....	(NA)	(NA)	(NA)	18,439	117,458	12,868	27,159	73,564	191,045	202,301	380,011	(S)	(NA)	(NA)
1959.....	(NA)	(NA)	(NA)	16,788	97,422	12,012	24,670	60,696	150,184	167,799	333,310	7,033	(NA)	(NA)
1958.....	192	202	97	15,713	89,881	11,356	22,727	58,198	123,758	155,610	310,179	4,847	93	91
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,208	104,540	14,412	29,724	70,459	221,104	145,973	332,386	11,811	90	89
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,957	97,844	13,648	29,117	66,023	182,198	131,890	288,343	13,137	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,626	79,911	11,768	24,349	53,969	132,072	99,697	224,015	6,962	(NA)	(NA)
1954.....	1	169	98	15,003	73,713	11,516	23,745	50,057	109,803	92,479	206,951	4,916	85	86

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new  (\$1,000)	Spec- ializa- tion ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3554.—PAPER INDUSTRIES MACHINERY—Continued														
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,802	66,912	10,667	(NA)	46,610	99,682	78,867	178,549	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,487	71,654	11,880	(NA)	50,781	101,775	81,581	183,356	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,328	67,500	11,891	(NA)	48,213	97,581	76,153	173,734	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,939	51,054	9,761	(NA)	34,279	74,415	54,376	128,791	(NA)	(NA)	(NA)
1947.....	144	149	(NA)	17,088	57,749	13,398	29,782	41,523	81,358	69,727	151,085	(NA)	85	89
1939.....	(NA)	116	(NA)	(NA)	(NA)	5,570	(NA)	7,984	20,198	13,017	33,215	(NA)	(NA)	(NA)
1937 <sup>3</sup> .....	(NA)	91	(NA)	(NA)	(NA)	6,813	(NA)	10,861	24,391	19,015	43,406	(NA)	(NA)	(NA)
INDUSTRY 3555.—PRINTING TRADES MACHINERY														
1963.....	463	490	136	22,952	159,407	16,437	34,269	104,446	285,879	170,723	448,398	8,911	95	92
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,648	159,928	16,546	34,405	99,948	288,542	166,575	459,961	(13,675)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,156	151,010	16,287	33,324	96,795	270,084	159,593	420,759	9,596	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,243	143,040	15,554	32,545	92,312	246,718	151,471	399,418	10,233	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,763	128,037	14,613	31,009	82,192	220,205	128,000	342,926	5,824	(NA)	(NA)
1958.....	421	442	119	21,453	119,575	15,278	30,001	78,005	188,881	111,702	309,797	8,496	95	91
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,150	130,589	17,038	33,569	83,823	214,068	89,297	295,678	7,570	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,985	132,712	18,111	36,941	89,524	218,496	87,626	287,812	8,748	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,763	114,368	16,150	33,149	75,869	194,344	69,809	251,425	7,240	(NA)	(NA)
1954.....	342	358	109	21,960	110,679	16,416	33,027	74,515	178,966	95,538	276,320	6,634	95	90
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,554	98,554	15,011	(NA)	73,743	159,791	65,797	225,588	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,461	113,806	17,173	(NA)	79,428	171,233	79,270	250,503	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,421	110,813	18,265	(NA)	77,548	155,797	80,370	236,167	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,298	87,535	16,679	(NA)	61,219	141,855	62,073	203,928	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,512	88,352	18,271	(NA)	61,455	148,715	63,788	212,503	(NA)	(NA)	(NA)
1947.....	300	327	(NA)	24,880	84,750	19,684	42,739	62,919	138,915	60,447	199,362	(NA)	95	94
1939.....	(NA)	254	(NA)	(NA)	(NA)	9,564	(NA)	14,903	41,137	15,419	56,556	(NA)	(NA)	(NA)
1937.....	(NA)	230	(NA)	17,191	29,851	13,716	(NA)	22,378	57,662	20,966	78,628	(NA)	(NA)	(NA)
1935 <sup>6</sup> .....	(NA)	238	(NA)	12,935	20,484	9,884	(NA)	13,582	38,429	13,131	51,560	(NA)	(NA)	(NA)
INDUSTRY 3559.—SPECIAL INDUSTRY MACHINES, N.E.C.														
1963.....	1,074	1,092	388	50,226	330,127	34,063	70,932	199,400	572,236	443,993	1,015,014	22,533	83	74
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	48,936	313,576	34,012	68,296	189,315	527,639	433,886	961,728	17,669	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	50,666	313,986	35,008	68,914	187,384	512,486	435,167	960,555	20,000	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	53,448	322,993	36,780	75,549	196,961	532,552	436,730	955,940	21,644	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	51,253	299,238	35,255	72,538	182,948	494,794	398,324	873,618	17,202	(NA)	(NA)
1958 <sup>7</sup> .....	1,025	1,048	388	50,849	273,665	34,042	67,312	163,464	431,117	320,070	761,077	17,449	83	77
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	53,986	295,328	37,627	79,340	186,546	489,144	363,274	837,304	(S)	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	53,649	287,434	38,602	82,695	186,357	512,756	331,364	798,888	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	47,420	237,667	33,735	71,099	150,079	390,828	254,038	622,970	14,541	(NA)	(NA)
1954.....	898	917	330	47,007	218,553	33,997	69,310	141,160	353,857	244,974	625,053	13,742	81	73
1947 <sup>1</sup> .....	(NA)	1,185	(NA)	58,610	187,727	45,156	(NA)	134,013	294,236	189,041	483,275	(NA)	80	78

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: **All employees:** For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). **Production workers:** For 1947 and prior years figures represent an average of 12 monthly figures. **Value added:** Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. **Cost of materials:** Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. **Value of shipments:** Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.  
(X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

n.e.c. Not elsewhere classified.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>The figures for 1939 are not entirely comparable with those for earlier years. Value added by manufacture for 1939 on a basis comparable with 1937 was \$58.9 million for "Food-products machinery." No comparable figures are available for "Woodworking machinery" prior to 1939.

<sup>3</sup>"Food-products machinery" and "Paper-industries machinery" were not shown as separate industries prior to 1937, but were included with the industry formerly designated "Machinery, n.e.c.".

<sup>4</sup>The figures for "Textile machinery" for 1937 and earlier years are not entirely comparable with those for later years because they include data for establishments reporting roll covering or re-covering as their major activity. Figures for 1937 include 44 such establishments having \$1.1 million total value of products.

<sup>5</sup>"Textile machinery" was not shown as a separate industry prior to 1919, but was included with the industry formerly designated "Foundry and machine shop products."

<sup>6</sup>Prior to 1935, "Printing-trades machinery" was included among the three discontinued industries "Printers' supplies," "Engravers' materials," and "Foundry and machine shop products." Separate figures are, therefore, not available for earlier years.

<sup>7</sup>The 1957 edition of the Standard Industrial Classification redefined industry 3559 to include establishments primarily engaged in manufacturing electric and fuel-fired nonmetallic processing industrial furnaces, ovens, kilns, and lehrs which were formerly classified in industry 3567, Industrial Furnaces and Ovens. The effect of this change in definition is negligible, amounting to less than one percent both in total number of employees and value of shipments for 1958.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
INDUSTRY 3551.—FOOD PRODUCTS MACHINERY													
Total.....	681	279	31,684	205,368	21,018	43,276	118,036	380,406	255,278	640,507	11,031	27,715	268,639
New England.....	30	9	2,443	16,316	1,349	2,769	7,803	27,118	13,496	41,937	567	3,113	29,875
Massachusetts....	18	7	1,768	11,827	942	2,000	5,516	20,367	9,282	29,819	381	2,928	27,177
Middle Atlantic....	138	47	4,093	25,485	2,699	5,712	14,736	45,321	33,488	79,277	640	4,584	37,804
New York.....	78	25	2,013	12,131	1,300	2,571	6,864	20,441	16,100	36,872	223	2,398	22,008
East North Central.	202	97	13,108	89,381	8,615	17,687	50,037	182,653	109,772	295,052	5,400	11,583	122,537
Ohio.....	42	21	3,589	23,517	2,290	4,703	13,283	44,796	33,618	75,728	1,246	2,127	21,829
Indiana.....	16	5	587	3,421	507	1,007	2,723	9,363	5,281	13,164	504	742	6,990
Illinois.....	83	43	4,269	28,799	2,897	5,883	16,967	52,455	33,790	87,555	1,848	4,095	38,522
Michigan.....	21	11	2,340	18,563	1,408	2,884	8,173	79,708	17,510	70,688	765	2,227	32,659
Wisconsin.....	40	17	2,323	15,081	1,513	3,210	8,891	26,331	19,573	47,917	1,037	2,392	22,537
West North Central.	72	30	3,018	18,437	2,089	4,292	10,926	30,651	25,675	54,735	868	2,760	27,091
Minnesota.....	19	7	526	2,940	343	671	1,692	4,929	3,962	9,033	120	732	6,196
Iowa.....	17	10	1,084	6,224	754	1,464	3,729	9,251	9,550	17,242	382	909	9,288
Missouri.....	21	8	928	6,237	644	1,343	3,750	11,421	6,930	18,265	158	670	6,404
Kansas.....	10	5	454	2,939	330	775	1,698	4,913	5,014	9,849	193	447	5,173
South Atlantic....	60	37	3,883	22,588	2,698	5,637	14,475	38,392	29,699	70,278	1,227	2,303	19,729
Maryland.....	15	10	1,349	9,147	996	2,066	6,683	17,600	12,356	31,849	280	1,078	10,682
Georgia.....	15	10	921	4,711	669	1,434	2,969	7,178	7,030	14,372	132	648	5,287
Florida.....	17	10	905	5,057	521	1,090	2,541	8,284	5,458	13,690	410	277	1,252
East South Central.	12	4	378	2,674	222	462	1,380	5,764	2,296	7,405	38	153	1,657
Kentucky.....	7	4	357	2,551	206	429	1,280	5,595	2,182	7,136	32	130	1,623
West South Central.	37	13	1,197	7,151	811	1,630	3,528	11,603	10,131	22,017	1,011	596	4,824
Louisiana.....	4	2	153	905	117	260	629	1,451	1,281	2,882	(D)	212	1,675
Texas.....	22	7	856	5,424	565	1,112	2,338	8,639	7,709	16,525	831	281	2,475
West.....	130	42	3,564	23,336	2,535	5,087	15,151	38,904	30,721	69,806	1,280	2,623	25,122
Washington.....	14	5	241	1,432	190	370	1,115	2,056	1,615	3,634	30	104	952
California.....	99	31	2,660	17,495	1,828	3,712	11,178	29,333	24,565	54,594	1,058	2,214	21,449
INDUSTRY 3552.—TEXTILE MACHINERY													
Total.....	561	216	36,004	196,379	26,870	56,145	129,064	314,190	232,271	542,684	13,870	34,313	214,199
New England.....	138	58	14,260	82,268	10,131	21,510	52,327	132,277	92,006	221,990	5,971	16,367	98,328
Vermont.....	9	4	211	745	162	353	607	1,392	951	2,355	17	(2)	(2)
Massachusetts....	84	36	9,794	57,252	6,949	14,375	35,803	88,937	68,658	156,626	4,236	10,178	56,971
Rhode Island.....	28	10	2,250	13,238	1,467	3,185	7,606	26,475	15,125	39,624	1,238	1,893	15,139
Middle Atlantic....	171	51	8,707	51,426	6,836	13,815	36,547	73,054	50,436	122,381	3,548	8,357	55,338
New York.....	62	16	1,134	6,861	908	1,851	4,960	12,329	8,011	20,072	256	931	8,297
New Jersey.....	56	13	1,387	8,503	1,073	2,256	5,738	12,786	11,650	25,022	597	1,372	11,319
Pennsylvania.....	53	22	6,186	36,062	4,855	9,708	25,849	47,939	30,775	77,287	2,695	6,054	35,722
East North Central.	19	4	1,020	6,017	584	1,223	3,352	8,901	5,959	15,093	566	1,044	7,482
Ohio.....	5	2	102	625	70	149	307	904	876	2,004	17	121	1,024
West North Central.	5	1	42	197	31	66	126	314	375	690	11	(2)	(2)
South.....	219	102	11,936	56,265	9,261	19,477	36,573	99,251	83,188	181,832	3,754	(2)	(2)
North Carolina...	117	55	5,278	25,178	3,972	8,451	15,496	44,373	34,613	78,210	1,401	4,017	23,455
South Carolina...	48	25	4,811	22,133	3,781	7,943	14,855	38,356	37,666	76,459	1,554	2,773	17,235
Georgia.....	32	13	1,133	5,372	951	1,952	3,704	8,801	7,681	16,357	569	984	6,237
West.....	9	-	39	206	27	54	139	393	307	698	20	(2)	(2)
INDUSTRY 3553.—WOODWORKING MACHINERY													
Total.....	249	91	12,057	72,928	8,725	17,662	45,877	146,998	110,061	252,762	4,720	12,219	112,936
New England.....	20	5	511	3,098	348	726	1,817	4,339	2,825	7,401	77	1,592	11,170
Middle Atlantic....	25	8	986	6,245	618	1,204	3,343	8,563	6,684	15,281	295	1,068	11,038
New York.....	13	4	211	1,338	168	340	917	2,056	1,121	3,234	65	187	1,205
East North Central.	74	31	3,247	21,309	2,372	5,004	14,133	40,955	29,916	69,960	1,303	3,985	33,759
Ohio.....	11	3	352	2,552	262	584	1,611	4,820	4,561	9,491	140	666	6,965
Indiana.....	9	6	260	1,556	180	374	1,009	3,064	2,825	5,856	129	223	2,149
Illinois.....	18	6	1,046	5,989	731	1,533	3,925	12,645	6,702	19,459	167	1,405	9,179
Michigan.....	21	8	918	7,098	691	1,464	4,721	12,601	10,330	21,827	706	741	6,307
Wisconsin.....	15	8	671	4,114	508	1,049	2,867	7,825	5,498	13,327	161	950	9,159
West North Central.	12	7	985	6,269	733	1,502	4,203	10,773	9,582	20,299	874	271	2,283
South Atlantic....	16	8	985	4,506	664	1,282	2,512	22,125	12,567	33,744	455	678	11,789

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963										1958		
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3553.—WOODWORKING MACHINERY—Continued													
East South Central	13	6	837	3,178	648	1,248	2,239	8,137	7,670	16,043	255	1,139	8,866
Tennessee.....	5	2	335	1,042	267	508	805	1,806	2,220	4,045	66	585	2,786
West South Central.	11	5	365	1,966	325	555	1,532	4,185	3,147	7,408	119	207	2,496
Mountain.....	3	-	13	55	11	23	48	92	112	209	5	( <sup>2</sup> )	( <sup>2</sup> )
Pacific.....	75	21	4,128	26,302	3,006	6,118	16,050	47,829	37,558	82,417	1,337	( <sup>2</sup> )	( <sup>2</sup> )
Washington.....	20	7	649	4,651	474	907	3,067	6,424	6,050	12,069	84	( <sup>2</sup> )	( <sup>2</sup> )
Oregon.....	29	11	1,082	7,240	765	1,522	4,258	18,082	11,065	29,191	427	829	9,036
California.....	26	3	2,397	14,411	1,767	3,689	8,725	23,323	20,443	41,157	826	1,881	17,405
INDUSTRY 3554.—PAPER INDUSTRIES MACHINERY													
Total.....	217	92	18,605	130,614	12,914	27,233	82,299	217,475	196,467	403,925	10,349	15,713	123,758
New England.....	46	22	4,518	31,340	2,802	6,257	16,196	52,584	38,462	90,446	2,250	3,623	30,785
New Hampshire.....	6	3	1,392	9,090	874	1,947	4,429	16,559	9,451	26,169	1,077	1,273	11,694
Massachusetts.....	29	16	2,592	19,050	1,623	3,687	10,106	32,874	25,304	57,324	1,147	2,209	18,126
Middle Atlantic....	83	30	5,803	41,794	3,650	7,730	23,777	72,728	57,805	126,978	2,506	4,820	40,132
New York.....	41	12	2,544	18,162	1,570	3,305	10,239	32,048	28,707	59,527	1,099	2,326	17,861
New Jersey.....	21	9	1,869	14,149	1,180	2,475	8,045	24,786	19,447	41,682	557	1,528	13,586
Pennsylvania.....	21	9	1,390	9,483	900	1,950	5,493	15,894	9,651	25,769	850	966	8,685
East North Central.	48	26	6,931	48,370	5,415	10,986	35,620	78,674	89,359	162,548	4,570	5,537	39,659
Ohio.....	12	7	1,425	10,372	838	1,928	6,078	17,225	13,587	31,112	686	1,307	8,925
Wisconsin.....	24	15	5,286	36,668	4,400	8,698	28,586	59,258	74,287	127,714	3,833	4,001	28,738
West North Central.	7	1	86	749	70	171	564	1,098	483	1,542	99	( <sup>2</sup> )	( <sup>2</sup> )
South.....	21	8	777	4,908	593	1,345	3,563	6,876	7,275	14,174	763	( <sup>2</sup> )	( <sup>2</sup> )
Pacific.....	12	5	490	3,453	384	744	2,579	5,515	3,083	8,237	161	410	4,020
INDUSTRY 3555.—PRINTING TRADES MACHINERY													
Total.....	490	136	22,952	159,407	16,437	34,269	104,446	285,879	170,723	448,398	8,911	21,453	188,881
New England.....	43	14	1,973	12,859	1,400	3,041	8,168	23,574	13,810	36,036	1,184	1,892	14,221
Connecticut.....	14	7	934	6,120	671	1,407	4,012	12,281	5,309	16,528	489	799	6,561
Middle Atlantic....	190	53	9,681	68,255	7,215	14,931	46,770	119,920	64,827	183,153	2,256	10,746	91,807
New York.....	105	23	5,356	38,066	3,973	8,227	26,679	71,696	30,154	101,314	1,166	6,130	55,061
New Jersey.....	58	17	2,419	17,770	1,776	3,733	11,951	28,519	21,481	48,252	414	2,531	22,908
Pennsylvania.....	27	13	1,906	12,419	1,466	2,971	8,140	19,705	13,192	33,587	676	2,085	13,838
East North Central.	129	45	8,694	61,990	6,215	13,075	40,685	110,119	70,102	175,851	4,464	7,613	72,299
Ohio.....	35	10	2,548	16,562	1,942	3,926	11,623	35,040	23,579	57,213	1,169	1,953	20,218
Illinois.....	65	28	5,388	40,929	3,722	8,001	26,209	65,904	41,888	105,287	2,692	5,137	47,215
Michigan.....	18	6	626	3,569	470	984	2,404	7,622	3,728	11,106	582	393	3,785
West North Central.	36	5	893	5,353	442	871	2,060	9,699	9,153	18,706	324	357	3,156
Missouri.....	16	3	534	3,423	220	426	1,010	5,591	6,450	12,012	(D)	114	900
South Atlantic.....	19	2	136	793	96	205	450	1,530	842	2,368	24	( <sup>2</sup> )	( <sup>2</sup> )
East South Central.	9	2	224	1,422	172	331	962	2,375	2,368	4,644	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Kentucky.....	4	2	198	1,285	150	288	856	2,037	2,240	4,174	132	( <sup>2</sup> )	( <sup>2</sup> )
West South Central.	13	3	287	2,100	198	427	1,201	8,071	3,354	10,618	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	10	3	248	1,932	175	397	1,131	7,558	3,152	9,906	236	131	1,252
West.....	51	12	1,064	6,635	699	1,388	4,150	10,601	6,267	17,022	277	404	3,878
California.....	46	11	1,010	6,275	655	1,302	3,952	9,802	6,043	16,011	271	386	3,809
INDUSTRY 3559.—SPECIAL INDUSTRY MACHINES, N.E.C.													
Total.....	1,092	388	50,226	330,127	34,063	70,932	199,400	572,236	443,933	1,015,014	22,533	50,849	431,117
New England.....	123	39	8,008	53,246	5,499	10,939	32,933	84,447	55,794	141,480	3,521	6,941	57,413
Massachusetts....	72	26	5,104	32,977	3,424	6,734	20,390	46,995	28,907	78,285	2,169	4,163	31,659
Rhode Island.....	7	2	204	1,047	161	318	771	1,425	717	2,144	131	( <sup>2</sup> )	( <sup>2</sup> )
Connecticut.....	33	8	2,509	18,258	1,764	3,612	11,051	34,842	25,391	59,108	1,188	2,327	23,276
Middle Atlantic....	272	104	12,999	88,373	8,530	17,950	51,810	150,175	104,123	255,002	5,784	14,707	118,381
New York.....	88	23	3,884	26,856	2,610	5,285	16,366	48,594	28,182	75,391	1,068	5,898	45,984
New Jersey.....	105	50	5,058	32,893	3,401	7,355	19,837	56,331	42,360	99,658	2,495	4,331	38,928
Pennsylvania.....	79	31	4,057	28,624	2,519	5,310	15,607	45,250	33,581	79,953	2,221	4,478	33,469
East North Central.	334	141	16,902	113,231	11,764	24,734	70,846	203,317	171,721	376,402	6,462	16,107	148,802
Ohio.....	123	58	8,242	55,512	5,795	12,132	35,438	96,474	77,095	173,526	2,530	8,076	69,856
Indiana.....	29	9	1,960	12,656	1,331	2,708	7,597	21,203	13,957	34,969	1,235	1,741	14,427
Illinois.....	89	30	2,869	19,644	1,957	4,079	12,181	34,767	25,294	60,191	1,052	2,672	28,721
Michigan.....	68	34	3,005	19,859	2,129	4,653	12,596	39,512	46,725	87,502	1,457	2,882	28,859
Wisconsin.....	25	10	826	5,560	552	1,162	3,034	11,361	8,650	20,214	191	736	6,939

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3559.—SPECIAL INDUSTRY MACHINES, N.E.C.—Continued													
West North Central.	48	18	1,352	7,900	897	1,871	4,624	15,738	11,420	26,579	2,000	1,620	11,142
Minnesota.....	11	5	303	1,963	243	489	1,447	3,506	1,286	4,702	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Iowa.....	13	6	460	2,594	382	802	1,890	4,946	3,686	8,588	(D)	376	3,310
Missouri.....	15	3	360	2,053	126	253	629	3,547	4,811	8,006	(D)	825	3,824
South Atlantic.....	58	24	3,837	25,435	2,470	5,279	12,519	38,660	33,307	71,517	2,444	3,993	28,341
Virginia.....	5	3	175	1,009	131	260	600	1,641	1,190	2,942	(D)	435	1,729
North Carolina...	9	3	606	3,000	470	1,021	2,024	5,201	3,815	9,227	123	347	2,646
Georgia.....	14	7	816	4,287	574	1,231	2,330	8,768	5,740	14,062	385	1,020	8,498
Florida.....	11	1	246	1,522	151	343	717	3,286	2,811	5,971	70	192	803
East South Central.	30	12	1,451	8,096	1,098	2,201	5,557	17,509	12,347	26,398	439	1,126	8,943
Tennessee.....	14	4	328	1,825	267	544	1,414	3,242	1,705	4,940	256	225	2,035
Alabama.....	5	3	868	4,803	656	1,319	3,205	10,109	6,375	14,370	75	774	5,485
West South Central.	64	19	2,847	15,526	1,854	4,043	9,126	27,373	26,253	53,377	983	3,159	27,726
Oklahoma.....	13	3	332	1,973	248	503	1,274	3,677	3,030	6,626	118	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	46	12	2,253	12,529	1,404	3,103	7,169	21,037	20,660	41,894	765	2,648	24,604
Mountain.....	12	2	244	1,545	60	112	1,393	1,512	5,323	7,463	105	3,196	30,369
Pacific.....	151	29	2,586	16,775	1,891	3,803	10,592	33,505	23,645	56,796	792		
Oregon.....	12	2	330	2,221	234	475	1,491	4,197	3,496	7,643	40		
California.....	125	24	1,882	12,041	1,413	2,837	7,644	25,000	16,287	40,994	691		

- Represents zero.

(D) Withheld to avoid disclosing figures for individual companies.

n.e.c. Not elsewhere classified.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3551, Food Products Machinery: New England—Maine, 1 (1-19); Vermont, 2 (1-19); Rhode Island, 1 (1-19); Connecticut, 8 (645); Middle Atlantic—New Jersey, 24 (343); Pennsylvania, 36 (1737); West North Central—North Dakota, 1 (1-19); South Dakota, 1 (1-19); Nebraska, 3 (1-19); South Atlantic—Delaware, 1 (1-19); Virginia, 8 (394); North Carolina, 4 (250-499); East South Central—Tennessee, 2 (1-19); Alabama, 1 (1-19); Mississippi, 2 (1-19); West South Central—Arkansas, 4 (20-99); Oklahoma, 7 (104); Mountain—Idaho, 1 (1-19); Colorado, 3 (100-249); Arizona, 1 (1-19); Utah, 2 (100-249); Nevada, 1 (1-19); Pacific—Oregon, 6 (118); Hawaii, 1 (100-249).

SIC 3552, Textile Machinery: New England—Maine, 5 (450); New Hampshire, 5 (1,465); Connecticut, 7 (20-99); East North Central—Illinois, 7 (866); Michigan, 3 (1-19); Wisconsin, 4 (20-99); West North Central—Minnesota, 1 (1-19); Iowa, 2 (1-19); Missouri, 1 (20-99); Nebraska, 1 (1-19); South Atlantic—Delaware, 1 (20-99); Virginia, 3 (20-99); Florida, 4 (20-99); East South Central—Kentucky, 4 (100-249); Tennessee, 4 (399); Alabama, 4 (100); West South Central—Louisiana, 1 (1-19); Texas, 1 (1-19); Mountain—Utah, 1 (1-19); Pacific—Washington, 1 (1-19); Oregon, 1 (1-19); California, 6 (20-99).

SIC 3553, Woodworking Machinery: New England—Maine, 3 (1-19); New Hampshire, 3 (20-99); Massachusetts, 13 (397); Connecticut, 1 (1-19); Middle Atlantic—New Jersey, 3 (261); Pennsylvania, 9 (514); West North Central—Minnesota, 7 (873); Missouri, 5 (112); South Atlantic—Virginia, 1 (1-19); West Virginia, 1 (1-19); North Carolina, 10 (794); South Carolina, 1 (1-19); Georgia, 3 (185); East South Central—Kentucky, 3 (1-19); Alabama, 2 (100-249); Mississippi, 3 (250-499); West South Central—Arkansas, 3 (20-99); Louisiana, 1 (100-249); Texas, 7 (100-249); Mountain—Colorado, 1 (1-19); New Mexico, 1 (1-19); Utah, 1 (1-19).

SIC 3554, Paper Industries Machinery: New England—Maine, 3 (20-99); Rhode Island, 4 (473); Connecticut, 4 (1-19); East North Central—Indiana, 4 (109); Illinois, 4 (20-99); Michigan, 4 (20-99); West North Central—Minnesota, 3 (20-99); Missouri, 2 (1-19); Kansas, 2 (1-19); South Atlantic—Maryland, 4 (461); Virginia, 2 (100-249); West Virginia, 1 (1-19); South Carolina, 1 (1-19); Florida, 5 (20-99); East South Central—Kentucky, 1 (20-99); Alabama, 3 (20-99); West South Central—Arkansas, 1 (20-99); Louisiana, 2 (20-99); Oklahoma, 1 (1-19); Pacific—Washington, 1 (250-499); Oregon, 2 (20-99); California, 8 (196).

SIC 3555, Printing Trades Machinery: New England—New Hampshire, 4 (455); Vermont, 1 (1-19); Massachusetts, 21 (578); Rhode Island, 3 (1-19); East North Central—Indiana, 3 (20-99); Wisconsin, 8 (106); West North Central—Minnesota, 10 (108); Iowa, 5 (20-99); Nebraska, 3 (1-19); Kansas, 2 (100-249); South Atlantic—Maryland, 7 (20-99); District of Columbia, 1 (1-19); North Carolina, 5 (1-19); Georgia, 5 (20-99); Florida, 1 (1-19); East South Central—Tennessee, 3 (1-19); Alabama, 2 (1-19); West South Central—Louisiana, 1 (1-19); Oklahoma, 2 (20-99); Mountain—Colorado, 1 (1-19); New Mexico, 1 (20-99); Arizona, 2 (1-19); Pacific—Oregon, 1 (1-19).

SIC 3559, Special Industry Machines, N.E.C.: New England—Maine, 5 (20-99); New Hampshire, 3 (1-19); Vermont, 3 (128); West North Central—North Dakota, 2 (20-99); South Dakota, 1 (1-19); Kansas, 6 (197); South Atlantic—Delaware, 5 (500-999); Maryland, 7 (1,135); District of Columbia, 1 (1-19); West Virginia, 3 (20-99); South Carolina, 3 (20-99); East South Central—Kentucky, 9 (100-249); Mississippi, 2 (1-19); West South Central—Arkansas, 1 (20-99); Louisiana, 4 (100-249); Mountain—Idaho, 1 (20-99); Colorado, 5 (176); Arizona, 4 (20-99); Utah, 2 (20-99); Pacific—Washington, 13 (250-499); Hawaii, 1 (1-19).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

TABLE 3. Detailed Statistics: 1963

Item	Food products machinery (SIC 3551)	Textile machinery (SIC 3552)	Woodworking machinery (SIC 3553)	Paper industries machinery (SIC 3554)	Printing trades machinery (SIC 3555)	Special industry machines, n.e.c. (SIC 3559)
Primary product specialization ratio <sup>1</sup> .....	.86	.93	.77	.88	.95	.83
Coverage ratio <sup>2</sup> .....	.87	.94	.81	.90	.92	.74
Establishments, total.....number..	681	561	249	217	490	1,092
With 1 to 19 employees.....do....	402	345	158	125	354	704
With 20 to 99 employees.....do....	203	156	67	51	86	285
With 100 employees or more.....do....	76	60	24	41	50	103
Proprietors and working partners.....do....	226	195	90	49	151	400
All employees (average for the year).....do....	31,684	36,004	12,057	18,605	22,952	50,226
Payroll (all employees), total for year.....\$1,000..	205,368	196,379	72,928	130,614	159,407	330,127
Production workers:						
Average for the year.....number..	21,018	26,870	8,725	12,914	16,437	34,063
March.....do....	20,750	27,001	8,451	12,786	16,903	33,818
May.....do....	21,114	26,989	8,388	12,913	16,173	33,612
August.....do....	21,011	27,078	8,834	12,731	15,931	34,016
November.....do....	21,197	26,412	9,228	13,226	16,742	33,805
Man-hours.....1,000..	43,276	56,145	17,662	27,233	34,269	70,932
January-March.....do....	10,804	14,169	4,425	6,693	8,899	17,768
April-June.....do....	11,104	14,343	4,496	6,882	8,882	18,332
July-September.....do....	10,355	13,382	4,467	6,634	7,727	17,195
October-December.....do....	11,013	14,251	4,274	7,024	8,761	17,637
Wages.....\$1,000..	118,036	129,064	45,877	82,299	104,446	199,400
Cost of materials, etc., total.....do....	255,278	232,271	110,061	196,467	170,723	443,933
Materials, parts, containers, and supplies consumed.....do....	204,807	209,812	94,429	165,618	123,152	355,869
Cost of resales.....do....	35,443	12,946	9,379	22,729	36,978	58,568
Fuels consumed.....do....	1,636	2,516	941	1,324	977	3,579
Electric energy:						
Purchased:						
Quantity.....million kw.-hrs..	160	202	100	122	101	324
Cost.....\$1,000..	2,673	3,006	1,375	1,896	1,821	5,096
Generated less sold.....million kw.-hrs..	-	7	(D)	(D)	-	(D)
Contract work.....\$1,000..	10,719	3,991	3,937	4,900	7,795	20,781
Value of shipments (including resales), total.....do....	640,507	542,684	252,762	403,925	448,398	1,015,014
Value of resales.....do....	44,426	17,716	13,427	29,487	47,965	75,739
Value added by manufacture, adjusted.....do....	380,406	314,190	146,998	217,475	285,879	572,236
Manufacturers' inventories:						
Beginning of year, total.....do....	156,779	132,424	47,246	93,401	121,987	240,723
Finished products.....do....	59,299	39,657	15,306	15,222	39,544	85,502
Work-in-process.....do....	58,206	51,577	20,610	53,119	59,073	88,482
Materials, supplies, fuel, etc.....do....	39,274	41,190	11,330	25,060	23,370	66,739
End of year, total.....do....	154,082	135,260	57,582	103,239	129,233	238,295
Finished products.....do....	56,195	41,940	16,678	17,674	43,566	85,539
Work-in-process.....do....	56,487	53,071	23,535	60,684	63,255	89,599
Materials, supplies, fuel, etc.....do....	41,400	40,249	17,369	24,881	22,412	63,156
Expenditures for plant and equipment, total.....do....	11,925	15,180	5,748	11,948	9,625	24,663
New, total.....do....	11,031	13,870	4,720	10,349	8,911	22,533
New structures and additions to plant.....do....	3,004	2,815	1,641	3,142	1,273	5,903
New machinery and equipment.....do....	8,027	11,055	3,079	7,207	7,638	16,630
Used plant and equipment.....do....	894	1,310	1,028	1,599	714	2,130
Selected operating ratios:						
Payroll/Total employment.....	6,482	5,454	6,049	7,020	6,945	6,573
Production workers/Total employment.....	.66	.75	.72	.69	.72	.68
Man-hours/Production workers.....	2,058	2,090	2,024	2,109	2,085	2,082
Production worker wages/Man-hours.....	2.73	2.30	2.60	3.02	3.05	2.81
Cost of materials and payrolls/Total value of shipments.....	.72	.79	.72	.81	.74	.76
Cost of materials/Total value of shipments.....	.40	.43	.44	.49	.38	.44
Adjusted value added/Total employment.....	12,006	8,727	12,192	11,689	12,415	11,393
Salaries and wages/Adjusted value added.....	.54	.63	.50	.60	.56	.58

Note: Detail figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. n.e.c. Not elsewhere classified.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3551.—FOOD PRODUCTS MACHINERY											
Establishments.....number..	681	202	105	95	142	61	53	14	8	1	-
All employees:											
Total.....do....	31,684	398	717	1,327	4,610	4,350	7,791	5,134	<u>7,357</u>	(D)	-
Payroll.....\$1,000..	205,368	2,065	4,059	8,370	28,580	26,836	48,815	33,783	<u>52,860</u>	(D)	-
Value added, adjusted.....do....	380,406	4,548	7,355	15,654	47,407	50,795	88,289	54,158	<u>112,200</u>	(D)	-
Value of shipments.....do....	640,507	8,502	12,826	28,279	81,331	88,744	155,304	95,761	<u>169,760</u>	(D)	-
Capital expenditures, new.....do....	11,031	132	161	359	1,066	1,555	2,957	2,517	<u>2,284</u>	(D)	-
INDUSTRY 3552.—TEXTILE MACHINERY											
Establishments.....number..	561	159	92	94	116	40	34	15	4	5	2
All employees:											
Total.....do....	36,004	295	627	1,334	3,651	2,869	5,482	5,101	2,589	<u>14,056</u>	(D)
Payroll.....\$1,000..	196,379	1,470	2,948	6,821	18,864	14,323	29,505	29,177	12,865	<u>80,406</u>	(D)
Value added, adjusted.....do....	314,190	2,039	5,589	11,808	31,220	24,813	48,729	45,841	24,917	<u>119,234</u>	(D)
Value of shipments.....do....	542,684	4,702	9,397	21,896	52,904	44,205	85,950	86,900	37,184	<u>199,546</u>	(D)
Capital expenditures, new.....do....	13,870	125	192	379	1,188	611	2,041	1,932	1,153	<u>6,249</u>	(D)
INDUSTRY 3553.—WOODWORKING MACHINERY											
Establishments.....number..	249	72	47	39	40	27	15	7	1	1	-
All employees:											
Total.....do....	12,057	110	321	593	1,240	1,835	2,520	<u>5,438</u>	(D)	(D)	-
Payroll.....\$1,000..	72,928	800	1,640	3,303	7,386	11,645	16,097	<u>32,057</u>	(D)	(D)	-
Value added, adjusted.....do....	146,998	2,025	3,230	7,153	12,131	20,110	23,193	<u>126,167</u>	(D)	(D)	-
Value of shipments.....do....	252,762	4,243	6,072	13,002	21,684	38,420	43,174	<u>126,167</u>	(D)	(D)	-
Capital expenditures, new.....do....	4,720	95	94	234	290	1,242	726	<u>2,039</u>	(D)	(D)	-
INDUSTRY 3554.—PAPER INDUSTRIES MACHINERY											
Establishments.....number..	217	53	32	40	36	15	19	16	5	-	1
All employees:											
Total.....do....	18,605	103	215	566	1,208	1,025	3,171	5,528	<u>6,789</u>	-	(D)
Payroll.....\$1,000..	130,614	667	1,237	3,494	7,867	6,829	22,438	39,877	<u>48,205</u>	-	(D)
Value added, adjusted.....do....	217,475	922	2,057	6,339	12,508	10,632	37,422	66,622	<u>80,973</u>	-	(D)
Value of shipments.....do....	403,925	1,784	3,309	9,688	22,196	18,933	68,022	116,581	<u>163,412</u>	-	(D)
Capital expenditures, new.....do....	10,349	57	68	211	451	475	1,526	3,266	<u>4,295</u>	-	(D)
INDUSTRY 3555.—PRINTING TRADES MACHINERY											
Establishments.....number..	490	191	86	77	62	24	26	15	8	1	-
All employees:											
Total.....do....	22,952	360	605	1,103	1,945	1,528	4,223	5,208	<u>7,980</u>	(D)	-
Payroll.....\$1,000..	159,407	2,188	3,532	6,998	12,693	9,814	28,445	35,880	<u>59,857</u>	(D)	-
Value added, adjusted.....do....	285,879	5,244	6,458	12,920	23,468	20,331	51,016	61,711	<u>104,731</u>	(D)	-
Value of shipments.....do....	448,398	8,255	10,081	20,788	38,933	32,139	76,126	101,755	<u>160,321</u>	(D)	-
Capital expenditures, new.....do....	8,911	149	147	337	526	490	2,068	1,935	<u>3,259</u>	(D)	-
INDUSTRY 3559.—SPECIAL INDUSTRY MACHINERY, N.E.C.											
Establishments.....number..	1,092	324	191	189	189	96	62	23	12	6	-
All employees:											
Total.....do....	50,226	611	1,287	2,589	6,022	6,538	9,453	8,003	7,847	7,876	-
Payroll.....\$1,000..	330,127	3,221	7,206	15,361	38,519	42,711	60,204	53,333	54,244	55,328	-
Value added, adjusted.....do....	572,236	6,867	13,629	28,840	68,179	77,435	100,038	10,468	89,515	80,314	-
Value of shipments.....do....	1,015,014	12,908	23,319	48,963	123,540	132,835	190,948	194,965	152,061	135,475	-
Capital expenditures, new.....do....	22,533	310	511	983	2,285	2,502	6,770	2,881	2,656	3,636	-

- Represents zero. (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.  
n.e.c. Not elsewhere classified.

**TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscel- laneous receipts	Primary product special- ization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
(Col. B Col. B:C (percent)	(Col. B Col. F (percent)									
A	B	C	D	E	F	G	H	I		
3551	Food products machinery.....1963.. 1958..	640,507	450,556	71,860	118,091	86	517,304	450,556	66,748	87
		456,171	334,764	51,725	69,682	87	399,846	334,764	65,082	84
3552	Textile machinery.....1963.. 1958..	542,684	467,902	37,869	36,913	93	499,096	467,902	31,194	94
		376,340	304,233	45,058	27,049	87	322,239	304,233	18,006	94
3553	Woodworking machinery.....1963.. 1958..	252,762	178,873	52,281	21,608	77	220,822	178,873	41,949	81
		214,376	149,808	42,438	22,130	78	174,489	149,808	24,681	86
3554	Paper industries machinery.....1963.. 1958..	403,925	312,775	41,922	49,228	88	347,552	312,775	34,777	90
		310,179	253,624	19,442	37,113	93	280,106	253,624	26,482	91
3555	Printing trades machinery.....1963.. 1958..	448,398	369,476	17,710	61,212	95	403,215	369,476	33,739	92
		309,797	249,845	14,650	45,302	95	273,301	249,844	23,457	91
3559	Special industry machines, n.e.c.....1963.. 1958..	1,015,014	734,336	150,390	130,288	83	988,355	734,336	254,019	74
		761,077	558,163	114,704	88,210	83	726,212	557,938	168,274	77

NOTE: See Introduction for an explanation of terms used.

n.e.c. Not elsewhere classified.

**TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963**

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)

miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Food products machinery (SIC 3551)	Special industry machines, n.e.c. (SIC 3559)	Other industries
	FOOD PRODUCTS MACHINERY INDUSTRY				
	Total shipments receipts of the industry.....	(X)	640,507	(X)	(X)
	Primary products, total,.....	517,304	450,556	20,032	46,716
35511	Dairy and milk products plant machinery and equipment.....	71,589	62,117	490	18,982
35512	Commercial food-products machinery.....	117,638	100,843	6,307	10,486
35513	Other industrial food-products machinery.....	300,481	260,224	13,235	27,022
35510	Food-products machinery, n.s.k.....	27,596	27,370	-	226
	Secondary products, total.....	(X)	71,860	(X)	(X)
3443-	Fabricated plate work.....	(X)	3,537	(X)	(X)
3535-	Conveyors and conveying equipment.....	(X)	2,190	(X)	(X)
3542-	Metal forming machine tools.....	(X)	4,467	(X)	(X)
3559-	Special industry machinery.....	(X)	19,859	(X)	(X)
35690	General industrial machinery, n.e.c.....	(X)	10,678	(X)	(X)
3529-	Service industry machines, n.e.c.....	(X)	2,134	(X)	(X)
	Other secondary products.....	(X)	428,995	(X)	(X)
	Miscellaneous receipts, total.....	(X)	118,091	(X)	(X)
	Contract and commission work.....	(X)	5,704	(X)	(X)
	Sales of products bought and resold.....	(X)	44,426	(X)	(X)
	Installation work by manufacturing.....	(X)	5,995	(X)	(X)
	Scrap and salable refuse and repair work.....	(X)	16,221	(X)	(X)
	Other.....	(X)	45,745	(X)	(X)

See footnotes at end of table.



1963—Continued

See footnotes at end of table.

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Special industry machines, n.e.c. (SIC 3559)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Special industry machines, n.e.c. (SIC 3559)	Other industries
	SPECIAL INDUSTRY MACHINES INDUSTRY					SPECIAL INDUSTRY MACHINES INDUSTRY—Continued			
	Total shipments and receipts of the industry.....	(X)	1,015,014	(X)		Secondary products—Continued			
	Primary products, total.....	988,355	734,336	254,019	35512	Commercial food products machinery.....	(X)	6,307	(X)
35591	Chemical manufacturing industry machinery.....	152,371	106,863	1645,508	35513	Other industrial food products machinery.....	(X)	13,235	(X)
35592	Foundry machinery.....	89,569	78,447	1711,122	35540	Paper industries machinery and parts and attachments.....	(X)	11,172	(X)
35593	Plastics-working machinery.....	137,082	103,214	1833,868	35690	General industrial machinery, n.e.c.....	(X)	15,854	(X)
35594	Rubber-working machinery.....	76,759	66,608	1910,151	35990	Carburetors, pistons, and other machine shop products.....	(X)	2,998	(X)
35595	Other special industrial machinery	500,225	347,358	20152,867		Other secondary products.....	(X)	2179,387	(X)
35590	Special industrial machinery, n.s.k.....	32,349	31,846	503		Miscellaneous receipts, total.....	(X)	130,288	(X)
	Secondary products, total.....	(X)	150,390	(X)		Contract work.....	(X)	21,587	(X)
33214	All other gray iron castings.....	(X)	3,892	(X)		Miscellaneous receipts (repair installation, and sales of scrap)	(X)	32,962	(X)
34432	Fabricated steel plate, including stacks and weldments.....	(X)	2,454	(X)		Sales of products bought and resold without further manufacture.....	(X)	75,739	(X)
34990	Fabricated metal products, n.e.c.....	(X)	3,781	(X)					
35423	Other metal forming machine tools.....	(X)	8,451	(X)					
35442	Industrial molds.....	(X)	2,859	(X)					

- Represents zero. (X) Not applicable.

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>The following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing individual company figures: 3443, Boiler Shop Products, and 3522, Farm Machinery and Equipment.<sup>2</sup>The following industry had shipments which totaled \$2 million or more but is withheld to avoid disclosing individual company figures: 3532, Mining Machinery and Equipment.<sup>3</sup>Includes chemical manufacturing industries machinery and equipment (product class 35591) valued at \$13,511 thousand.<sup>4</sup>Includes the following product class which totaled \$2 million or more but is withheld to avoid disclosing individual company figures: 3554, Paper Industries Machinery.<sup>5</sup>The following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3541, Metal-Cutting Machine Tools, and 3559, Special Industry Machines, N.E.C.<sup>6</sup>The following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3531, Construction Machinery, and 3717, Motor Vehicles and Parts.<sup>7</sup>Includes the following product classes which totaled \$2 million or more but are withheld to avoid disclosing individual company figures: 34990, Fabricated metal products, n.e.c., and 35790, Addressing, dictating, duplicating and other office machines, n.e.c.<sup>8</sup>Includes \$9,157 thousand shipped by industry 3541, Metal-Cutting Machine Tools. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3522, Farm Machinery and Equipment; 3531, Construction Machinery; and, 3542, Metal-Forming Machine Tools.<sup>9</sup>The following industry had shipments which totaled \$2 million or more but is withheld to avoid disclosing figures for individual companies: industry 3621, Motors and Generators.<sup>10</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 33214, All other gray iron castings; 35422, Special industrial fasteners; 35195, Outboard motors; 35197, Parts and accessories for internal combustion engines; and, 37176, Parts and accessories for passenger cars, trucks and busses shipped to other than motor vehicle manufacturers.<sup>11</sup>Includes \$11,217 thousand shipped by industry 3559, Special Industry Machines, N.E.C. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: industry 3315, Steel Wire Drawing, Etc.; industry 3551, Food Products Machinery; and, industry 3731, Ship Building and Repairing.<sup>12</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 34819, Other fabricated wire products, not produced by wire drawers; 35551, Printing presses; 35663, Other mechanical power-transmission equipment; and 35690, General industrial machinery, n.e.c.<sup>13</sup>The following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3552, Textile Machinery, and 3554, Paper Industries Machinery.<sup>14</sup>Includes \$5,543 thousand shipped by industry 3069, Rubber Products, N.E.C. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3011, Tires and Inner Tubes, 3551, Copper Rolling and Drawing, and 3622, Industrial Controls, 3572, Typewriters.<sup>15</sup>Includes the following product classes which totaled \$2 million or more but are withheld to avoid disclosing individual company figures: 3552, Textile Machinery, and 35790, Office machines, n.e.c.<sup>16</sup>Includes shipments for the specified amounts (in thousands) for the following industries: \$2,996 by industry 3443, Boiler Shop Products; \$13,511 by industry 3551, Food Products Machinery. In addition, the following industries each shipped \$2 million or more, but are withheld to avoid disclosing figures for individual companies: 3536, Hoists, Cranes and Monorails; 3554, Paper Industries Machinery; 3567, Industrial Furnaces and Ovens; and 3742, Railroad and Street Cars.<sup>17</sup>Over \$2 million was shipped by industry 3541, Metal-Cutting Machine Tools. The exact figure is withheld to avoid disclosing data for individual companies.<sup>18</sup>Includes \$16,489 thousand from industry 3541, Metal-Cutting Machine Tools. In addition, over \$2 million was shipped by industry 3554, Paper Industries Machinery.<sup>19</sup>Over \$2 million was shipped by industry 3544, Special Dies and Tools. The exact figure is withheld to avoid disclosing data for individual companies.<sup>20</sup>Includes shipments for the specified amounts (in thousands) for the following industries: \$4,676 by industry 3443, Boiler Shop Products; \$5,227 by industry 3535, Elevators and Moving Stairways; \$4,040 by industry 3548, Metalworking Machinery; \$3,243 by industry 3551, Food Products Machinery; \$5,266 by industry 3552, Textile Machinery; \$2,461 by industry 3553, Woodworking Machinery; \$9,843 by industry 3567, Industrial Furnaces and Ovens; \$2,007 by industry 3569, General Industry Machines, N.E.C.; \$3,010 by industry 3599, Miscellaneous Machinery; and, \$3,984 by industry 3731, Ship Building and Repairing. In addition each of the following industries reported more than \$2 million: 1999, Ordnance and Accessories, N.E.C.; 3211, Flat Glass, 3356, Rolling and Drawing, N.E.C.; 3532, Mining Machinery and Equipment; 3545, Machine Tool Accessories; 3585, Refrigeration Machinery; 3586, Measuring and Dispensing Pumps; 3641, Electric Lamps; 3661, Telephone; Telegraph Apparatus; 3674, Semiconductors; 3861, Photographic Equipment.<sup>21</sup>Includes shipments of over \$2 million for each of the following product classes: 32914, Metal abrasives; 33220, Malleable iron castings; 35414, Grinding and polishing machines; 35422, Presses including forging presses; 35521, Textile machinery; 35642, Dust collection, air purification equipment and air washers; 37292, Guided missile components and subassemblies, n.e.c.; and, 38213, Industrial process instruments.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3551- --	FOOD PRODUCTS MACHINERY, TOTAL.....	.....	(X)	517,304	(X)	399,846
35511 --	Dairy and milk product plant machinery and equipment, including dairy bottling machines, total.....	.....	(X)	71,589	(X)	64,611
35511 11	Fluid milk bottling filling, packaging and capping machines (glass, paper and other materials).....	.....	(X)	13,166	(X)	9,154
35511 12	Butter, cheese, dry milk, and ice cream packaging machines.....	No. of units.	718	4,772	(X)	(1)
35511 13	Uncasers and casers.....	..do.....	347	4,685	(X)	(1)
35511 14, 16	Washing, sterilizing, capping, and other dairy bottling machines.....	.....	(X)	3,923	(X)	6,849
35511 43	Pasteurizers.....	No. of units.	497	3,921	(NA)	6,244
35511 51	Homogenizers.....	..do.....	288	1,842	398	2,613
35511 73	Ice cream freezers.....	..do.....	4,955	11,789	(NA)	2,947
35511 83	Butter and cheese processing plant machinery and equipment.....	..do.....	755	3,266	(NA)	1,966
35511 91	Dry milk processing plant machinery and equipment.....	..do.....	58	4,642	(X)	132,261
35511 98	Other dairy and milk products processing plants machinery and equipment, including cream separators (capacity over 1,500 pounds per hour).....	.....	(X)	18,193		
35511 00	Dairy and milk products plant machinery and equipment, including dairy bottling machines, n.s.k.....	.....	(X)	1,390	(X)	2,577
35512 --	Commercial food-products machinery, total <sup>2</sup> .....	.....	(X)	117,638	(X)	100,980
35512 11	Slicers.....	No. of units.	20,511	9,774	21,849	7,472
35512 21	Choppers, grinders, cutters, dicers, and similar machines.....	..do.....	35,174	15,134	34,584	11,527
35512 25	Tenderizers.....	..do.....	6,131	1,053	7,943	1,315
35512 31	Mixers and whippers (except drink mixers).....	..do.....	13,706	10,956	10,739	7,487
35512 41	Parts and attachments for commercial food-preparation machines.....	.....	(X)	10,080	(X)	4,995
35512 51	Other commercial food-preparation machines, power-driven.....	.....	(X)	12,705	(X)	8,474
35512 61	Bakery machinery and equipment: Dough mixers.....	No. of units.	5,476	3,508	(NA)	6,584
35512 71	Bake ovens: Traveling tray.....	..do.....	106	4,584	274	5,126
35512 75	Other.....	..do.....	1,373	5,230	560	3,085
35512 81	Slicing machines <sup>3</sup> .....	..do.....	1,405	2,422	747	1,176
35512 85	Wrapping machines <sup>3</sup> .....	..do.....	314	4,568	231	2,979
35512 87	Continuous bread making equipment.....	.....	(X)	4,318	(X)	25,890
35512 91	Other bakery machinery and equipment.....	.....	(X)	28,597		
35512 00	Commercial food products machinery, n.s.k.....	.....	(X)	4,709	(X)	14,870
35513 --	Other industrial food-products machinery, including parts and attachments for all types of industrial food products machinery, total.....	.....	(X)	300,481	(X)	210,790
35513 11	Meat- and poultry-packing plant machinery and equipment, including killing, dehairing, stuffing, cooking, rendering, cutting, pressing, grinding, chopping, and canning machines, etc.....	.....	(X)	32,696	(X)	26,439
35513 23	Fruit- and vegetable-canning and packing machinery: Preparation machinery.....	.....	(X)	17,018	(X)	12,556
35513 25	Wrapping, filling and sealing machinery.....	.....	(X)	6,685	(X)	8,640
35513 27	Packing machinery.....	No. of units.	759	5,539	(X)	12,857
35513 29	All other fruit- and vegetable-canning machinery.....	.....	(X)	12,765		
35513 33	Flour mill and grain mill machinery: Packing and packaging machinery.....	.....	(X)	32,637	(X)	35,244
35513 39	Other flour mill and grain mill machinery.....	.....				
35513 43	Sugar plant machinery, including cane and beet mills, crushers, pulverizers, crystalizers, granulators, etc: Packing and packaging machinery.....	.....	(X)	13,783	(X)	18,617
35513 49	Other sugar-plant machinery.....	.....	(X)	11,265		
35513 53	Other industrial food products machinery: Packing and packaging machinery.....	.....	(X)	30,884	(X)	29,069
35513 59	Other industrial food products machinery.....	.....	(X)	37,731		
35513 65	Bottling machinery for foods (except dairy products), liquor, beer, wine, and other beverages: Filling, capping and labeling machines.....	No. of units.	1,798	27,401	4658	48,686
35513 66	Uncasers and casers.....	..do.....	445	3,452	(X)	(5)
35513 67	Bottle washers and sterilizers.....	..do.....	380	11,409	225	8,009
35513 61, 69	Carbonators (beverage bottling) and other food bottling machinery except dairy.....	.....	(X)	15,121	(X)	519,120
35513 81	Parts and attachments for industrial food-products machinery.....	.....	(X)	33,161	(X)	19,434
35513 00	Other industrial food products machinery, including parts and attachments for all types of industrial food products machinery, n.s.k.....	.....	(X)	8,934	(X)	12,119
35510 00	Food products machinery, n.s.k.....	.....	(X)	27,596	(X)	23,465

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3552- --	TEXTILE-INDUSTRIES MACHINERY, TOTAL.....	.....	(X)	499,096	(X)	322,239
35521 --	Textile machinery, total.....	.....	(X)	252,569	(X)	143,720
	Fiber-to-fabric textile machinery (except parts, attachments, and accessories):					
	Cleaning and opening machinery:					
35521 13	Picker machines.....	Number.....	791	2,838	618	1,989
35521 19	Garnetting and other.....	...do.....	271	1,465	(NA)	2,565
35521 22	Carding machines.....	...do.....	451	3,311	265	2,422
35521 32	Combing machines.....	...do.....	(6)	(6)	236	2,774
35521 36	Drawing and roving frames.....	...do.....	1,701	16,289	1,168	11,057
	Spinning and twisting frames:					
35521 42	Spinning frames.....	...do.....	2,636	29,101	852	11,172
35521 46	Twisting frames.....	Total no. of spindles.....	756,346	(X)	166,840	(X)
35521 47		Number.....	711	11,979	552	7,874
35521 48		Total no. of spindles.....	85,885	(X)	72,313	(X)
	Yarn preparing machines:					
35521 51	Winding machines (skein, spool, bobbin, quill, cone, etc.)...	Number.....	1,016	13,830	409	5,641
35521 53	Other yarn-preparing machines (beaming, warping, warp tying, warp drawing-in, splashing, etc.).....	.....	(X)	6,509	(X)	8,821
35521 55	Other fiber-to-fabric machinery.....	.....	(X)	619,241	(X)	4,183
	Fabric machinery (except parts, attachments, and accessories):					
	Power looms (including looms operating without shuttle):					
35521 64	Cotton and synthetic broadlooms, except carpet.....	Number of looms.....	(7)	(7)	(NA)	10,620
35521 68	All other power looms.....	...do.....				
	Knitting machines:					
35521 72	Hosiery (circular and full fashioned).....	Number.....	5,655	22,011	5,184	20,486
35521 75	Other knitting machines.....	...do.....	1,660	17,216	964	6,892
35521 84	Other fabric machinery (including lace, embroidery, braiding, and tufting machinery, and hand looms).....	.....	(NA)	746,199	(X)	4,525
35521 85	Bleaching, dyeing, and finishing machinery.....	.....	(X)	28,080	(X)	11,127
35521 87	Machinery for drying stocks, yarns, cloth, etc.....	.....	(X)	7,950	(X)	4,419
35521 98	Other textile industries machinery, n.e.c., (except parts, attachments, and accessories).....	.....	(X)	23,503	(X)	17,759
35521 00	Textile machinery, n.s.k.....	.....	(X)	3,047	(X)	9,394
35522 --	Parts and attachments for textile machinery.....	.....	(X)	232,122	(X)	168,737
	Textile-industries machinery, parts, attachments, and accessories:					
35522 11	Textile machinery turnings and shapes (bobbins, shuttles, spools, picker sticks, etc.).....	.....	(X)	38,196	(X)	23,939
	Parts, attachments, and accessories for fiber-to-fabric machinery:					
35522 22	Card clothing.....	1,000 sq. ft...	1,912	9,330	1,747	7,121
35522 31	Other parts, attachments, and accessories for fiber-to-fabric machinery, except card clothing.....	.....	(X)	47,425	(X)	38,980
35522 41	Parts, attachments, and accessories for power looms.....	.....	(X)	66,210	(X)	38,588
35522 45	Parts, attachments, and accessories for knitting machines, excluding needles.....	.....	(X)	10,677	(X)	11,168
35522 53	Parts, attachments, and accessories for fabric machinery (except parts, attachments, and accessories for power looms and knitting machines).....	.....	(X)	6,808	(X)	7,730
35522 71	Parts, attachments, and accessories for bleaching, dyeing, and finishing machinery.....	.....	(X)	7,655	(X)	6,135
35522 98	Textile-industries machinery parts, attachments, and accessories, n.e.c.....	.....	(X)	40,585	(X)	26,240
35522 00	Parts and attachments for textile machinery, n.s.k.....	.....	(X)	5,236	(X)	8,836
35520 00	Textile-industries machinery, including parts and attachments, n.s.k.....	.....	(X)	14,405	(X)	9,782

See footnotes at end of table.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3553- --	WOODWORKING MACHINERY, TOTAL.....	.....	(X)	220,822	(X)	174,489
35531 --	Woodworking machinery (except machinery designed primarily for home work shops, garages, and service shops), total.....	.....	(X)	185,987	(X)	145,078
35531 12	Sawmill equipment.....	.....	(X)	22,398	(X)	15,780
35531 15	Veneer and plywood-making; wood box and crate-making machinery..	.....	(X)	13,828	(X)	7,954
35531 62	Sawing machines (except sawmill equipment and chain saws):					
	Quantity reported.....	No. of units..	22,774	9,415	39,635	10,744
	Quantity not reported.....	.....	(X)	1,878	-	-
35531 67	Chain saws.....	No. of units..	392,766	45,963	329,164	43,867
35531 71	Jointers, matchers, molders, mortisers, shapers, and tenoners (except power-driven hand-held tools).....	.....	(NA)	11,326	(NA)	8,221
35531 81	Parts, attachments, and accessories for woodworking machinery (sold separately).....	.....	(X)	53,769	(X)	38,521
35531 98	Other woodworking machinery (except power-driven hand-held tools), including lathes, planing machines, and surfacing machines, except hand-held, n.s.k.....	.....	(X)	25,662	(X)	12,515
35531 00	Woodworking machinery (except machinery designed primarily for home workshops, garages, and service shops), including parts, attachments, and accessories.....	.....	(X)	1,748	(X)	7,476
35532 --	Woodworking machinery (designed primarily for home workshops, garages, and service shops) (excluding power-driven hand tools), total	.....	(X)	28,990	(X)	25,685
35532 21	Saws, including circular:					
	Quantity reported.....	No. of units..	196,953	17,555	249,251	14,439
	Quantity not reported.....	.....	(X)	1,969	-	-
35532 81	Parts, attachments, and accessories for machine tools and wood-working machines designed primarily for home workshops, etc. (sold separately) (except parts for power-driven hand tools)...	.....	(X)	3,595	(X)	3,116
35532 98	Other machine tools and woodworking machines designed primarily for home workshops, etc. (except power-driven hand tools), including lathes, drilling machines, jointers, planers and shapers	.....	(X)	5,871	(X)	6,693
35532 00	Woodworking machinery (designed primarily for home workshops, garages, and service shops) (excluding power-driven hand tools), n.s.k.....	.....	(X)	-	(X)	1,437
35530 00	Woodworking machinery, n.s.k.....	.....	(X)	5,845	(X)	3,726
3554- --	PAPER-INDUSTRIES MACHINERY, TOTAL.....	.....	(X)	347,552	(X)	280,106
35540 11	Pulp- and paper-industries machinery (new):					
	Wood preparation equipment (including barkers, chippers, knotters, splitters, chipscreens, etc.).....	.....	(X)	2,170	(X)	1,826
35540 21	Pulp mill machinery:					
35540 25	Grinders.....	No. of units..	325	7,431	99	2,879
35540 29	Deckers, thickeners, wet lap machines, bleaching equipment, pulp screens, washers, and savealls.....	.....	(X)	21,022	(X)	18,564
	Other pulp mill machinery including digesters and recovery room equipment.....	.....	(X)	6,216		
35540 31	Paper mill machinery:					
	Beaters, jordans, and other stock preparation.....	.....	(X)	20,329	(X)	15,179
35540 41	Paper machines:					
35540 45	Fourdriniers including yankee machines.....	No. of units..	45	49,519	39	63,201
35540 43	Calenders including super calenders.....	...do.....	49	5,999	10	2,131
35540 49	Cylinders.....	.....	(X)	41,802	(X)	38,600
	Other paper machinery, including forming and finishing machinery, but excluding calenders.....	.....				
35540 51	Paper and paperboard converting equipment:					
35540 52	Bagmaking machines including shipping sack machines.....	No. of units..	817	9,007	1,236	13,334
35540 53	Envelope making machines.....	...do.....				
35540 54	Corrugated boxmaking machines.....	...do.....	1,234	24,696	1,265	17,634
35540 56	Box, carton, and shipping container making machines (except corrugated box machines).....	...do.....	1,025	13,080	840	6,850
35540 59	Toilet roll and napkin making machines.....	...do.....	129	7,012	125	3,230
	Other paper and paperboard converting equipment, including drum, can, and tube making machines.....	.....	(X)	32,890	(X)	19,025
35540 71	Rebuilt pulp- and paper-industries machinery:					
35540 75	Rebuilt paper machines including fourdriniers, yankees, cylinders, and forming machines.....	.....	(X)	51,126	(X)	16,872
	Other rebuilt pulp- and paper-industries machinery.....	.....	(X)	1,973	(X)	3,257
35540 81	Parts and attachments for pulp mill, paper mill, and paper converting machinery and equipment (sold separately).....	.....	(X)	44,851	(X)	43,329
35540 00	Paper-industries machinery, n.s.k.....	.....	(X)	8,429	(X)	14,195

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3555- --	PRINTING TRADES MACHINERY AND EQUIPMENT, TOTAL.....	.....	(X)	403,215	(X)	273,301
35551 --	Printing presses, total.....	.....	(X)	137,602	(X)	94,200
	Presses:					
	Letterpress (typographical, relief):					
	Sheet-fed:					
35551 11	Platen.....	No. of complete presses.....	682	2,212	1,131	3,899
35551 12	High speed cylinder (job) up to and including 22" by 28", including verticals.....	..do.....				
35551 13	Cylinder presses over 22" by 28".....	..do.....				
35551 15	Rotary letterpress.....	..do.....	39	1,984	152	6,533
	Roll or web-fed:					
35551 18	Rotary letterpress.....	..do.....	235	29,754		82
35551 19	Newspaper high-speed rotary and flat-bed and high-speed platen.....	..do.....			229	
	Offset lithographic:					
	Sheet-fed:					
	Single color:					
35551 23	Up to and including 23" by 30".....	..do.....	535	7,343	831	22,736
35551 26	Over 23" by 30".....	..do.....	121	3,604		
35551 27	Multicolor.....	..do.....	275	27,837		
	Web-fed:					
35551 30	Publication (newspaper, etc.) type.....	..do.....	358	31,653	203	10,723
35551 31	All other.....	..do.....	165	9,676		
35551 32	Gravure, sheet-fed and web-fed.....	..do.....	42	6,563		
35551 41	Other printing presses, including proof and rebuilt.....		(NA)	15,439	(NA)	10,355
35551 00	Printing presses, n.s.k.....	.....	(X)	740	(X)	-
35552 --	Other printing trades machinery, including parts and attachments, total.....	.....	(X)	243,848	(X)	155,662
	Typesetting machinery and equipment (excluding justifying typewriters):					
35552 55	Matrices, including matrices for hot metal machines and photo typesetting.....	.....	(X)	17,783	(X)	13,284
35552 52	Photographic typesetting machines.....	No. of units...	3,189	13,347	(NA)	21,084
35552 53, 59	Typesetting and typecasting machines, including hot metal (excluding photographic) and other typesetting equipment, including tape perforators, operating units, etc., but excluding cameras.....	.....	(X)	29,159		
35552 61	Electrotyping machinery and equipment.....	.....	(X)	7,708		
35552 63	Stereotyping machinery and equipment.....	.....	(X)		(X)	3,829
35552 65	Photoengraving and lithographing platemaking equipment (except cameras).....	.....	(X)	5,836	(X)	4,599
35552 66	Paper cutting machines.....	.....	(X)	7,681	(X)	19,912
35552 68	Bookbinding machinery and equipment, including folding, gathering, inserting, ruling, etc. (exclude paper cutting machines)...	.....	(X)	21,787		
35552 69	Engravers' materials and equipment, including metal plates, wood blocks, lithographic stones, etc.....	.....	(X)	11,138		
	Other printing machinery and equipment, including parts, attachments and accessories for printing trades machinery and equipment (sold separately):					
35552 72	Ink rollers and printers' rolls and platens.....	.....	(X)	28,192	(X)	20,403
35552 75	Foundry type, rules, leads, slugs, borders, and ornaments.....	.....	(X)	4,510	(X)	4,524
35552 81	Parts, attachments, and accessories for printing trades machinery and equipment (sold separately).....	.....	(X)	42,177	(X)	33,830
35552 98	Other printing machinery and equipment.....	.....	(X)	52,681	(X)	26,214
35552 00	Other printing trades machinery, including parts and attachments, n.s.k.....	.....	(X)	1,849	(X)	-
35550 00	Printing trades machinery and equipment, n.s.k.....	.....	(X)	21,765	(X)	23,439
3559- --	SPECIAL INDUSTRY MACHINERY, TOTAL.....	.....	(X)	988,355	(X)	726,212
35591 11	Chemical manufacturing industries machinery and equipment and parts.....	.....	(X)	152,371	(X)	118,458
35592 --	Foundry machinery and equipment, excluding patterns and molds, total.....	.....	(X)	89,569	(X)	52,639
35592 31	Molding machines.....	No. of units...	1,240	15,523	1,261	13,693
35592 51	Blast cleaning equipment.....	.....	(X)	22,894		
35592 98	Other foundry machinery, including core-making machines and parts for foundry machinery and equipment.....	.....	(X)	50,683		
35592 00	Foundry machinery and equipment, excluding patterns and molds, n.s.k.....	.....	(X)	469	(X)	2,427

See footnotes at end of table.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
	SPECIAL INDUSTRY MACHINERY, TOTAL—Continued					
35593 --	Plastics-working machinery and equipment, excluding patterns and molds, total.....		(X)	137,082	(X)	50,818
35593 11	Compression molding machines.....	No. of units...	795	4,761	203	2,502
35593 31	Extrusion molding machines.....	...do.....	1,062	18,576	549	7,407
35593 51	Injection molding machines.....	...do.....	2,511	54,827	829	20,416
35593 98	Other plastics-working machinery and equipment, including parts for plastics-working machinery.....		(X)	58,488	(X)	16,894
35593 00	Plastics-working machinery and equipment, excluding patterns and molds, n.s.k.....		(X)	430	(X)	3,599
35594 --	Rubber-working machinery and equipment,excluding tire molds, total.....		(X)	76,759	(X)	53,870
35594 11	Banbury and mill-mixing machinery and warming-up machinery.....		(X)	8,328	(X)	8,335
35594 31	Extruding machines.....	No. of units...	378	3,615	(S)	4,017
35594 41	Vulcanizing presses.....	...do.....	969	19,177	556	9,828
35594 51	Tire-building equipment (except tire molds).....		(X)	7,477	(X)	5,987
35594 71	Tire recapping and repairing machinery and equipment, including recapping vulcanizers.....		(X)	15,422	(X)	15,038
35594 98	Other rubber-working machinery including calendering machines and parts for rubber-working machinery, but excluding tire molds.....		(X)	21,621	(X)	6,255
35594 00	Rubber-working machinery and equipment, exeluding tire molds, n.s.k.....		(X)	1,119	(X)	4,410
35595 --	Other special industry machinery and equipment, total <sup>8</sup> .....		(X)	500,225	(X)	414,691
35595 11	Petroleum refinery machinery and equipment, including parts.....		(X)	36,466	(X)	20,672
	Tobacco manufacturing machinery and equipment:					
35595 31	Cigarette-making machines and cigar-making machines.....	No. of units... }	762	5,301	(X)	14,895
35595 33	Cigar, cigarette and tobacco packaging and wrapping machines..	...do.....				
35595 39	Other tobacco manufacturing machinery and equipment and parts.....		(X)	7,679		
35595 41	Clayworking machinery and equipment and parts (brick, tile, and ceramics).....		(X)	11,436	(X)	10,575
35595 43	Cement-making machinery and equipment and parts, other than cement kilns.....		(X)	8,537	(X)	3,827
	Concrete-products machinery and equipment:					
35595 45	Concrete-block machines.....	No. of units...	345	5,358	(NA)	6,660
35595 49	Other concrete-products machinery and equipment and parts, including concrete-pipe making machines.....		(X)	27,819	(X)	16,434
	Glass-making machinery and equipment:					
35595 51	Bottle-forming machines.....	No. of units...	229	10,760	(NA)	10,938
35595 55	Other glass-making machinery and equipment and parts except lehrs.....		(X)	25,159	(X)	10,504
35595 62	Shoemaking and repairing machinery and equipment and parts, including sole stitching machines.....		(X)	26,798	(X)	24,174
35595 73	Cotton-ginning machinery and equipment and parts.....		(X)	41,088	(X)	40,987
35595 81	Metal cleaning, degreasing, finishing, and drying machinery and equipment and parts.....		(X)	47,240	(X)	27,446
35595 85	Electronic tube-making machinery and equipment and parts.....		(X)	9,109	(X)	7,969
35595 89	Other special industrial machinery and equipment and parts (including incadescent lamp-making, paint making, stone-working, hatmaking, leatherworking, jewelers', pharmaceutical, ammunition and explosives loading machinery and equipment, etc.).....		(X)	171,280	(X)	187,636
35595 91	Electric nonmetallic processing industrial furnaces and ovens, including kilns and lehrs.....		(X)	8,980	(X)	2,485
35595 92	Fuel fired kilns (cement, wood, and chemical processing).....	No. of units...	380	21,949	(NA)	14,606
35595 93	Other nonmetallic processing industrial furnaces and ovens and parts, including kilns and lehrs.....		(X)	10,495	(X)	4,859
35595 00	Other special industry machinery and equipment, n.s.k.....		(X)	24,771	(X)	10,024
35590 00	Special industry machinery, n.s.k.....		(X)	32,349	(X)	35,736

- Represents zero. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

(X) Not applicable.

<sup>1</sup>Figures for "Butter, cheese, dry milk and ice cream packaging machines" and "Uncasers and casers" are included with "Other dairy and milk products processing plant machinery and equipment."

<sup>2</sup>Includes power-driven machines for use by hotels, restaurants, institutions, meat markets, butcher shops, food-product stores, and similar commercial organizations.

<sup>3</sup>For combination slicing and wrapping machines the number and value of slicing units are included with slicing machines and the number and value of wrapping units with wrapping machines.

<sup>4</sup>For 1958 "Labeling machines" are included with "Other food bottling machinery, except dairy."

<sup>5</sup>Figures for "Uncasers and casers" are included with "Carbonators and other food bottling machinery, except dairy."

<sup>6</sup>Data for combing machines (product code 3552132) are included with data for other fiber-to-fabric machinery (product code 3552155).

<sup>7</sup>Data for power looms (product codes 3552164 and 3552168) are included with data for other fabric machinery (product code 3552184).

<sup>8</sup>Some equipment in this product class may be leased rather than sold outright. For leased equipment, estimates of the value of products produced were reported. These estimates approximate the value of the products had they been sold outright and are based on market values of the products, tax or insurance valuations, etc.

TABLE 6B. **Product Classes—Indexes of Production and Unit Value for Primary Products, Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
355	Special industry machinery <sup>1</sup> .....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
3551	Food products machinery <sup>1</sup> .....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
35512	Commercial food products machinery.....1963..	98	136
	.....1958..	98	117
3552	Textile machinery <sup>1</sup> .....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
35521	Textile machinery.....1963..	134	131
	.....1958..	83	120
3553	Woodworking machinery.....1963..	111	119
	.....1958..	99	108
3554	Paper industries machinery.....1963..	202	98
	.....1958..	144	111
3555	Printing trades machinery.....1963..	141	123
	.....1958..	118	100
3559	Special industry machinery <sup>1</sup> .....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
35593	Plastics-working machinery and equipment.....1963..	287	126
	.....1958..	97	139

<sup>1</sup>Not shown pending further review of data covering product classes for which indexes are not shown.



TABLE 6C. **Product Classes—Value Shipped by All Manufacturing Establishments, 1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3551-	Food products machinery.....	517,304	500,739	460,586	458,197	435,935	399,846	371,408	335,928
35511	Dairy and milk products plant machinery and equipment.....	71,589	67,242	60,617	59,101	61,193	64,611	81,267	62,060
35512	Commercial food-products machinery.....	117,638	118,415	118,838	123,670	113,371	100,980	88,158	82,256
35513	Other industrial food products machinery, including parts and attachments.....	300,481	284,697	257,338	251,198	234,234	210,790	197,517	191,612
35510	Food products machinery, n.s.k.....	27,596	(S)	(S)	(S)	(S)	23,465	4,466	-
3552-	Textile machinery.....	499,096	532,027	488,523	493,662	399,592	322,239	304,053	391,829
35521	Textile machinery.....	252,569	282,803	264,722	269,600	200,665	143,720	143,315	245,984
35522	Parts and attachments for textile machinery	232,122	218,270	205,272	205,710	184,476	168,737	160,738	141,456
35520	Textile machinery, n.s.k.....	14,405	(S)	(S)	(S)	(S)	9,782	-	4,389
3553-	Woodworking machinery.....	220,822	203,335	171,362	179,110	186,980	174,489	163,431	151,379
35531	Woodworking machines (except home workshop) including parts and attachments.....	185,987	174,054	141,845	151,415	154,699	145,078	136,208	128,853
35532	Woodworking machines for home workshop, including parts and attachments.....	28,990	28,646	28,374	27,086	28,432	25,685	27,223	22,526
35530	Woodworking machines, n.s.k.....	5,845	(S)	(S)	(S)	(S)	3,726	-	-
35540	Paper industries machinery.....	347,552	369,810	333,801	348,447	299,676	280,106	176,172	134,713
3555-	Printing trades machinery.....	403,215	399,518	365,566	352,740	301,912	273,301	228,774	195,112
35551	Printing presses.....	137,602	149,972	127,655	122,600	105,963	94,201		
35552	Other printing trades machinery including parts and attachments.....	243,848	217,481	209,792	204,879	167,386	155,662		
35550	Printing-trades machinery, n.s.k.....	21,765	(S)	(S)	(S)	(S)	23,939		
3559-	Special industry machinery.....	988,355	1,002,688	910,824	924,476	797,518	726,212	604,535	462,202
35591	Chemical manufacturing industries machinery	152,371	129,848	141,829	137,339	104,518	118,458	102,794	87,375
35592	Foundry machinery.....	89,569	75,886	59,460	69,811	60,509	52,639	62,480	34,431
35593	Plastics-working machinery.....	137,082	113,302	91,276	91,264	80,118	50,818	37,610	19,666
35594	Rubber-working machinery.....	76,759	87,845	80,432	90,350	66,314	53,870	52,521	46,445
35595	Other special-industrial machinery.....	500,225	565,768	512,428	512,025	456,546	414,691	319,968	226,133
35590	Special industrial machinery, n.s.k.....	32,349	(S)	(S)	(S)	(S)	35,736	10,269	25,674

- Represents zero. n.s.k. Not specified by kind.

(S) Withheld because data did not meet publication standards on the basis of consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
DAIRY AND MILK PRODUCTS PLANT MACHINERY AND EQUIPMENT (35511)			OTHER INDUSTRIAL FOOD PRODUCTS MACHINERY (35513)—Continued			WOODWORKING MACHINERY (EXCEPT HOME WORKSHOPS) (35531)—Continued		
United States, total.....	71,589	64,611	West North Central.....	22,620	20,889	Middle Atlantic.....	9,161	6,850
New England.....	1,491	1,689	Minnesota.....	2,395	4,210	Pennsylvania.....	5,024	3,377
Middle Atlantic.....	8,644	12,539	Iowa.....	6,218	4,891	East North Central.....	57,354	44,523
New York.....	5,148	10,834	Missouri.....	9,998	7,017	Ohio.....	10,583	7,080
Pennsylvania.....	3,465	(Z)	South Atlantic.....	34,049	20,833	Indiana.....	3,874	2,176
East North Central.....	40,152	33,163	Maryland.....	14,521	10,642	Illinois.....	23,347	17,619
Illinois.....	15,796	8,495	Virginia.....	2,427	(Z)	Michigan.....	8,428	6,615
Wisconsin.....	12,334	13,257	North Carolina.....	2,412	(Z)	Wisconsin.....	11,122	11,033
West North Central.....	11,621	12,975	Georgia.....	9,846	5,112	West North Central.....	7,066	3,128
South.....	3,016	2,693	Florida.....	4,843	4,394	Minnesota.....	4,715	( <sup>2</sup> )
West.....	6,665	1,552	East South Central.....	5,582	1,966	Missouri.....	2,351	( <sup>2</sup> )
COMMERCIAL FOOD PRODUCTS MACHINERY (35512)			West South Central.....	12,579	4,198	South Atlantic.....	32,746	19,374
United States, total.....	117,638	100,980	Louisiana.....	1,854	1,380	Georgia.....	2,094	( <sup>2</sup> )
New England.....	5,649	7,902	Texas.....	9,695	1,478	East South Central.....	9,793	11,119
Massachusetts.....	3,040	( <sup>2</sup> )	Mountain.....	5,217	2,267	Tennessee.....	2,433	2,867
Middle Atlantic.....	20,289	15,303	Pacific.....	32,821	26,158	Alabama.....	1,904	( <sup>2</sup> )
New York.....	11,014	5,748	Washington.....	1,852	1,165	Mississippi.....	5,456	( <sup>2</sup> )
New Jersey.....	1,557	1,727	California.....	27,792	24,209	West South Central.....	5,692	3,098
Pennsylvania.....	7,718	7,828	TEXTILE MACHINERY (35521)			West.....	59,350	44,024
East North Central.....	65,775	56,550	United States, total.....	252,569	143,720	Oregon.....	21,380	13,355
Ohio.....	27,952	20,665	New England.....	100,826	70,788	PRINTING PRESSES (35551)		
Indiana.....	7,785	5,882	Massachusetts.....	74,378	33,519	United States, total.....	137,602	94,201
Illinois.....	11,777	15,101	Rhode Island.....	15,216	10,580	New England.....	14,705	7,530
Michigan.....	15,072	11,633	Middle Atlantic.....	57,809	35,032	Middle Atlantic.....	31,794	37,607
Wisconsin.....	3,189	3,269	New York.....	14,123	9,168	New York.....	12,419	( <sup>2</sup> )
West North Central.....	7,982	6,934	New Jersey.....	10,699	6,687	New Jersey.....	9,859	17,441
Minnesota.....	2,333	1,376	Pennsylvania.....	32,987	19,177	Pennsylvania.....	9,516	( <sup>2</sup> )
Missouri.....	3,507	2,853	North Central.....	11,551	9,173	North Central.....	80,700	49,064
South Atlantic.....	6,438	4,318	South and West.....	82,383	28,727	Wisconsin.....	3,220	
East South Central.....	1,288	1,575	North Carolina.....	34,481	13,344	East South Central.....	5,444	
West South Central.....	2,316	1,568	South Carolina.....	32,735	7,428	West.....	4,959	
Texas.....	1,999	( <sup>2</sup> )	Georgia.....	9,829	3,886	OTHER PRINTING TRADES MACHINERY, INCLUDING PARTS AND ATTACHMENTS (35552)		
West.....	7,901	6,830	PARTS AND ATTACHMENTS FOR TEXTILE MACHINERY (35522)			United States, total.....	243,848	155,662
California.....	6,614	5,546	U.S. total.....	232,122	168,737	New England.....	26,188	14,830
OTHER INDUSTRIAL FOOD PRODUCTS MACHINERY (35513)			New England.....	93,547	75,009	Massachusetts.....	16,430	9,209
United States, total.....	300,481	210,790	Maine.....	1,726	7,169	Connecticut.....	7,515	( <sup>2</sup> )
New England.....	31,988	24,706	Vermont.....	1,298	1,802	Middle Atlantic.....	112,118	78,809
Massachusetts.....	22,931	17,882	Massachusetts.....	61,356	49,532	New York.....	63,626	47,787
Middle Atlantic.....	46,418	39,886	Rhode Island.....	20,593	8,349	New Jersey.....	28,104	19,161
New York.....	22,580	20,476	Middle Atlantic.....	43,373	33,653	Pennsylvania.....	20,388	11,861
New Jersey.....	7,020	3,081	New York.....	3,575	2,752	East North Central.....	73,151	49,221
Pennsylvania.....	16,818	16,329	New Jersey.....	12,162	10,409	Ohio.....	20,100	15,001
East North Central.....	109,207	69,887	Pennsylvania.....	27,636	20,492	Illinois.....	40,697	28,492
Ohio.....	31,260	15,730	North Central.....	14,269	6,088	Michigan.....	8,396	4,384
Indiana.....	6,776	4,854	South and West.....	80,933	53,987	Wisconsin.....	3,785	( <sup>2</sup> )
Illinois.....	41,945	27,512	North Carolina.....	30,822	20,316	West North Central.....	11,471	2,341
Michigan.....	4,940	3,502	South Carolina.....	38,279	23,519	Missouri.....	8,206	(Z)
Wisconsin.....	24,284	18,289	Georgia.....	7,906	7,677	South.....	12,442	5,903
WOODWORKING MACHINERY (EXCEPT HOME WORKSHOPS) (35531)			WOODWORKING MACHINERY (EXCEPT HOME WORKSHOPS) (35531)			Pacific.....	8,478	4,558
United States, total.....	185,987	145,078	United States, total.....	185,987	145,078	California.....	7,784	4,468
New England.....	4,825	12,962	New England.....	4,825	12,962			
Massachusetts.....	3,265	5,863	Massachusetts.....	3,265	5,863			

See footnotes at end of table.



TABLE 6D. **Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued**

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments 1963 <sup>1</sup>
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		
CHEMICAL MANUFACTURING INDUSTRIES MACHINERY AND EQUIPMENT (35591)			PLASTICS-WORKING MACHINERY AND EQUIPMENT EXCLUDING PATTERNS AND MOLDS (35593)			OTHER SPECIAL INDUSTRY MACHINERY AND EQUIPMENT (35595)	
United States, total.....	152,371	118,458	United States, total.....	137,082	50,818	United States, total.....	500,225
New England.....	8,691	7,907	New England.....	43,914	18,203	New England.....	61,574
Middle Atlantic.....	67,689	56,507	Massachusetts.....	14,244	6,918	Maine.....	2,565
New York.....	25,222	19,946	Connecticut.....	16,484	6,333	Massachusetts.....	43,300
New Jersey.....	17,652	11,522	Middle Atlantic.....	36,024	12,189	Connecticut.....	12,904
Pennsylvania.....	24,815	25,039	New York.....	4,776	3,195	Middle Atlantic.....	134,281
North Central.....	44,285	31,355	New Jersey.....	24,695	6,665	New York.....	33,088
Ohio.....	23,531	16,228	Pennsylvania.....	6,553	2,331	New Jersey.....	44,565
Illinois.....	12,960	10,530	North Central.....	52,485	18,733	Pennsylvania.....	56,628
Michigan.....	5,456	3,488	Ohio.....	34,455	14,285	East North Central.....	159,297
South and West.....	31,706	22,689	Michigan.....	5,354	1,637	Ohio.....	33,281
California.....	2,228	3,167	Wisconsin.....	2,030	(Z)	Indiana.....	16,698
			South and West.....	4,661	(2)	Illinois.....	42,065
			California.....	1,949	1,208	Michigan.....	51,246
						Wisconsin.....	16,007
FOUNDRY MACHINERY AND EQUIPMENT, EXCLUDING PATTERNS AND MOLDS (35592)			RUBBER-WORKING MACHINERY AND EQUIPMENT, EXCLUDING TIRE MOLDS (35594)			West North Central.....	23,823
United States, total.....	89,569	52,639	United States, total.....	76,759	54,095	Minnesota.....	7,935
Northeast.....	9,078	4,098	Northeast.....	15,340	13,938	Iowa.....	6,003
Pennsylvania.....	7,809	3,353	New York.....	2,163	(Z)	Kansas.....	4,957
North Central.....	63,723	38,137	Pennsylvania.....	3,204	2,439	South Atlantic.....	27,329
Ohio.....	18,913	8,442	East North Central.....	49,760	27,056	Maryland.....	5,074
Illinois.....	16,514	13,282	Ohio.....	46,558	23,526	North Carolina.....	7,405
Michigan.....	8,735	(2)	West North Central.....	1,076	1,250	Georgia.....	7,015
Wisconsin.....	4,857	3,760	South and West.....	10,583	11,851	Florida.....	1,760
South and West.....	16,768	10,404	California.....	8,232	10,035	East South Central.....	16,086
California.....	3,953	(2)				Kentucky.....	5,601
						West South Central.....	43,389
						Louisiana.....	3,763
						Oklahoma.....	4,056
						Texas.....	35,057
						West.....	34,446
						Washington.....	7,885
						Oregon.....	5,356
						California.....	20,343

(Z) Less than \$1 million reported.

<sup>1</sup>For the specific product classes, shipments of \$1 million or more were reported for the states listed, but the exact figures are withheld to avoid disclosures of individual company figures: 35511, Ohio, Michigan, Minnesota, Iowa, Missouri, and Virginia; 35512, Connecticut, Kansas, Virginia, Georgia, and Kentucky; 35513, Connecticut, Kansas, Kentucky, Colorado, and Oregon; 35521, Maine, New Hampshire, Ohio, Illinois, and Tennessee; 35522, New Hampshire, Ohio, Illinois, Michigan, and Tennessee; 35531, New Hampshire, New York, New Jersey, North Carolina, South Carolina, Louisiana, Texas, Washington, and California; 35551, New Hampshire, Massachusetts, Connecticut, Ohio, Illinois, Michigan, Missouri, Kansas, Kentucky, Texas, New Mexico, and California; 35552, Rhode Island, Kansas, Virginia, North Carolina, and Kentucky; 35591, Massachusetts, Connecticut, Delaware, Maryland, Virginia, North Carolina, Kentucky, Tennessee, and Texas; 35592, Indiana and Maryland; 35593, New Hampshire and Indiana; 35594, Connecticut, New Jersey, Indiana, and North Carolina; 35595, Rhode Island, Missouri, Delaware, Virginia, and Alaska.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3551.—FOOD PRODUCTS MACHINERY			
	Materials, parts, containers, and supplies, total.....		(X)	204,807	(X)	152,418
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	26,494	6,713	30,574	4,738
331012	Sheet and strip.....	do.....	35,337	5,927	31,214	4,466
331013	Plates.....	do.....	18,427	2,906	21,940	2,338
331015	Structural shapes.....	do.....	12,227	2,159	7,245	1,303
331019	All other carbon steel mill shapes and forms.....	do.....	6,420	2,059	2,685	748
331020	Alloy steel (except stainless).....	do.....	4,061	1,583	3,685	1,579
331031	Stainless steel.....	do.....	10,393	13,183	8,315	11,448
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	491	281	1,995	563
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	77	48		
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	688	370	1,314	989
335123	Plate, sheet, and strip (including military cups and discs)....	do.....	207	129		
335127	Pipe and tube.....	do.....	950	698		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	do.....	2,167	1,189	2,236	1,244
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	do.....	686	400	251	217
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	do.....	799	417		
	Castings (rough and semi-finished): <sup>1</sup>					
332011	Iron (gray and malleable).....	Short tons.....	23,567	9,627	18,357	6,726
332300	Steel.....	do.....	5,294	3,798	7,668	2,209
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	3,984	3,371	2,849	2,252
336200	Copper and copper-base alloy.....	do.....	2,080	1,557	2,900	2,206
	Electrical motors and generators:					
362115	Fractional horsepower electric motors (under 1 hp.) (excluding timing motors).....	Number.....	85,678	3,033	66,085	2,042
362120	Integral horsepower motors and generators (1 hp. and over).....	do.....	51,251	8,745	24,421	5,028
	Bearings:					
356218	Ball.....		(X)	2,279	(X)	1,835
356228	Roller.....		(X)	1,818		
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	89,905	(X)	72,098
976000	Materials, etc., n.s.k. <sup>2</sup> .....		(X)	42,612	(X)	28,389
			INDUSTRY 3552.—TEXTILE INDUSTRIES MACHINERY			
	Materials, parts, containers, and supplies, total.....		(X)	209,812	(X)	136,984
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	41,487	10,080	29,473	6,982
331012	Sheet and strip.....	do.....	24,379	5,391	16,621	3,574
331015	Structural shapes.....	do.....	9,526	1,914	8,067	1,457
331017	Wire and wire products.....	do.....	5,965	4,992	5,132	3,611
331019	All other carbon steel mill shapes and forms.....	do.....	3,190	1,306	5,541	1,402
331020	Alloy steel (except stainless).....	do.....	2,127	1,149	2,555	1,423
331031	Stainless steel.....	do.....	2,653	4,792	1,769	2,823
	Copper and copper-alloy:					
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	190	152	(NA)	(NA)
335790	Insulated wire and cable.....	1,000 lbs. (copper content)				
335102	Rod, bar, and mechanical wire (including extruded and/or drawn shapes.....	1,000 lbs.....	710	335	(NA)	(NA)
335123	Plate, sheet, and strip (including military cups and discs)....	do.....	1,127	617	(NA)	(NA)
335127	Pipe and tube.....	do.....	1,226	851	(NA)	(NA)
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	do.....	1,156	857	2,110	643
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	do.....	1,446	1,099	1,541	825
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	do.....	1,619	943		

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3552.—TEXTILE-INDUSTRIES MACHINERY—Continued			
331051	Primary metal and scrap:					
999811	Pig iron excluding silvery iron.....	Short tons.....	21,449	1,436	16,961	1,074
	Iron and steel scrap (excluding home scrap).....	..do.....	17,589	1,063	12,059	515
332011	Castings (rough and semi-finished): <sup>1</sup>					
336100	Iron (gray and malleable).....	..do.....	57,548	22,006	25,351	9,108
	Aluminum and aluminum-base alloy.....	1,000 lbs.....	2,105	1,943	1,555	1,370
362120	Integral horsepower electric motors and generators (1 hp. and over) <sup>1</sup> .....	Number.....	24,992	4,433	17,124	2,483
356218	Bearings:					
356228	Ball.....	.....	(X)	5,528	(X)	3,188
	Roller.....	.....	(X)	894		
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	116,664	(X)	84,936
976000	Materials, etc., n.s.k. <sup>2</sup> .....	.....	(X)	21,367	(X)	11,570
			INDUSTRY 3553.—WOODWORKING MACHINERY			
	Materials, parts, containers, and supplies, total.....	.....	(X)	94,429	(X)	76,883
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	19,343	4,399	9,095	2,273
331012	Sheet and strip.....	..do.....	17,669	4,674	11,914	2,131
331013	Plates.....	..do.....	10,284	1,890	9,288	1,044
331019	All other carbon steel mill shapes and forms.....	..do.....	4,722	1,515	5,818	1,193
331020	Alloy steel (except stainless).....	..do.....	3,110	2,685	2,497	1,488
331031	Stainless steel.....	..do.....	173	602	102	121
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	162	161	94	116
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	36	40	118	94
335102	Rod, bar, and mechanical wire including extruded and/or drawn shapes.....	1,000 lbs.....	126	208	95	176
335123	Plate, sheet, and strip (including military cups and discs).....	..do.....				
335127	Pipe and tube.....	..do.....				
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	..do.....	60	116	74	49
335205	Extruded shapes (including extruded rod, bar, pipe, tube; etc.).....	..do.....	300	327	746	298
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	..do.....	916	446		
332011	Castings (rough and semi-finished): <sup>1</sup>					
332300	Iron (gray and malleable).....	Short tons.....	12,038	4,361	11,221	3,492
336100	Steel.....	..do.....	1,829	1,530	2,128	1,251
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	2,835	3,324	4,717	1,886
336200	Copper and copper-base alloy.....	..do.....	174	189	101	576
339100	Iron and steel forgings.....	Short tons.....	1,265	1,370	479	882
	Electric motors and generators:					
	Fractional horsepower electric motors (under 1 hp.):					
362110	Timing motors, synchronous and sub-synchronous.....	Number.....	4,604	65	3,818	88
362115	Other fractional horsepower electric motors (under 1 hp.) (excluding timing motors).....	..do.....	6,929	235	33,016	1,080
362120	Integral horsepower motors and generators (1 hp. and over).....	..do.....	38,926	2,901	7,336	1,572
356218	Bearings:					
356228	Ball.....	.....	(X)	1,711	(X)	1,738
	Roller.....	.....	(X)	788		
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	45,222	(X)	46,975
976000	Materials, etc., n.s.k. <sup>2</sup> .....	.....	(X)	15,670	(X)	8,360

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3554.—PAPER INDUSTRIES MACHINERY			
	Materials, parts, containers, and supplies, total.....		(X)	165,618	(X)	133,212
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and shapes.....	Short tons.....	19,848	4,847	9,353	2,241
331013	Plates.....	..do.....	21,866	3,691	11,129	1,896
331019	All other carbon steel mill shapes and forms.....	..do.....	7,212	1,990	12,347	5,842
331020	Alloy steel (except stainless).....	..do.....	2,386	1,090	3,169	1,530
331031	Stainless steel.....	..do.....	5,185	9,654	3,757	6,710
335728	Copper and copper-base alloy:					
335790	Bare wire (for electrical conduction).....	1,000 lbs.....	(D)	(D)	3,436	4,736
	Insulated wire and cable.....	1,000 lbs. (copper content)	(D)	(D)		
335102	Rod, bar, and mechanical wire including extruded and/or drawn shapes.....	1,000 lbs.....	2,293	3,255		
335123	Plate, sheet, and strip (including military cups and discs).....	..do.....	1,157	2,240		
335127	Pipe and tube.....	..do.....	596	323		
335202	Aluminum and aluminum-base alloy:					
335205	Sheet, plate, and foil.....	..do.....	442	299	(NA)	(NA)
335209	Extruded shapes (including extruded rod, bar, pipe, tube, etc.).....	..do.....				
	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	..do.....				
331051	Primary metals and scrap:					
999811	Pig iron, excluding silvery iron.....	Short tons.....	50,442	2,884	58,741	3,647
	Iron and steel scrap (excluding home scrap).....	..do.....	13,906	986	17,516	1,116
332011	Castings (rough and semi-finished): <sup>1</sup>					
332300	Iron (gray malleable).....	..do.....	15,558	6,250	24,996	9,900
336100	Steel.....	..do.....	2,939	2,615	2,729	2,408
336200	Aluminum and aluminum-base alloy.....	1,000 lbs.....	452	465	(NA)	(NA)
	Copper and copper-base alloy.....	..do.....	1,191	778	978	750
362120	Integral horsepower electric motors and generators (1 hp. and over)	Number.....	8,344	5,433	8,924	5,190
356218	Bearings:					
356228	Ball.....		(X)	3,220	(X)	3,415
	Roller.....		(X)	905		
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	103,250	(X)	77,816
973000	Materials, etc., n.s.k. <sup>2</sup> .....		(X)	11,443	(X)	6,015
			INDUSTRY 3555.—PRINTING TRADES MACHINERY			
	Materials, parts, containers, and supplies, total.....		(X)	123,152	(X)	82,552
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	18,215	5,057	(NA)	(NA)
331012	Sheet and strip.....	..do.....	2,401	527	(NA)	(NA)
331013	Plates.....	..do.....	2,530	642	(NA)	(NA)
331015	Structural shapes.....	..do.....	1,736	449	(NA)	(NA)
331017	Wire and wire products.....	..do.....	(NA)	37	(NA)	(NA)
331019	All other carbon steel mill shapes and forms.....	..do.....	1,834	807	(NA)	(NA)
331021	Alloy steel (except stainless):					
331029	Bars and bar shapes.....	..do.....	1,799	776	(NA)	(NA)
	All other alloy steel mill shapes and forms.....	..do.....	442	166	(NA)	(NA)
331031	Stainless steel.....	..do.....	413	904	(NA)	(NA)
335790	Copper and copper-base alloy:					
	Insulated wire and cable.....	1,000 lbs. (copper content)	53	16	(NA)	(NA)
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	395	241	1,511	1,377
335123	Plate, sheet, and strip (including military cups and discs).....	..do.....	2,590	1,255		
335127	Pipe and tube.....	..do.....	200	138		
335202	Aluminum and aluminum-base alloy:					
335205	Sheet, plate, and foil.....	..do.....	3,221	1,623	(NA)	282
335209	Extruded shapes (including extruded rod, bar, pipe, tube, etc.).....	..do.....	649	458		
	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	..do.....	188	149		

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3555.—PRINTING TRADES MACHINERY—Continued			
331051	Primary metals and scrap:					
999811	Pig iron, excluding silvery iron.....	Short tons.....	(D)	(D)	2,223	187
	Iron and steel scrap (excluding home scrap).....	..do.....	1,000	44	2,810	218
332011	Castings (rough and semi-finished): <sup>1</sup>					
	Iron (gray and malleable).....	..do.....	33,214	13,466	25,656	10,302
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	1,945	2,100	1,195	1,303
336200	Copper and copper-base alloy.....	..do.....	718	675	1,005	762
362115	Electrical motors and generators: <sup>1</sup>					
	Fractional horsepower electric motors (under 1 hp.) excluding timing motors.....	Number.....	29,623	1,092	17,002	474
362120	Integral horsepower motors and generators (1 hp. and over).....	..do.....	9,037	4,471	5,775	1,620
356218	Bearings:					
	Ball.....	.....	(X)	1,892	(X)	(NA)
356228	Roller.....	.....	(X)	1,115	(X)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	58,145	(X)	54,110
973000	Materials, containers, supplies, n.s.k. <sup>2</sup> .....	.....	(X)	26,907	(X)	11,590
			INDUSTRY 3559.—SPECIAL INDUSTRY MACHINES, N.E.C.			
	Materials, parts, containers, and supplies, total.....	.....	(X)	355,869	(X)	259,751
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	52,799	11,447	35,466	7,524
331012	Sheet and strip.....	..do.....	34,426	6,326	35,155	6,141
331013	Plates.....	..do.....	73,908	12,670	71,611	11,979
331015	Structural shapes.....	..do.....	23,359	4,268	18,762	3,304
331017	Wire and wire products.....	..do.....	3,764	1,617	3,814	1,170
331019	All other carbon steel mill shapes and forms.....	..do.....	16,354	3,569	7,902	2,260
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	8,663	4,083	4,388	1,605
331029	All other alloy steel mill shapes and forms.....	..do.....	4,535	1,704	2,595	1,513
331031	Stainless steel.....	..do.....	8,204	11,979	7,422	10,886
	Copper and copper-base alloy:					
335728	Bare wire (for electric conduction).....	1,000 lbs.....	559	472	82	107
335790	Insulated wire and cable.....	1,000 lbs. (copper content)			276	264
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....				
335123	Plate, sheet, and strip, (including military cups and discs)....	..do.....	1,501	1,053	4,002	2,892
335127	Pipe and tube.....	..do.....	1,233	865		
			2,028	1,502		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	..do.....	1,856	1,043	1,676	1,185
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	..do.....	1,334	980	1,978	1,799
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	..do.....	2,265	931		
	Primary metals and scrap:					
331051	Pig iron, excluding silvery iron.....	Short tons.....	21,339	1,701	19,092	1,297
999811	Iron and steel scrap (excluding home scrap).....	..do.....	69,525	2,050	39,183	1,383

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3559.—SPECIAL INDUSTRY MACHINES, N.E.C.—Continued			
332011	Castings (rough and semi-finished): <sup>1</sup>					
332300	Iron (gray and malleable).....	Short tons.....	33,358	14,254	24,717	8,230
336100	Steel.....	...do.....	19,815	11,767	14,361	8,224
336200	Aluminum and aluminum-base alloy.....	1,000 lbs.....	3,861	3,299	2,615	2,641
	Copper and copper-base alloy.....	...do.....	1,962	2,005	2,152	1,644
362115	Electrical motors and generators: <sup>1</sup>					
	Fractional horsepower electric motors (under 1 hp.) (excluding timing motors).....	Number.....	53,466	2,124	40,161	1,500
362120	Integral horsepower motors and generators (1 hp. and over).....	...do.....	51,116	11,211	24,197	6,633
	Bearings:					
356218	Ball.....		(X)	3,003	}	(X) 3,824
356228	Roller.....		(X)	2,448		
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	178,360	(X)	139,918
976000	Materials, etc., n.s.k. <sup>2</sup> .....		(X)	59,138	(X)	31,828

(D) Withheld to avoid disclosing figures for individual companies.

(NA) Not available.

n.s.k. Not specified by kind.

(X) Not applicable.

<sup>1</sup>In addition, the following quantities were produced and consumed at the same establishment:

Code	Item	Unit of measure	Industry 3551	Industry 3552		Industry 3553		Industry 3554		Industry 3555	Industry 3559	
			1963	1963	1958	1963	1958	1963	1958	1963	1963	1958
332011	Castings (rough and semi-finished):											
332300	Iron (gray and malleable).....	Short tons	4,871	6,118	2,348	11,118	4,187	31,351	33,491	3,281	12,773	17,135
336100	Steel.....	...do.....	(NA)	(NA)	(NA)	1,191	(NA)	(D)	(NA)	(NA)	134	(NA)
336200	Aluminum and aluminum-base alloy.....	1,000 lbs.	338	419	(NA)	(D)	(NA)	(D)	(NA)	92	1,640	(NA)
	Copper and copper-base alloy.....	...do.....	(D)	(NA)	(NA)	(D)	(NA)	(D)	(NA)	(D)	173	(NA)
362115	Electric motors and generators:											
	Fractional horsepower electric motors (under 1 hp.) (excluding timing motors).....	Number....	(D)	(NA)	(NA)	(D)	(NA)	(NA)	(NA)	533	208	(NA)
362120	Integral horsepower motors and generators (1 hp. and over).....	...do.....	(D)	45	(NA)	(D)	(NA)	(D)	(NA)	(D)	(D)	(NA)

Data for iron and steel forgings and timing motors synchronous and subsynchronous for industry 3553 are withheld to avoid disclosing figures for individual companies.

<sup>2</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested, and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."



TABLE 7B. Fuels and Electric Energy Consumed, and Horsepower Rating of Power Equipment: 1962

Item	Food products machinery (SIC 3551)	Textile machinery (SIC 3552)	Woodworking machinery (SIC 3553)	Paper industries machinery (SIC 3554)	Painting trades machinery (SIC 3555)	Special industry machines, n.e.c. (SIC 3559)
Total cost of purchased fuels and electric energy.....\$1,000..	4,835	5,716	1,816	3,263	3,103	8,513
Total cost of purchased fuels.....do....	1,896	2,750	703	1,404	1,134	3,579
Bituminous coal, lignite, and anthracite:						
Quantity.....1,000 short tons..	(S)	52	(S)	(S)	(S)	13
Cost.....\$1,000..	(S)	571	(S)	(S)	(S)	125
Coke and breeze:						
Quantity.....1,000 short tons..	(S)	4	(S)	(S)	(S)	7
Cost.....\$1,000..	(S)	120	(S)	(S)	(S)	216
Fuel oil (distillate and residual):						
Quantity.....1,000 barrels of 42 gallons..	133	448	28	137	166	316
Cost.....\$1,000..	550	1,419	106	546	671	1,135
Gas (natural, manufactured, still, blast furnace, and coke oven):						
Quantity.....million cu. ft..	829	642	486	650	433	2,232
Cost.....\$1,000..	638	398	307	465	316	1,401
Other fuels.....do....	527	242	61	182	73	702
Electric energy:						
Purchased:						
Quantity.....million kw.-hrs..	155	206	90	136	109	295
Cost.....\$1,000..	2,939	2,966	1,113	1,859	1,969	4,934
Generated less sold.....million kw.-hrs..	(S)	21	-	(S)	-	10
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	138	182	44	122	109	275
Prime movers, total.....do....	8	23	3	11	3	28
Driving generators.....do....	3	18	1	2	2	16
Not driving generators.....do....	5	5	2	9	1	12
Electric motors, total.....do....	130	178	42	112	107	257
Driven by purchased energy.....do....	130	159	42	112	106	246
Driven by energy generated at establishment.....do....	(Z)	19	-	-	1	11
Aggregate horsepower per 100 production workers.....	636	660	484	920	659	809

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

-Represents zero. (Z) Less than 500 hp.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); cost of fuel less than \$50 thousand; quantity of electric energy less than 5 million kw.-hrs.; to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

n.e.c. Not elsewhere classified.

**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3551-	FOOD PRODUCTS MACHINERY										
	Entire industry.....	681	31,684	205,368	21,018	43,276	118,036	380,406	255,278	640,507	11,031
	Establishments with--										
	90% or more specialization..	554	19,446	125,121	13,043	26,750	72,609	243,890	157,280	405,563	7,030
	75-89% specialization.....	31	3,504	22,827	2,173	4,361	12,177	39,943	25,622	64,222	662
35511	Dairy and milk products plant machinery and equipment (primary product class of estab.).....	66	4,318	28,196	2,872	5,488	14,996	68,356	40,017	110,923	1,393
	Establishments with--										
	90% or more specialization....	47	2,271	16,448	1,475	2,830	8,189	49,977	20,604	73,819	991
	75-89% specialization.....	5	492	2,707	366	709	1,821	3,549	7,949	10,583	39
35512	Commercial food-products machinery (primary product class of estab.).....	165	6,982	44,450	4,686	9,708	26,235	77,993	52,000	128,966	2,470
	Establishments with--										
	90% or more specialization....	122	4,314	26,487	3,005	6,166	16,752	50,715	30,713	80,631	1,562
	75-89% specialization.....	18	606	3,674	348	682	1,724	5,754	5,006	10,894	105
35513	Other industrial food products machinery.....	276	18,685	123,419	12,202	25,462	70,568	216,545	151,037	370,808	6,730
	Establishments with--										
	90% or more specialization....	186	8,292	53,272	5,583	11,766	31,402	94,175	70,723	165,939	2,935
	75-89% specialization.....	27	3,267	22,259	1,956	3,996	11,456	40,097	19,580	59,473	734
3552-	TEXTILE MACHINERY										
	Entire industry.....	561	36,004	196,379	26,870	56,145	129,064	314,190	232,271	542,684	13,870
	Establishment with--										
	90% or more specialization..	500	24,721	133,138	18,454	38,925	86,856	227,927	174,630	400,865	9,916
	75-89% specialization.....	19	5,670	31,551	4,100	8,362	20,139	43,711	33,106	76,775	1,063
35521	Textile Machinery (primary product class of estab.).....	164	21,015	119,218	15,072	31,757	75,301	186,011	125,359	309,177	7,257
	Establishments with--										
	90% or more specialization....	91	2,635	14,638	1,969	4,261	9,562	27,888	21,564	48,855	1,119
	75-89% specialization.....	28	4,521	23,755	3,213	6,721	13,798	41,988	35,102	77,357	1,054
35522	Parts and attachments for textile machinery (primary product class of estab.).....	235	13,687	71,179	10,738	22,196	49,298	117,452	101,169	217,124	6,246
	Establishments with--										
	90% or more specialization....	180	5,385	25,413	4,358	9,073	17,475	42,579	34,209	76,624	1,815
	75-89% specialization.....	25	2,144	11,481	1,709	3,295	8,191	15,994	13,269	29,194	744
3553-	WOODWORKING MACHINERY										
	Entire industry.....	249	12,057	72,928	8,725	17,662	45,877	146,998	110,061	252,762	4,720
	Establishments with--										
	90% or more specialization..	200	4,731	27,727	3,365	6,614	17,456	64,457	45,063	108,164	1,699
	75-89% specialization.....	12	1,601	10,253	1,148	2,424	6,170	25,102	14,616	40,047	673
35531	Woodworking machinery (except homeworkshop) including parts and attachments (primary product class of estab.).....	149	10,199	61,261	7,378	14,879	37,984	126,396	93,352	216,902	3,980
	Establishments with--										
	90% or more specialization....	108	3,603	22,114	2,542	5,031	13,707	51,163	34,774	84,556	1,301
	75-89% specialization.....	12	1,065	6,601	793	1,685	4,263	11,770	10,136	22,271	351
35532	Woodworking machinery for homeworkshop including parts and attachments (primary product class of estab.).....	16	1,572	10,173	1,132	2,384	6,781	17,552	14,188	30,139	576



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued**

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3554-	PAPER INDUSTRIES MACHINERY										
	Entire industry.....	217	18,605	130,614	12,914	27,233	82,299	217,475	196,467	403,925	10,349
	Establishments with--										
	90% or more specialization..	181	13,135	93,668	9,490	19,551	62,067	154,075	153,916	299,595	7,095
	75-89% specialization.....	10	756	6,041	506	1,244	3,677	10,066	7,226	16,763	370
3555-	PRINTING TRADES MACHINERY										
	Entire industry.....	490	22,952	159,407	16,437	34,269	104,446	285,879	170,723	448,398	8,911
	Establishments with--										
	90% or more specialization..	438	19,290	135,057	13,637	28,427	87,256	240,067	144,871	375,686	7,763
	75-89% specialization.....	16	2,275	14,715	1,770	3,473	10,840	30,706	17,325	49,012	966
35551	Printing presses (primary product class of estab.).....	44	9,404	69,378	6,618	14,126	45,831	115,642	75,054	186,645	4,459
	Establishments with--										
	90% or more specialization....	26	3,320	22,938	2,435	5,124	16,033	42,565	22,034	63,103	1,405
	75-89% specialization.....	5	3,059	23,149	2,201	4,525	15,772	32,753	20,326	50,724	1,634
35552	Other printing trades machinery including parts and attachments (primary product class of estab.)	206	12,352	83,197	8,955	18,399	53,784	157,011	88,889	240,730	4,048
	Establishments with--										
	90% or more specialization....	158	8,115	55,001	5,829	11,898	35,096	100,938	53,573	149,667	2,482
	75-89% specialization.....	20	2,102	14,194	1,653	3,296	10,274	31,252	17,067	49,128	920
3559-	SPECIAL INDUSTRY MACHINES N.E.C...										
	Entire industry.....	1,092	50,226	330,127	34,063	70,932	199,400	572,236	433,933	1,015,014	22,533
	Establishments with--										
	90% or more specialization..	887	28,448	183,519	19,439	40,478	109,696	320,304	271,330	592,861	14,329
	75-89% specialization.....	48	5,082	35,493	3,121	6,454	19,768	58,756	44,799	102,676	1,838
35591	Chemical manufacturing industries machinery (primary product class of estab.).....	79	7,629	52,163	4,737	9,869	28,113	87,577	62,627	149,732	2,906
	Establishments with--										
	90% or more specialization....	43	1,652	13,774	1,074	2,195	6,905	20,882	18,363	37,825	801
	75-89% specialization.....	10	1,291	9,435	677	1,365	4,243	16,032	10,142	26,397	730
35592	Foundry machinery (primary product class of estab.).....	70	5,161	35,169	3,405	7,388	20,086	65,255	44,276	109,234	1,796
	Establishments with--										
	90% or more specialization....	51	1,959	13,702	1,300	2,963	7,748	27,758	17,108	44,622	461
	75-89% specialization.....	8	1,270	8,462	753	1,598	4,319	12,894	13,001	25,843	396
35593	Plastics working machinery (primary product class of estab.)....	95	7,399	52,532	4,899	10,461	31,098	92,070	72,979	163,333	3,931
	Establishments with--										
	90% or more specialization....	59	1,842	12,037	1,187	2,529	6,644	18,381	19,640	38,109	1,292
	75-89% specialization.....	8	664	4,615	386	807	2,503	9,930	9,409	18,884	367
35594	Rubber working machinery (primary product class of estab.).....	35	3,162	21,451	2,197	4,569	14,081	37,976	37,227	76,433	1,067
	Establishments with--										
	90% or more specialization....	22	2,146	13,940	1,595	3,288	9,234	26,637	22,249	49,964	580
35595	Other special industrial machinery (primary product class of estab.)	492	24,487	155,903	17,002	35,043	96,635	265,579	212,442	478,604	11,860
	Establishments with--										
	90% or more specialization....	375	14,878	91,914	10,215	20,945	56,104	164,216	135,240	299,429	8,068
	75-89% specialization.....	42	3,171	22,682	2,159	4,537	13,642	31,363	29,261	62,634	1,874

n.e.c. Not elsewhere classified.

TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3551.—FOOD PRODUCTS MACHINERY							
Ferrous foundry.....	11	2	4	5	323	(D)	(D)	281
Nonferrous foundry (except die casting).....	9	6	2	1	54	17	(D)	(D)
Heat treating of metals.....	34	29	5	-	100	52	48	-
Automatic screw machine department.....	27	20	4	3	135	27	33	75
Machine shop.....	297	95	126	76	6,342	186	1,246	4,910
Tool and die shop.....	59	41	15	3	273	68	114	91
Foundry pattern shop.....	30	25	5	-	87	39	48	-
Plate or structural fabrication.....	148	50	57	41	2,298	107	493	1,698
Stamping, blanking and forming of metals.....	126	76	42	8	733	161	360	212
Painting, lacquering and enameling on metals.....	187	169	17	1	398	248	(D)	(D)
	INDUSTRY 3552.—TEXTILE MACHINERY							
Ferrous foundry .....	18	2	2	14	1,079	(D)	(D)	1,049
Nonferrous foundry (except die casting).....	10	3	3	4	117	7	19	91
Heat treating of metals.....	66	44	18	4	354	62	156	136
Automatic screw machine department.....	50	23	16	11	595	43	142	410
Machine shop.....	234	64	88	82	9,282	89	851	8,342
Tool and die shop.....	60	32	20	8	769	54	197	518
Foundry pattern shop.....	34	27	5	2	159	52	(D)	(D)
Plate or structural fabrication.....	73	43	18	12	750	87	172	491
Stamping, blanking and forming of metals.....	93	49	26	18	1,209	86	251	872
Painting, lacquering and enameling on metals.....	102	87	11	4	351	118	92	141
	INDUSTRY 3553.—WOODWORKING MACHINERY							
Ferrous foundry.....	13	4	6	3	310	10	54	246
Nonferrous foundry (except die casting).....	1	1	-	-	(D)	(D)	-	-
Nonferrous die casting.....	3	1	1	1	72	(D)	(D)	(D)
Forging.....	3	3	-	-	5	5	-	-
Electroplating and other plating.....	5	1	3	1	89	(D)	(D)	(D)
Heat treating of metals.....	20	17	3	-	74	38	36	-
Automatic screw machine department.....	17	14	2	1	67	23	(D)	(D)
Machine shop.....	119	31	45	43	3,274	50	467	2,757
Tool and die shop.....	31	20	10	1	247	40	(D)	(D)
Foundry pattern shop.....	18	17	1	-	32	(D)	(D)	-
Plate or structural fabrication.....	51	18	26	7	431	26	242	163
Stamping, blanking and forming of metals.....	31	18	12	1	212	27	(D)	(D)
Painting, lacquering and enameling on metals.....	80	70	8	2	219	83	(D)	(D)
	INDUSTRY 3554.—PAPER INDUSTRIES MACHINERY							
Ferrous foundry.....	11	1	3	7	733	(D)	(D)	697
Nonferrous foundry (except die casting).....	9	7	1	1	46	(D)	(D)	(D)
Heat treating of metals.....	1	1	-	-	(D)	(D)	-	-
Automatic screw machine department.....	1	1	-	-	(D)	(D)	-	-
Machine shop.....	102	21	31	50	7,779	22	330	7,427
Tool and die shop.....	19	10	8	1	105	25	(D)	(D)
Foundry pattern shop.....	25	17	6	2	131	26	(D)	(D)
Plate or structural fabrication.....	36	19	9	8	592	29	88	475
Stamping, blanking and forming of metals.....	2	2	-	-	(D)	(D)	-	-
Painting, lacquering and enameling on metals.....	45	41	4	-	84	58	26	-
	INDUSTRY 3555.—PRINTING TRADES MACHINERY							
Ferrous foundry.....	6	-	2	4	145	-	(D)	(D)
Nonferrous foundry (except die casting).....	5	3	1	1	51	(D)	(D)	(D)
Heat treating of metals.....	27	20	7	-	84	30	54	-
Automatic screw machine department.....	14	11	1	2	139	18	(D)	(D)
Machine shop.....	125	26	47	52	7,135	65	468	6,602
Tool and die shop.....	31	12	18	1	255	26	(D)	(D)
Foundry pattern shop.....	15	9	6	-	82	18	64	-
Plate or structural fabrication.....	31	18	9	4	250	34	61	155
Stamping, blanking and forming of metals.....	25	17	5	3	323	33	38	252
Painting, lacquering and enameling on metals.....	68	51	15	2	249	90	(D)	(D)

See footnotes at end of table.



TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963—Continued

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3559.—SPECIAL INDUSTRY MACHINES, N.E.C.							
Ferrous foundry.....	24	2	7	15	1,081	(D)	(D)	1,000
Nonferrous foundry (except die casting).....	21	11	7	3	201	24	60	117
Forging.....	7	4	2	1	115	9	(D)	(D)
Electroplating and other plating.....	17	13	4	-	56	18	38	-
Galvanizing and other hot dip coating.....	5	4	1	-	12	(D)	(D)	-
Heat treating of metals.....	62	51	10	1	177	83	(D)	(D)
Automatic screw machine department.....	27	20	7	-	92	33	59	-
Machine shop.....	421	135	148	138	11,911	256	1,406	10,249
Tool and die shop.....	80	44	27	9	592	75	248	269
Foundry pattern shop.....	50	44	5	1	151	71	(D)	(D)
Plate or structural fabrication.....	223	91	85	47	3,614	180	847	2,587
Stamping, blanking and forming of metals.....	101	54	34	13	957	96	324	537
Painting, lacquering and enameling on metals.....	224	198	23	3	535	271	204	60

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below.

Item	Industry					
	3551	3552	3553	3554	3555	3559
Total number of establishments in the industry.....	681	561	249	217	490	1,092
Number of establishments which reported one or more of the specified operations.....	353	261	143	125	162	537
Percent of industry production workers in these establishments.....	80-85	80-85	90-95	90-95	80-85	85-90
Number of establishments which reported "none" of the operations apply.....	14	43	5	10	54	31
Percent of industry production workers in these establishments.....	0-5	0-5	0-5	0-5	0-5	0-5
Percent of industry production workers in establishments which completed metalworking operations inquiry.....	80-85	80-85	90-95	95-100	85-90	85-90

- Represents zero. n.e.c. Not elsewhere classified.

(D) Withheld to avoid disclosing figures for individual companies.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.

## GENERAL INDUSTRIAL MACHINERY AND EQUIPMENT

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3561—Pumps, Air and Gas Compressors, and Pumping Equipment
- 3562—Ball and Roller Bearings
- 3564—Blowers, Exhaust and Ventilating Fans
- 3565—Industrial Patterns
- 3566—Mechanical Power Transmission Equipment, Except Ball and Roller Bearings
- 3567—Industrial Process Furnaces and Ovens
- 3569—General Industrial Machinery and Equipment, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3561—PUMPS, AIR AND GAS COMPRESSORS, AND PUMPING EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing pumps, compressors, and pumping equipment for general industrial use. Establishments primarily engaged in manufacturing measuring and dispensing pumps for gasoline service station use are classified in industry 3586; and ice making, refrigerating, and air conditioning units in industry 3585. For a detailed list of products of industry 3561, refer to table 6A, product codes 3561101 to 3561611.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Pumps and Compressors Industry totaled \$1,419 million. This amount included shipments of pumps and compressors (primary products) valued at \$1,070 million, shipments of other products (secondary products) valued at \$186 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$163 million.

This industry's shipments of pumps and compressors represented 85 percent of its total product shipments. The industry specialization ratio in 1958 was 87 percent. Secondary



products shipped by this industry in 1963 include other metal valves and fittings (\$22 million), and parts and accessories for internal combustion engines (\$12 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 29 percent of the total industry shipments are represented by plants specializing in industrial pumps, except fluid power; and 27 percent in air and gas compressors, except refrigeration.

Shipments of pumps and compressors by this industry represented 86 percent of all shipments of these products (\$1,249 million) by all industries. In 1958 the coverage ratio was 85 percent. Other industries shipping pumps and compressors (primary products) include industry 3519, Internal Combustion Engines, \$26 million; and industry 3494, Valves and Pipe Fittings, \$16 million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3561, e.g., Domestic water systems and pumps, 93 percent; and Hydraulic fluid power pumps and motors, 76 percent.

The production index for the primary products of the industry increased to 147 in 1963 from the 1958 level of 101. The unit value index for 1963 was 95 compared to 113 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3562—BALL AND ROLLER BEARINGS

This industry comprises establishments primarily engaged in manufacturing ball and roller bearings and parts. Establishments primarily engaged in manufacturing bearings, except ball and roller, are classified in industry 3566. For a detailed list of products of industry 3562, refer to table 6A, product codes 3562111 to 3562451.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Ball and Roller Bearings Industry totaled \$999 million. This amount included shipments of ball and roller bearings (primary products) valued at \$946 million, shipments of other products (secondary products) valued at \$32 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$21 million.

This industry's shipments of ball and roller bearings represented 97 percent of its total product shipments. The industry specialization ratio in 1958 was 98 percent. Secondary products shipped by this industry in 1963 include power transmission equipment (\$5 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 48 percent of the total industry shipments are represented by plants specializing in roller bearings, complete; and 42 percent in ball bearings, complete.

Shipments of ball and roller bearings by this industry represented 98 percent of all shipments of these products (\$961 million) by all industries. In 1958 the coverage ratio was also 98 percent. Other industries shipping ball and roller bearings include industry 3566, Power Transmission Equipment, \$12 million.

### 3564—BLOWERS, EXHAUST AND VENTILATING FANS

This industry comprises establishments primarily engaged in manufacturing blowers, and exhaust and ventilating fans for general industrial, commercial, and household use. Establishments primarily engaged in manufacturing complete air conditioning units are classified in industry 3585, and free air circulating fans for use on desks, pedestals, or wall brackets in industry 3634. For a detailed list of products of industry 3564, refer to table 6A, product codes 3564111 to 3564255.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Blowers and Fans Industry totaled \$315 million. This amount included shipments of blowers and fans (primary products) valued at \$237 million, shipments of other products (secondary products) valued at \$51 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$28 million.

This industry's shipments of blowers and fans represented 83 percent of its total product shipments. The industry specialization ratio in 1958 was also 83 percent. Secondary products shipped by this industry in 1963 includes nonelectric heating equipment (\$9 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 69 percent of the total industry shipments are represented by plants specializing in industrial fans and blowers; and 24 percent in dust collection, air purification equipment, and air washers.

Shipments of blowers and fans by this industry represented 79 percent of all shipments of these products (\$299 million) by all industries. In 1958 the coverage ratio was also 79 percent. Other industries shipping blowers and fans include industry 3585, Refrigeration Machinery, \$12 million; and industry 3444, Sheet Metal Work, \$8 million.

### 3565—INDUSTRIAL PATTERNS

This industry comprises establishments primarily engaged in manufacturing industrial patterns. For a detailed list of products of industry 3565, refer to table 6A, product codes 3565011 to 3565098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Industrial Patterns Industry totaled \$141 million. This amount included shipments of industrial patterns (primary products) valued at \$128 million, shipments of other products (secondary products) valued at \$6 million, and miscellaneous receipts at \$7 million.

This industry's shipments of industrial patterns represented 96 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent.

Shipments of industrial patterns by this industry represented 80 percent of all shipments of these products (\$160 million) by all industries. In 1958 the coverage ratio was 74 percent. Other industries shipping industrial patterns (primary products) include industry 3321, Gray Iron Foundries, \$10 million; and industry 3323, Steel Foundries, \$6 million.



### 3566—MECHANICAL POWER TRANSMISSION EQUIPMENT, EXCEPT BALL AND ROLLER BEARINGS

This industry comprises establishments primarily engaged in manufacturing mechanical power transmission equipment and parts for industrial machinery. Establishments primarily engaged in manufacturing automotive, tank, and tractor power transmission equipment are classified in industry 3714 (census industry 3717); aircraft power transmission equipment in industry 3729; and ball and roller bearings in industry 3562. For a detailed list of products of industry 3566, refer to table 6A, product codes 3566115 to 3566398.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Power Transmission Equipment Industry totaled \$889 million. This amount included shipments of power transmission equipment (primary products) valued at \$696 million, shipments of other products (secondary products) valued at \$130 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$63 million.

This industry's shipments of mechanical power transmission equipment represented 84 percent of its total product shipments. The industry specialization ratio in 1958 was 83 percent. Secondary products shipped by this industry in 1963 include motor vehicles and parts (\$30 million), and conveyors (\$19 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 37 percent of the total industry shipments are represented by plants specializing in speed changers, industrial high-speed drives and gears.

Shipments of power transmission equipment by this industry represented 79 percent of all shipments of these products (\$883 million) by all industries. In 1958 the coverage ratio was also 79 percent. Other industries shipping mechanical power transmission equipment (primary products) include industry 3717, Motor Vehicles and Parts, \$34 million; and industry 3621, Motors and Generators, \$22 million.

### 3567—INDUSTRIAL PROCESS FURNACES AND OVENS

This industry comprises establishments primarily engaged in manufacturing industrial process furnaces, ovens, induction and dielectric heating equipment, and related devices. For a detailed list of products of industry 3567, refer to table 6A, product codes 3567111 to 3567391.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Industrial Furnaces and Ovens Industry totaled \$279 million. This amount included shipments of industrial furnaces and ovens (primary products) valued at \$202 million, shipments of other products (secondary products) valued at \$40 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$37 million.

This industry's shipments of industrial furnaces and ovens represented 83 percent of its total product shipments. The industry specialization ratio in 1958 was 85 percent. Secondary products shipped by this industry in 1963 include special industry machines, n.e.c. (\$15 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 41 percent of the total industry shipments are represented by plants specializing in high frequency induction and dielectric heating equipment and 34 percent in fuel-fired industrial furnaces and ovens, metal processing.

Shipments of industrial furnaces and ovens by this industry represented 85 percent of all shipments of these products (\$238 million) by all industries. In 1958 the coverage ratio was 83 percent.

The production index for the primary products of the industry increased to 126 in 1963 from the 1958 level of 91. The unit value index for 1963 was 111 compared to 114 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3569—GENERAL INDUSTRIAL MACHINERY AND EQUIPMENT, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing machinery, equipment, and components for general industrial use, and for which no special classification is provided. Machine shops primarily engaged in producing machine and equipment parts, usually on a job or order basis, are classified in industry 3599. For a detailed list of products of industry 3569, refer to table 6A, product codes 3569012 to 3569098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the General Industry Machines, N.E.C., Industry totaled \$691 million. This amount included shipments of general industry machines, n.e.c., (primary products) valued at \$463 million, shipments of other products (secondary products) valued at \$93 million, and miscellaneous receipts (mainly receipts for research and development) at \$136 million.

This industry's shipments of general industry machines, n.e.c., represented 83 percent of its total product shipments (primary and secondary). The industry specialization ratio in 1958 was 87 percent. Secondary products shipped by this industry in 1963 include nonelectric heating equipment (\$15 million) and metalworking machines, n.e.c. (\$8 million).

Shipments of general industry machines, n.e.c., by this industry represented 70 percent of all shipments of these products (\$664 million) by all industries. In 1958 the coverage ratio was 74 percent. Other industries shipping general industry machinery, n.e.c. (primary products) include industry 3559, Special Industry Machines, N.E.C., \$16 million; and industry 3599, Miscellaneous Machinery, \$13 million.



# GENERAL INDUSTRIAL MACHINERY: SIC 356 Value Added by Manufacture by State: 1963

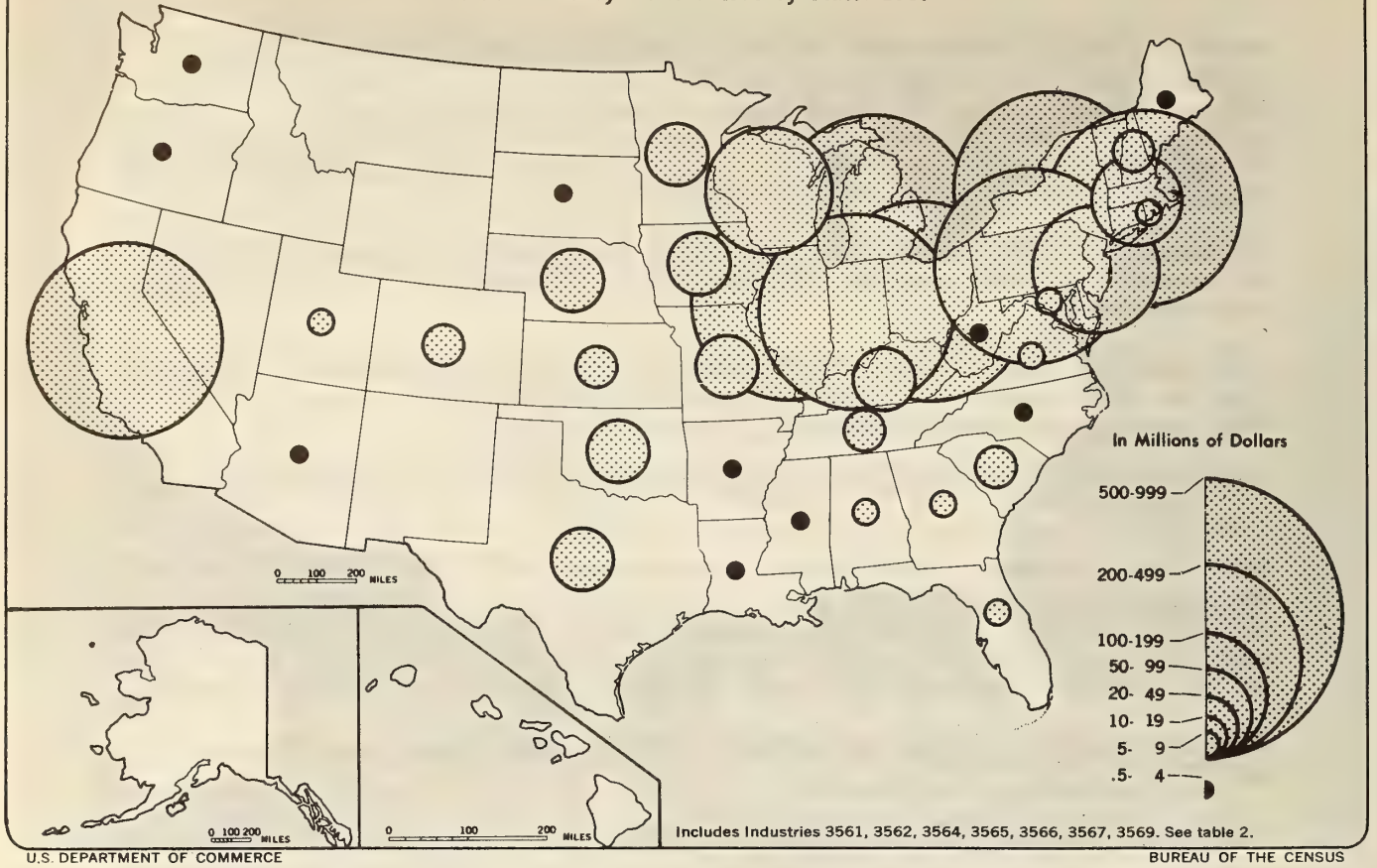


TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new  (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more  (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3561.—PUMPS AND COMPRESSORS														
1963.....	589	642	267	61,322	395,769	38,934	80,825	224,721	768,787	660,549	1,419,081	28,417	85	86
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	61,609	383,325	38,180	78,648	214,398	681,380	601,994	1,296,653	24,672	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	59,415	353,585	37,005	75,601	196,187	636,007	569,392	1,229,662	18,480	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	62,806	360,813	39,716	80,543	206,072	674,077	603,031	1,275,082	26,133	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	59,398	330,516	38,134	76,380	183,592	623,976	580,712	1,207,558	23,883	(NA)	(NA)
1958.....	530	582	243	60,042	321,509	37,407	74,975	180,146	542,037	535,221	1,114,053	24,678	87	85
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	62,105	317,730	40,799	83,472	188,579	589,595	518,080	1,091,719	29,877	86	83
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	59,507	295,413	40,505	84,206	183,524	576,470	485,832	1,029,401	25,005	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	60,562	286,231	41,152	84,353	177,358	565,597	440,767	963,036	17,967	(NA)	(NA)
1954.....	463	496	237	60,324	272,632	41,269	82,859	168,613	495,471	460,547	974,810	18,015	82	78
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	61,269	273,140	42,350	90,035	181,588	481,639	440,924	922,563	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	60,992	260,461	42,947	91,443	175,424	475,041	410,404	885,445	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	58,674	237,535	41,883	89,628	160,811	407,324	393,184	800,508	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	44,016	155,104	30,500	60,740	99,308	268,416	232,170	500,586	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	44,714	149,401	30,888	62,036	95,455	261,833	228,355	490,188	(NA)	(NA)	(NA)
1947.....	425	448	237	56,142	172,857	41,413	85,505	119,763	291,658	279,555	571,213	14,631	81	85
1939.....	(NA)	369	(NA)	(NA)	(NA)	20,063	(NA)	27,480	84,780	57,034	141,814	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	310	(NA)	(NA)	(NA)	21,668	(NA)	30,910	83,297	60,749	144,046	(NA)	(NA)	(NA)
INDUSTRY 3562.—BALL AND ROLLER BEARINGS														
1963.....	93	125	93	52,316	348,700	42,003	85,970	263,022	627,694	372,267	998,784	39,243	97	98
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	53,397	348,048	42,458	84,964	249,621	623,505	345,394	962,726	32,881	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	50,288	306,430	39,584	76,779	215,375	530,444	291,615	824,134	32,269	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	54,113	315,114	42,562	84,132	225,751	547,608	315,842	865,331	44,862	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	53,707	325,313	43,373	91,561	243,186	599,776	358,661	920,049	35,488	(NA)	(NA)
1958.....	86	107	81	46,439	241,160	35,757	67,323	169,117	407,744	231,314	649,640	34,303	98	98
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	54,506	279,668	43,889	85,802	205,375	480,275	277,374	753,556	36,312	98	97
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	55,441	278,613	45,166	92,745	214,101	467,706	286,762	742,120	38,528	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	52,650	263,527	43,185	92,678	204,922	422,846	275,876	681,119	27,452	(NA)	(NA)
1954.....	83	102	81	49,720	214,088	39,974	78,233	159,813	329,393	207,624	543,622	27,828	98	98
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	58,503	251,056	48,772	99,627	197,633	401,370	231,429	632,799	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	59,803	239,855	50,204	102,983	191,139	396,614	217,988	614,602	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	59,644	239,127	51,048	111,663	198,352	388,475	237,258	625,733	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	48,256	173,022	40,854	85,973	140,942	282,397	171,159	453,556	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	42,527	132,766	35,320	67,185	103,836	213,479	121,768	335,247	(NA)	(NA)	(NA)
1947.....	78	94	74	52,174	153,333	45,075	91,323	125,711	259,060	106,524	365,584	21,872	94	96
1939 <sup>3</sup> .....	(NA)	58	(NA)	(NA)	(NA)	19,164	(NA)	27,219	77,497	27,989	105,486	(NA)	(NA)	(NA)
INDUSTRY 3564.—BLOWERS AND FANS														
1963.....	225	237	97	15,244	94,090	10,733	21,616	57,776	180,801	135,733	315,285	6,979	83	79
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	14,722	93,582	9,832	20,423	51,749	169,245	140,182	306,971	(7,678)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	14,432	88,915	9,650	19,508	49,714	155,094	131,581	286,192	5,162	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	14,593	88,498	9,849	19,701	49,907	153,772	125,294	280,495	5,996	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,540	88,640	10,493	21,203	50,466	154,584	132,876	285,564	4,504	(NA)	(NA)
1958.....	199	207	104	15,947	82,457	10,980	21,356	50,322	145,050	121,646	271,629	5,569	83	79
1954.....	208	214	106	18,125	80,850	13,724	27,349	54,033	153,366	124,415	279,693	5,873	83	76
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,384	76,098	12,174	26,489	51,135	143,384	87,253	230,637	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	14,450	63,864	10,588	22,680	42,859	124,517	74,866	199,383	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,293	63,485	11,168	23,914	41,031	121,409	75,289	196,698	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,048	43,604	8,961	20,682	28,493	78,803	55,533	134,336	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,940	44,290	10,009	20,818	29,448	80,883	55,423	136,306	(NA)	(NA)	(NA)
1947.....	187	192	93	14,794	44,202	11,087	23,389	30,329	84,429	56,287	140,716	3,551	75	78
1939.....	(NA)	89	(NA)	(NA)	(NA)	4,069	(NA)	5,563	17,474	12,168	29,642	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	42	(NA)	(NA)	(NA)	3,997	(NA)	5,845	17,534	12,731	30,265	(NA)	(NA)	(NA)
INDUSTRY 3565.—INDUSTRIAL PATTERNS														
1963.....	1,206	1,209	106	9,914	75,605	8,685	17,710	64,877	112,587	29,167	140,696	3,794	96	80
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,459	67,024	8,584	15,963	56,552	98,293	22,175	119,682	(961)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,877	59,066	8,095	14,452	49,139	85,457	21,534	106,360	(1,483)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,148	63,794	8,402	15,411	53,665	93,034	22,339	116,486	(S)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,430	61,444	8,581	16,183	51,809	88,270	23,141	110,406	(S)	(NA)	(NA)
1958 <sup>4</sup> .....	1,170	1,174	96	8,870	54,746	7,683	13,950	45,370	78,108	20,726	98,343	3,214	95	74
INDUSTRY 3566.—POWER TRANSMISSION EQUIPMENT														
1963.....	498	532	272	46,670	303,314	34,400	71,101	203,941	555,710	345,058	888,641	26,444	84	79
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	43,642	281,744	31,393	64,632	182,756	494,926	300,869	787,631	(32,026)	(X)	(X)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	40,042	244,846	28,768	57,754	157,287	429,021	252,271	682,644	17,225	(X)	(X)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	41,829	249,780	30,324	61,371	161,757	431,082	257,050	691,915	23,021	(X)	(X)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	44,186	255,613	32,248	64,551	168,433	470,903	283,326	739,948	21,908	(X)	(X)
1958 <sup>4</sup> .....	449	470	236	41,782	226,101	29,762	57,537	143,812	384,372	230,817	630,303	26,842	(X)	79

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)	
	INDUSTRY 3567.—INDUSTRIAL FURNACES AND OVENS													
1963.....	229	238	93	12,118	83,738	6,782	13,963	38,731	143,009	137,732	279,058	4,561	83	85
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,082	72,328	6,169	13,017	33,705	117,549	121,176	238,045	2,308	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,725	69,908	5,897	12,688	31,470	115,711	107,904	225,125	(2,746)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,276	70,999	6,349	13,464	33,457	124,769	129,565	259,795	2,139	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,956	65,107	6,395	13,299	31,622	114,596	113,044	222,463	(S)	(NA)	(NA)
1958 <sup>4</sup> .....	197	201	89	10,288	57,394	5,774	11,671	26,859	96,450	101,814	204,835	2,853	85	83
	INDUSTRY 3569.—GENERAL INDUSTRY MACHINES, N.E.C.													
1963.....	754	777	277	35,559	240,816	20,332	40,869	109,354	424,084	272,709	691,280	15,102	83	70
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	33,027	219,059	19,161	36,714	92,943	284,354	314,938	609,430	(20,353)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	30,646	200,595	17,243	33,881	86,223	256,854	297,415	572,232	20,087	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	29,468	185,762	16,597	33,369	82,121	261,558	252,254	549,910	18,738	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	28,901	175,567	16,889	33,248	80,523	306,859	207,556	496,245	20,225	(NA)	(NA)
1958 <sup>4</sup> .....	568	584	209	28,014	159,915	16,068	31,784	75,622	281,423	189,847	458,280	17,347	87	74

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>"Pumps and Compressors" were formerly included with the discontinued classification "Pumps (hand and power), pumping equipment, and air compressors." Separate figures are, therefore, not available prior to 1937.

<sup>3</sup>No comparable figures are available for earlier years.

<sup>4</sup>A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification. Accordingly, the data for 1958-1963 are not comparable with those for earlier years.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3561.—PUMPS AND COMPRESSORS													
Total.....	642	267	61,322	395,769	38,934	80,825	224,721	768,787	660,549	1,419,081	28,417	60,042	542,037
New England.....	30	16	4,176	26,000	2,523	5,286	14,279	52,413	29,902	82,045	1,754	3,594	30,682
Massachusetts....	18	10	2,304	13,631	1,443	3,034	8,257	23,995	16,534	40,894	1,107	1,678	12,766
Middle Atlantic....	124	52	19,239	125,689	12,288	25,227	73,414	220,421	223,364	443,979	7,684	19,384	162,390
New York.....	40	15	8,768	56,422	5,484	11,251	32,031	99,377	107,616	209,280	3,436	9,570	78,082
New Jersey.....	39	15	5,976	39,228	4,113	8,206	25,598	69,564	73,519	144,612	2,314	5,409	45,824
Pennsylvania.....	45	22	4,495	30,039	2,691	5,770	15,785	51,480	42,229	90,087	1,934	4,405	38,484
East North Central.	197	92	22,318	146,619	14,236	29,961	82,503	286,775	221,440	500,081	11,450	24,839	226,783
Ohio.....	49	27	8,965	58,214	5,650	11,675	32,810	103,966	80,829	182,139	5,040	9,004	77,768
Indiana.....	23	9	2,315	13,549	1,502	3,061	7,789	27,551	25,711	52,618	1,188	2,341	21,314
Illinois.....	54	25	6,252	41,543	4,012	8,976	23,775	97,633	64,645	158,403	3,044	5,751	67,708
Michigan.....	37	15	1,883	12,614	1,216	2,484	6,762	23,954	16,803	40,771	986	4,116	24,814
Wisconsin.....	34	16	2,903	20,699	1,856	3,765	11,367	33,671	33,452	66,150	1,192	3,627	35,179
West North Central.	42	18	4,067	25,198	2,715	5,522	15,667	65,397	41,826	105,623	1,502	3,001	27,788
Iowa.....	9	3	812	5,079	487	1,058	2,817	9,748	6,351	15,940	323	662	5,523
Missouri.....	9	5	1,202	7,374	828	1,631	4,750	14,874	15,023	29,777	216	820	8,245
South Atlantic.....	36	10	698	3,392	491	997	2,031	7,393	5,267	12,664	491	550	2,939
Georgia.....	6	3	373	1,812	241	471	924	4,090	2,517	6,580	119	150	1,068
Florida.....	20	6	272	1,347	212	453	958	2,894	2,236	5,164	358	277	1,355
East South Central.	12	3	635	3,576	477	1,000	2,412	5,618	5,862	11,287	395	362	2,636
West South Central.	70	32	3,869	22,869	2,628	5,390	12,859	51,101	50,025	100,001	2,842	2,620	27,079
Oklahoma.....	22	13	1,517	8,933	990	1,939	4,846	17,365	15,935	34,620	2,078	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	42	16	2,073	12,647	1,438	3,076	7,306	30,739	28,253	56,762	741	1,323	14,903
Mountain.....	13	5	448	3,084	220	545	1,402	7,561	9,629	17,184	86	341	4,972
Pacific.....	118	39	5,872	39,342	3,356	6,897	20,154	72,108	73,234	146,217	2,213	5,351	56,768
California.....	111	38	5,834	39,113	3,335	6,857	20,025	71,674	72,672	145,243	2,207	5,318	56,464
INDUSTRY 3562.—BALL AND ROLLER BEARINGS													
Total.....	125	93	52,316	348,700	42,003	85,970	263,022	627,694	372,267	998,784	39,243	46,439	407,744
New England.....	26	23	17,017	104,540	13,856	28,144	78,629	182,052	68,675	254,264	9,875	15,460	129,767
Connecticut.....	18	16	15,078	93,864	12,292	24,874	71,004	165,473	64,329	233,006	9,252	( <sup>2</sup> )	( <sup>2</sup> )
Middle Atlantic....	40	27	13,546	94,526	10,564	21,755	69,600	165,398	99,066	262,174	10,846	12,095	113,221
New York.....	15	10	4,460	27,713	3,391	7,055	19,912	46,293	28,216	74,055	4,255	( <sup>2</sup> )	( <sup>2</sup> )
North Central.....	38	29	20,028	136,173	16,117	32,922	103,347	259,919	192,054	451,917	14,932	18,432	162,235
Illinois.....	9	7	2,704	19,489	1,968	4,220	13,405	33,900	25,562	61,347	1,096	1,680	19,515
Michigan.....	9	5	4,298	31,034	3,661	7,603	25,443	54,997	30,354	85,347	4,078	3,796	37,289
South.....	11	8	1,157	9,590	997	2,102	8,534	15,488	10,367	23,481	3,037	253	1,526
Pacific.....	10	6	568	3,871	469	1,047	2,912	4,837	2,105	6,948	553	199	995
California.....	10	6	568	3,871	469	1,047	2,912	4,837	2,105	6,948	553	199	995
INDUSTRY 3564.—BLOWERS AND FANS													
Total.....	237	97	15,244	94,090	10,733	21,616	57,776	180,801	135,733	315,285	6,979	15,947	145,050
New England.....	16	6	2,296	14,718	1,575	3,118	8,944	22,349	18,495	40,820	1,667	2,559	21,823
Middle Atlantic....	42	21	3,677	23,057	2,632	5,456	13,851	40,991	30,960	70,776	1,943	4,051	36,424
New York.....	18	8	2,131	12,976	1,646	3,374	8,881	23,186	14,537	37,295	1,510	2,162	20,341
New Jersey.....	11	7	860	6,129	432	884	2,329	9,578	11,470	20,218	348	1,099	8,193
Pennsylvania.....	13	6	686	3,952	554	1,198	2,641	8,227	4,953	13,263	85	790	7,890
East North Central.	83	40	5,779	35,244	3,885	7,822	20,541	72,862	53,251	126,646	2,262	6,064	53,728
Ohio.....	21	10	1,559	9,748	1,013	2,045	5,578	19,780	14,992	35,330	459	1,528	15,214
Indiana.....	13	6	1,274	6,937	825	1,603	3,997	12,725	9,480	22,058	683	1,087	7,781
Illinois.....	26	10	1,147	6,487	832	1,669	3,808	15,735	12,331	28,740	501	1,154	10,014
Michigan.....	14	8	1,485	10,183	989	2,015	6,074	19,529	14,579	33,629	448	2,019	18,832
Wisconsin.....	9	6	314	1,889	226	490	1,084	5,093	1,869	6,889	171	276	1,887
West North Central.	13	5	492	3,145	297	572	1,674	4,724	3,724	8,975	135	469	4,127
Minnesota.....	5	4	439	2,852	257	490	1,440	4,194	3,080	7,799	131	311	2,640

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3564.—BLOWERS AND FANS—Continued													
South.....	46	13	1,555	8,787	1,313	2,558	6,974	23,867	17,749	41,078	689	1,575	17,598
Florida.....	9	1	139	692	98	217	422	1,135	1,091	2,167	34	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	13	2	129	674	105	214	521	1,347	1,185	2,517	32	230	1,647
Mountain.....	7	-	43	201	29	52	122	314	418	714	15	22	221
Pacific.....	30	12	1,402	8,938	1,002	2,038	5,670	15,694	11,136	26,276	268	1,207	11,129
California.....	25	11	1,335	8,577	956	1,944	5,432	15,103	10,775	25,335	229	1,059	10,172
INDUSTRY 3565.—INDUSTRIAL PATTERNS													
Total.....	1,209	106	9,914	75,605	8,685	17,710	64,877	112,587	29,167	140,696	3,794	8,870	78,108
New England.....	99	7	602	4,305	503	1,026	3,446	5,830	1,458	7,230	146	516	4,132
Massachusetts.....	53	5	363	2,596	311	622	2,098	3,392	803	4,137	95	( <sup>2</sup> )	( <sup>2</sup> )
Connecticut.....	30	1	164	1,169	127	278	886	1,692	516	2,207	32	163	1,438
Middle Atlantic....	234	12	1,476	8,905	1,294	2,517	7,749	14,418	3,634	17,985	364	1,608	12,502
New York.....	84	6	645	3,847	555	1,079	3,198	6,472	1,676	8,153	137	( <sup>2</sup> )	( <sup>2</sup> )
North Central.....	649	77	6,628	54,252	5,834	12,035	46,632	80,122	19,879	99,144	1,984	5,768	51,979
Indiana.....	45	6	449	3,658	386	757	3,063	5,108	6,749	166	363	363	3,415
Illinois.....	118	10	944	6,756	830	1,603	5,964	10,392	2,956	13,274	242	836	7,783
Michigan.....	187	36	3,009	27,732	2,654	5,835	23,743	40,718	8,709	48,893	963	2,342	22,269
Missouri.....	27	4	271	1,844	245	469	1,604	2,816	917	3,679	103	197	1,999
South Atlantic.....	25	1	126	608	110	208	524	1,047	343	1,313	99	153	978
East South Central.	24	1	172	1,173	147	304	973	1,896	599	2,507	92	105	1,020
Alabama.....	13	1	115	772	99	215	619	1,205	342	1,553	69	( <sup>2</sup> )	( <sup>2</sup> )
West South Central.	30	1	158	890	136	278	820	1,486	417	1,916	26	102	1,016
Mountain.....	12	-	51	351	46	83	325	519	129	642	8		
Pacific.....	136	7	701	5,121	615	1,259	4,408	7,269	2,708	9,959	1,075	618	6,481
California.....	117	5	590	4,288	512	1,031	3,655	6,081	2,338	8,407	1,042	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3566.—POWER TRANSMISSION EQUIPMENT													
Total.....	532	272	46,670	303,314	34,400	71,101	203,941	555,710	345,058	888,641	26,444	41,782	384,372
New England.....	49	25	4,411	26,254	3,342	6,869	18,221	51,850	25,064	75,513	1,210	4,035	37,233
Massachusetts.....	30	15	3,392	20,291	2,538	5,112	14,087	39,166	19,691	58,356	952	2,863	28,019
Connecticut.....	14	8	932	5,494	736	1,591	3,804	11,388	5,018	15,991	238	1,122	8,866
Middle Atlantic....	103	55	9,336	58,453	6,611	13,580	37,522	99,686	66,285	164,597	3,838	10,247	80,522
New York.....	48	21	2,689	17,333	1,829	3,897	10,417	32,723	17,000	49,549	981	2,656	21,267
New Jersey.....	22	10	1,253	7,707	894	1,761	4,984	12,794	8,041	20,612	492	1,549	14,030
Pennsylvania.....	33	24	5,394	33,413	3,888	7,922	22,121	54,169	41,244	94,436	2,365	6,042	45,225
East North Central.	220	128	25,963	175,317	19,463	40,039	120,299	327,240	191,862	511,454	16,045	21,576	212,415
Ohio.....	50	35	4,186	26,743	3,137	6,717	18,445	50,404	30,751	80,044	2,239	3,849	37,629
Indiana.....	23	16	8,123	54,684	6,234	12,689	39,134	100,634	51,362	150,325	4,436	5,835	54,775
Illinois.....	77	45	6,037	39,274	4,505	9,066	26,276	71,515	46,191	116,626	2,473	5,789	56,748
Michigan.....	42	16	2,115	14,218	1,587	3,230	9,778	25,413	16,713	41,118	1,714	2,380	23,316
Wisconsin.....	28	16	5,502	40,398	4,000	8,337	26,666	79,274	46,845	123,341	5,183	3,723	39,947
West North Central.	40	20	1,695	9,905	1,317	2,677	7,054	18,291	15,330	33,134	484	1,098	9,498
Minnesota.....	15	8	578	3,516	464	943	2,577	5,851	4,390	10,303	143	471	4,387
Iowa.....	5	3	358	1,726	288	578	1,339	3,714	2,535	6,018	67	( <sup>2</sup> )	( <sup>2</sup> )
Missouri.....	16	7	541	3,475	428	854	2,480	5,958	5,596	11,330	176	305	3,105
South.....	42	19	2,955	17,572	2,068	4,537	10,628	34,073	30,094	63,347	2,722	2,999	25,071
Virginia.....	4	3	313	1,762	275	655	1,512	3,812	5,808	9,498	105	( <sup>2</sup> )	( <sup>2</sup> )
North Carolina....	4	3	116	672	88	212	419	1,107	254	1,371	22	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	15	6	751	3,925	541	1,179	2,540	7,975	5,905	13,594	349	706	4,828
West.....	78	25	2,310	15,813	1,599	3,399	10,217	24,570	16,423	40,596	2,145	1,827	19,633
California.....	66	21	1,951	13,411	1,288	2,735	8,303	19,564	13,377	32,901	1,824	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3567.—INDUSTRIAL FURNACES AND OVENS													
Total.....	238	93	12,118	83,738	6,782	13,963	38,731	143,009	137,732	279,058	4,561	10,288	96,450
New England.....	28	12	1,225	8,206	747	1,561	4,601	13,537	11,087	24,430	613	978	7,399
Massachusetts.....	19	8	805	5,577	558	1,145	3,637	9,507	7,058	16,319	509	707	5,284
Middle Atlantic....	65	26	4,204	28,422	2,422	4,875	13,011	50,684	46,803	95,601	1,317	4,022	31,104
New York.....	21	8	784	5,338	505	1,095	2,864	8,103	5,223	13,200	73	651	6,570
New Jersey.....	23	8	1,256	7,367	884	1,659	4,694	13,501	15,854	27,379	438	1,230	8,200
Pennsylvania.....	21	10	2,164	15,717	1,033	2,121	5,453	29,080	25,726	55,022	806	2,141	16,334
East North Central.	83	39	5,388	38,270	2,745	5,742	16,081	64,613	67,856	132,840	2,109	4,298	49,112
Ohio.....	27	11	2,136	16,860	925	1,961	5,825	26,886	33,915	60,309	1,096	1,501	20,229
Illinois.....	21	14	1,401	8,852	804	1,604	4,140	16,506	12,413	29,018	479	1,096	10,457

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials •	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
East North Central--Continued	INDUSTRY 3567.—INDUSTRIAL FURNACES AND OVENS—Continued												
Michigan.....	28	10	647	4,404	1,417	929	2,656	7,234	9,937	17,351	126	( <sup>2</sup> )	( <sup>2</sup> )
West North Central.	10	3	374	2,540	243	504	1,332	4,764	3,695	8,451	57	525	4,863
Minnesota.....	5	2	261	1,728	160	339	965	3,045	3,122	6,158	40	341	2,676
South.....	12	2	136	884	103	240	574	1,572	1,482	3,179	229	76	458
West.....	40	11	811	5,416	522	1,041	3,132	7,839	6,809	14,557	236	389	3,514
California.....	31	9	619	4,238	393	778	2,468	6,248	5,708	11,849	215	305	2,689
	INDUSTRY 3569.—GENERAL INDUSTRY MACHINES, N.E.C.												
Total.....	777	277	35,559	240,816	20,332	40,869	109,354	424,084	272,709	691,280	15,102	28,014	281,423
New England.....	63	27	3,352	20,507	2,017	4,092	10,441	55,807	24,817	80,678	1,653	5,683	48,638
Massachusetts.....	32	14	836	4,727	514	1,075	2,710	7,102	5,257	12,846	144	2,336	21,077
Connecticut.....	25	10	1,898	12,343	1,112	2,320	6,174	42,806	15,134	57,810	1,422	2,537	20,537
Middle Atlantic....	210	78	10,080	66,751	6,001	12,159	33,923	106,091	69,466	173,192	4,579	6,532	58,278
New York.....	90	30	5,089	35,684	2,702	5,420	15,869	49,172	31,832	81,903	2,363	3,442	28,416
New Jersey.....	59	22	1,590	9,550	1,118	2,298	5,959	19,188	12,774	32,494	460	1,474	13,719
Pennsylvania.....	61	26	3,401	21,517	2,181	4,441	12,095	37,731	24,860	58,795	1,756	1,616	16,143
East North Central.	218	84	9,284	59,006	6,174	12,182	33,599	107,323	71,282	180,439	3,249	7,536	76,565
Ohio.....	61	19	2,511	15,353	1,439	2,751	7,595	26,496	17,542	44,776	777	2,133	20,642
Indiana.....	15	7	1,274	8,055	901	1,697	4,435	13,196	11,364	23,586	463	( <sup>2</sup> )	( <sup>2</sup> )
Illinois.....	61	24	1,703	11,739	1,105	2,114	6,206	23,800	12,053	35,953	634	2,834	30,076
Michigan.....	52	19	2,492	15,517	1,805	3,658	10,109	26,955	16,236	44,013	1,036	( <sup>2</sup> )	( <sup>2</sup> )
Wisconsin.....	29	15	1,304	8,342	924	1,962	5,254	16,876	14,087	32,111	339	1,293	15,842
West North Central.	48	23	1,713	9,189	1,197	2,473	5,336	19,098	15,447	34,308	912	868	9,158
Minnesota.....	17	10	678	3,939	460	920	2,125	7,602	5,801	13,220	114	449	3,875
Iowa.....	8	4	477	2,194	361	805	1,465	6,136	4,303	10,551	482	( <sup>2</sup> )	( <sup>2</sup> )
Missouri.....	10	2	114	704	86	178	487	949	916	1,784	31	( <sup>2</sup> )	( <sup>2</sup> )
Kansas.....	7	4	177	1,146	115	261	608	2,339	1,795	4,089	83	( <sup>2</sup> )	( <sup>2</sup> )
South Atlantic.....	39	8	686	3,583	502	944	2,143	7,948	6,684	13,790	325	1,307	13,583
North Carolina...	7	2	122	548	98	184	319	1,520	1,077	2,570	77	( <sup>2</sup> )	( <sup>2</sup> )
Florida.....	13	2	105	638	65	137	321	1,443	1,268	2,632	35	171	1,151
East South Central.	22	6	984	5,682	715	1,574	3,338	10,323	10,405	21,132	414	471	4,469
Alabama.....	8	1	108	528	84	154	377	897	1,733	2,812	50	( <sup>2</sup> )	( <sup>2</sup> )
West South Central.	37	11	818	4,723	500	1,038	2,321	12,237	6,050	18,144	316	1,014	6,522
Texas.....	25	7	404	2,089	271	557	1,140	5,282	2,728	7,965	176	656	4,018
West.....	140	40	8,642	71,375	3,226	6,407	18,253	105,257	68,558	169,597	3,654	4,603	64,210
California.....	120	34	8,011	67,497	2,813	5,563	15,775	95,707	61,589	154,818	3,523	4,032	57,665

n.e.c. Not elsewhere classified.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3561, Pumps and Compressors: New England—New Hampshire, 1 (20-99); Rhode Island, 4 (250-499); Connecticut, 7 (1,525); West North Central—Minnesota, 11 (454); South Dakota, 1 (1-19); Nebraska, 3 (873); Kansas, 9 (500-999); South Atlantic—Delaware, 1 (1-19); Maryland, 5 (20-99); Virginia, 2 (20-99); West Virginia, 2 (1-19); East South Central—Kentucky, 3 (20-99); Tennessee, 5 (310); Alabama, 1 (100-249); Mississippi, 3 (100-249); West South Central—Arkansas, 3 (261); Louisiana, 3 (1-19); Mountain—Wyoming, 1 (1-19); Colorado, 6 (196); New Mexico, 1 (1-19); Arizona, 2 (20-99); Utah, 2 (100-249); Nevada, 1 (1-19); Pacific—Washington, 3 (1-19); Oregon, 3 (20-99); Hawaii, 1 (1-19).

SIC 3562, Ball and Roller Bearings: New England—New Hampshire, 4 (1,000-2,499); Massachusetts, 4 (250-499); Middle Atlantic—New Jersey, 8 (3,959); Pennsylvania, 17 (5,127); East North Central—Ohio, 9 (10,700); Indiana, 8 (1,000-2,499); Wisconsin, 1 (20-99); West North Central—Missouri, 1 (1-19); Kansas, 1 (20-99); South Atlantic—Virginia, 2 (100-249); North Carolina, 1 (20-99); South Carolina, 4 (455); Florida, 1 (1-19); East South Central—Tennessee, 1 (100-249); West South Central—Oklahoma, 2 (250-499).

SIC 3564, Blowers and Fans: New England—Massachusetts, 10 (1,000-2,499); Connecticut, 6 (1,000-2,499); West North Central—Iowa, 1 (1-19); Missouri, 5 (20-99); Kansas, 2 (1-19); South Atlantic—Delaware, 3 (1-19); North Carolina, 2 (20-99); East South Central—Kentucky, 4 (911); Tennessee, 7 (20-99); Alabama, 2 (100-249); Mississippi, 1 (1-19); West South Central—Arkansas, 1 (20-99); Louisiana, 3 (20-99); Oklahoma, 1 (20-99); Mountain—Colorado, 3 (20-99); Arizona, 3 (1-19); Utah, 1 (1-19); Pacific—Washington, 4 (20-99); Oregon, 1 (1-19).

SIC 3565, Industrial Patterns: New England—Maine, 1 (1-19); New Hampshire, 5 (1-19); Vermont, 1 (1-19); Rhode Island, 9 (20-99); Middle Atlantic—New Jersey, 54 (185); Pennsylvania, 96 (646); East North Central—Ohio, 152 (1,157); Wisconsin, 80 (574); West North Central—Minnesota, 19 (102); Iowa, 8 (20-99); Nebraska, 3 (1-19); Kansas, 10 (20-99); South Atlantic—Delaware, 2 (1-19); Maryland, 4 (20-99); Virginia, 3 (20-99); West Virginia, 3 (20-99); North Carolina, 6 (20-99); South Carolina, 2 (1-19); Georgia, 3 (1-19); Florida, 2 (1-19); East South Central—Kentucky, 6 (1-19); Tennessee, 5 (20-99); West South Central—Louisiana, 2 (1-19); Oklahoma, 8 (20-99); Texas, 20 (1-99); Mountain—Colorado, 9 (20-99); Arizona, 2 (1-19); Utah, 1 (1-19); Pacific—Washington, 9 (20-99); Oregon, 10 (20-99).

SIC 3566, Power Transmission Equipment: New England—Maine, 1 (1-19); Vermont, 2 (20-99); Rhode Island, 2 (20-99); West North Central—Nebraska, 1 (20-99); Kansas, 3 (100-249); South Atlantic—Maryland, 3 (923); South Carolina, 2 (100-249); Georgia, 2 (1-19); Florida, 3 (1-19); East South Central—Kentucky, 2 (250-499); Tennessee, 1 (20-99); West South Central—Arkansas, 3 (20-99); Oklahoma, 3 (20-99); Mountain—Colorado, 5 (256); Pacific—Washington, 2 (20-99); Oregon, 5 (20-99).

SIC 3567, Industrial Furnaces and Ovens: New England—New Hampshire, 2 (100-249); Rhode Island, 3 (183); Connecticut, 4 (100-249); East North Central—Indiana, 5 (500-999); Wisconsin, 2 (250-499); West North Central—Iowa, 1 (1-19); Missouri, 3 (100-249); Kansas, 1 (1-19); South Atlantic—Maryland, 1 (1-19); West Virginia, 1 (1-19); North Carolina, 1 (1-19); Florida, 3 (1-19); East South Central—Alabama, 1 (20-99); West South Central—Oklahoma, 1 (1-19); Texas, 4 (20-99); Mountain—Colorado, 1 (100-249); Arizona, 1 (1-19); Utah, 1 (1-19); Pacific—Washington, 5 (20-99); Oregon, 1 (1-19).

SIC 3569, General Industry Machines, N.E.C.: New England—Maine, 1 (100-249); New Hampshire, 2 (250-499); Rhode Island, 3 (177); West North Central—North Dakota, 1 (1-19); South Dakota, 2 (100-249); Nebraska, 3 (149); South Atlantic—Delaware, 1 (1-19); Maryland, 7 (20-99); Virginia, 4 (20-99); West Virginia, 2 (20-99); South Carolina, 2 (20-99); Georgia, 3 (238); East South Central—Kentucky, 5 (250-499); Tennessee, 7 (579); Mississippi, 2 (20-99); West South Central—Arkansas, 3 (20-99); Louisiana, 2 (100-249); Oklahoma, 7 (276); Mountain—Colorado, 2 (20-99); Arizona, 1 (20-99); Utah, 4 (329); Pacific—Washington, 7 (166); Oregon, 6 (20-99).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.



TABLE 3. Detailed Statistics: 1963

Item	Pumps and compressors (SIC 3561)	Ball and roller bearings (SIC 3562)	Blowers and fans (SIC 3564)	Industrial patterns (SIC 3565)	Power transmission equipment (SIC 3566)	Industrial furnaces and ovens (SIC 3567)	General industry machines, n.e.c. (SIC 3569)
Primary product specialization ratio <sup>1</sup> .....	.85	.97	.83	.96	.84	.83	.83
Coverage ratio <sup>2</sup> .....	.86	.98	.79	.80	.79	.85	.70
Establishments, total.....number..	642	125	237	1,209	532	238	777
With 1 to 19 employees.....do....	375	32	140	1,103	260	145	500
With 20 to 99 employees.....do....	140	31	60	99	173	57	206
With 100 employees or more.....do....	127	62	37	7	99	36	71
Proprietors and working partners.....do....	175	17	60	1,008	158	59	213
All employees (average for the year).....do....	61,322	52,316	15,244	9,914	46,670	12,118	35,559
Payroll (all employees), total for year.....\$1,000..	395,769	348,700	94,090	75,605	303,314	83,738	240,816
Production workers:							
Average for the year.....number..	38,934	42,003	10,733	8,685	34,400	6,782	20,332
March.....do....	38,846	42,937	10,669	8,566	33,595	6,830	19,715
May.....do....	38,784	42,566	10,716	8,675	34,328	6,761	20,898
August.....do....	39,223	41,389	10,698	8,597	34,609	6,577	20,325
November.....do....	38,898	41,108	10,841	8,999	35,058	6,971	20,384
Man-hours.....1,000..	80,825	85,970	21,616	17,710	71,101	13,963	40,869
January-March.....do....	19,830	22,076	5,437	4,393	17,587	3,562	9,997
April-June.....do....	20,654	22,439	5,444	4,394	18,130	3,488	10,293
July-September.....do....	19,668	20,184	5,249	4,357	17,053	3,268	10,067
October-December.....do....	20,673	21,276	5,486	4,566	18,331	3,645	10,512
Wages.....\$1,000..	224,721	263,022	57,776	64,877	203,941	38,731	109,354
Cost of materials, etc., total.....do....	660,549	372,267	135,733	29,167	345,058	137,732	272,709
Materials, parts, containers, and supplies consumed.....do....	570,414	343,713	114,795	23,512	290,185	112,956	222,504
Cost of resales.....do....	67,013	11,578	15,154	525	31,668	13,892	16,687
Fuels consumed.....do....	4,975	4,685	951	569	4,033	711	1,973
Electric energy:							
Purchased:							
Quantity.....million kw.-hrs..	434	683	81	38	416	68	326
Cost.....\$1,000..	6,263	7,413	1,381	779	5,951	1,175	4,023
Generated less sold.....million kw.-hrs..	24	-	(D)	(D)	(D)	(D)	(D)
Contract work.....\$1,000..	11,884	4,878	3,452	3,781	13,221	9,038	27,522
Value of shipments (including resales), total.....do....	1,419,081	998,784	315,285	140,696	888,641	279,058	691,280
Value of resales.....do....	84,918	13,804	21,041	1,231	41,631	18,503	28,712
Value added by manufacture, adjusted.....do....	768,787	627,694	180,801	112,587	555,710	143,009	424,084
Manufacturers' inventories:							
Beginning of year, total.....do....	341,790	218,913	55,241	7,078	178,486	37,611	118,172
Finished products.....do....	130,542	70,635	9,268	313	76,915	6,941	33,979
Work-in-process.....do....	142,135	91,348	22,187	4,727	59,215	14,446	42,248
Materials, supplies, fuel, etc.....do....	69,113	56,930	23,796	2,038	42,356	16,224	41,945
End of year, total.....do....	352,147	219,560	53,318	8,430	190,630	38,616	123,420
Finished products.....do....	137,302	65,903	9,327	629	80,130	7,539	32,268
Work-in-process.....do....	145,608	97,257	23,454	5,469	68,127	15,532	49,470
Materials, supplies, fuel, etc.....do....	69,237	56,400	20,537	2,333	42,373	15,546	41,682
Expenditures for plant and equipment, total.....do....	32,296	41,166	7,630	4,214	29,131	5,912	16,569
New, total.....do....	28,417	39,243	6,979	3,794	26,444	4,561	15,102
New structures and additions to plant.....do....	5,649	5,806	2,730	1,333	4,067	1,969	4,623
New machinery and equipment.....do....	22,768	33,437	4,249	2,461	22,377	2,592	10,479
Used plant and equipment.....do....	3,879	1,923	651	420	2,687	1,351	1,467
Selected operating ratios:							
Payroll/Total employment.....	6,454	6,665	6,172	7,626	6,499	6,910	6,772
Production workers/Total employment.....	.63	.80	.70	.88	.74	.56	.57
Man-hours/Production workers.....	2,076	2,047	2,014	2,039	2,067	2,059	2,010
Production worker wages/Man-hours.....	2.78	3.06	2.67	3.66	2.87	2.77	2.68
Cost of materials and payrolls/Total value of shipments.....	.74	.72	.73	.74	.73	.79	.74
Cost of materials/Total value of shipments.....	.47	.37	.43	.21	.39	.49	.39
Adjusted value added/Total employment.....	12,536	11,998	11,894	11,356	11,907	11,801	11,926
Salaries and wages/Adjusted value added.....	.51	.56	.52	.67	.55	.58	.57

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3561.—PUMPS AND COMPRESSORS											
Establishments.....number..	642	198	77	100	93	47	61	38	17	10	1
All employees:											
Total.....do....	61,322	336	499	1,361	2,953	3,356	9,932	13,256	11,332	18,297	(D)
Payroll.....\$1,000..	395,769	1,673	2,708	7,409	18,466	20,899	61,891	84,939	73,641	124,143	(D)
Value added, adjusted.....do....	768,787	3,715	5,423	15,331	36,659	44,762	129,437	167,692	154,906	210,862	(D)
Value of shipments.....do....	1,419,081	7,455	10,475	30,836	67,340	83,066	241,587	305,129	262,335	410,858	(D)
Capital expenditures, new...do....	28,417	179	205	413	727	1,776	4,305	6,359	5,633	8,820	(D)
INDUSTRY 3562.—BALL AND ROLLER BEARINGS											
Establishments.....number..	125	13	4	15	15	16	20	12	15	10	5
All employees:											
Total.....do....	52,316	45	(D)	235	542	1,143	2,863	4,107	10,513	14,783	18,085
Payroll.....\$1,000..	348,700	271	(D)	1,286	3,263	6,309	17,681	30,359	69,185	103,201	117,145
Value added, adjusted.....do....	627,694	389	(D)	2,562	5,374	13,735	32,891	50,456	132,670	188,363	201,254
Value of shipments.....do....	998,784	679	(D)	4,152	9,423	22,445	57,635	77,433	221,688	275,638	329,691
Capital expenditures, new...do....	39,243	35	(D)	353	251	3,525	3,449	4,671	7,648	9,051	10,260
INDUSTRY 3564.—BLOWERS AND FANS											
Establishments.....number..	237	70	35	35	31	29	21	10	4	2	-
All employees:											
Total.....do....	15,244	128	231	459	968	2,067	3,035	3,577	4,779	(D)	-
Payroll.....\$1,000..	94,090	788	1,212	2,615	5,789	12,091	18,261	23,058	30,276	(D)	-
Value added, adjusted.....do....	180,801	1,513	2,224	4,773	10,479	26,678	39,092	50,185	45,857	(D)	-
Value of shipments.....do....	315,285	3,428	4,415	8,563	17,196	48,201	67,590	83,256	82,636	(D)	-
Capital expenditures, new...do....	6,979	83	51	173	360	937	861	1,885	2,629	(D)	-
INDUSTRY 3565.—INDUSTRIAL PATTERNS											
Establishments.....number..	1,209	683	238	182	80	19	6	-	1	-	-
All employees:											
Total.....do....	9,914	1,209	1,555	2,425	2,327	1,236	1,162	-	(D)	-	-
Payroll.....\$1,000..	75,605	7,941	10,667	17,378	17,888	11,051	10,680	-	(D)	-	-
Value added, adjusted.....do....	112,587	16,354	16,496	25,504	24,028	14,711	15,494	-	(D)	-	-
Value of shipments.....do....	140,696	21,640	20,753	31,821	30,492	18,438	17,552	-	(D)	-	-
Capital expenditures, new...do....	3,794	538	365	453	772	1,501	165	-	(D)	-	-
INDUSTRY 3566.—POWER TRANSMISSION EQUIPMENT											
Establishments.....number..	532	129	65	66	112	61	52	29	10	7	1
All employees:											
Total.....do....	46,670	261	456	948	3,558	4,337	8,354	10,053	6,549	12,154	(D)
Payroll.....\$1,000..	303,314	1,571	2,686	5,764	22,282	26,525	52,669	64,359	45,488	81,970	(D)
Value added, adjusted.....do....	555,710	3,111	5,459	10,303	38,041	46,157	101,593	116,555	83,270	151,221	(D)
Value of shipments.....do....	888,641	5,729	8,184	17,362	62,388	78,044	159,944	189,344	139,340	228,306	(D)
Capital expenditures, new...do....	26,444	230	148	403	1,778	1,500	4,705	6,665	4,144	6,871	(D)
INDUSTRY 3567.—INDUSTRIAL FURNACES AND OVENS											
Establishments.....number..	238	68	37	40	37	20	25	8	3	-	-
All employees:											
Total.....do....	12,118	100	253	577	1,068	1,474	3,656	3,008	1,982	-	-
Payroll.....\$1,000..	83,738	722	1,855	3,927	7,174	9,718	25,421	21,437	13,484	-	-
Value added, adjusted.....do....	143,009	1,592	3,498	6,485	11,152	18,106	40,362	37,934	23,880	-	-
Value of shipments.....do....	279,058	2,947	6,429	13,505	22,909	33,599	80,432	72,679	46,559	-	-
Capital expenditures, new...do....	4,561	38	55	140	156	470	1,192	1,885	625	-	-
INDUSTRY 3569.—GENERAL INDUSTRY MACHINES, N.E.C.											
Establishments.....number..	777	230	113	157	131	75	49	12	7	2	1
All employees:											
Total.....do....	35,559	452	757	2,178	4,068	5,069	7,529	4,320	4,286	6,900	(D)
Payroll.....\$1,000..	240,816	2,311	4,349	12,581	24,530	32,219	47,565	27,201	26,758	63,302	(D)
Value added, adjusted.....do....	424,084	4,675	8,955	22,596	47,722	74,905	86,585	56,257	51,332	71,057	(D)
Value of shipments.....do....	691,280	8,715	14,820	40,079	84,210	118,637	141,470	88,487	77,449	117,413	(D)
Capital expenditures, new...do....	15,102	1213	213	838	1,414	2,716	2,740	1,748	2,044	3,176	(D)

- Represents zero. n.e.c. Not elsewhere classified.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

<sup>1</sup>Includes capital expenditures for plants under construction but not in operation which constitute a small proportion of the total for the size class.



TABLE 5A. **Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B+C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3561	Pumps and compressors.....1963.. 1958..	1,419,081 1,114,053	1,070,049 855,661	185,874 128,521	163,158 129,871	85 87	1,249,219 1,015,841	1,070,049 863,465	179,170 152,376	86 85
3562	Ball and roller bearings.....1963.. 1958..	998,784 649,640	946,318 622,896	31,702 10,654	20,764 16,090	97 98	961,032 636,777	946,318 622,896	14,714 13,881	98 98
3564	Blowers and fans.....1963.. 1958..	315,285 271,629	236,709 199,295	50,653 41,512	27,923 30,822	83 83	299,385 252,899	236,709 199,295	62,676 53,604	79 79
3565	Industrial patterns.....1963.. 1958..	140,696 98,343	127,669 90,078	5,871 4,395	7,156 3,870	96 95	159,896 121,279	127,669 90,078	32,227 31,201	80 74
3566	Power transmission equipment.....1963.. 1958..	888,641 630,303	696,038 489,658	129,923 99,084	62,680 41,561	84 83	883,382 622,741	696,038 489,658	187,344 133,083	79 79
3567	Industrial furnaces and ovens.....1963.. 1958..	279,058 204,835	201,778 152,831	40,326 26,661	36,944 25,343	83 85	237,660 184,845	201,788 152,831	35,872 32,014	85 83
3569	General industry machines, n.e.c..1963.. 1958..	691,280 458,280	462,679 344,724	92,594 52,079	136,007 61,477	83 87	664,276 467,391	462,679 344,724	201,597 122,667	70 74

NOTE: See Introduction for an explanation of terms used.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)

miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Pumps and compressors (SIC 3561)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Ball and roller bearings (SIC 3562)	Other industries
	<b>PUMPS AND COMPRESSORS INDUSTRY</b>					<b>BALL AND ROLLER BEARINGS INDUSTRY</b>			
	Total shipments and receipts of the industry.....	(X)	1,419,081	(X)		Total shipments and receipts of the industry.....	(X)	998,784	(X)
	Primary products.....	1,249,219	1,070,049	179,170		Primary products.....	961,032	946,318	14,714
35611	Industrial pumps, except hydraulic fluid power.....	321,896	280,103	141,793					
35612	Hydraulic fluid power pumps and motors.....	134,885	103,432	231,453	35621	Ball bearings, complete.....	388,197	882,821	12,333
35613	Domestic water systems and pumps, including pump jacks and cylinders.....	83,733	77,737	5,996	35622	Roller bearings, complete.....	444,829		
35614	Air and gas compressors, except refrigeration compressors.....	292,301	257,569	334,732	35623	Mounted bearings.....	62,128		
35615	Pumps and compressors, n.e.c., except refrigeration compressors.	147,958	122,800	425,158	35624	Parts and components for ball and roller bearings, including balls and rollers, sold separately.....	62,540	60,159	2,381
35616	Parts and attachments for pumps, air and gas compressors, and pumping equipment.....	250,088	210,258	339,830	25620	Ball and roller bearings, n.s.k....	3,338	3,338	-
35610	Pumps and compressors, n.s.k.....	18,358	18,150	208		Secondary products.....	(X)	31,702	(X)
	Secondary products.....	(X)	185,874	(X)	3566-	Power transmission equipment.....	(X)	4,764	(X)
3321-	Gray iron castings.....	(X)	6,065	(X)	3566-	Other secondary products.....	(X)	726,938	(X)
3443-	Boiler shop products.....	(X)	6,669	(X)		Miscellaneous receipts, total.....	(X)	20,764	(X)
34941	Metal valves for piping systems (except plumbing and heating valves).....	(X)	6,802	(X)		Contract and commission work.....	(X)	385	(X)
34943	Plumbing and heating valves and specialties, except plumbers' brass goods.....	(X)	6,195	(X)		Sales of products bought and resold.....	(X)	13,804	(X)
34944	Other metal valves and fittings, except plumbers' brass goods and fittings.....	(X)	21,988	(X)		Sales of scrap.....	(X)	6,164	(X)
35193	Gas engines (except gas turbines).	(X)	7,177	(X)		Other miscellaneous receipts.....	(X)	411	(X)
35197	Parts and accessories for internal combustion engines.....	(X)	12,047	(X)			All industries	Blowers and fans (SIC 3564)	Other industries
3522-	Farm machinery and equipment.....	(X)	2,591	(X)					
3531-	Construction machinery.....	(X)	9,741	(X)					
3532-	Mining machinery and equipment....	(X)	4,809	(X)					
35332	Other oil and gas field drilling machinery and equipment.....	(X)	2,025	(X)		<b>BLOWERS AND FANS INDUSTRY</b>			
35333	Oil and gas field production machinery and equipment (except pumps).....	(X)	7,261	(X)		Total shipments and receipts of the industry.....	(X)	315,285	(X)
3566-	Power transmission equipment.....	(X)	6,188	(X)		Primary products.....	299,385	236,709	62,676
35690	General industry machinery, n.e.c.	(X)	10,763	(X)					
3585-	Refrigeration machinery.....	(X)	3,479	(X)	35641	Industrial fans and blowers.....	191,235	152,514	838,721
35860	Measuring and dispensing pumps....	(X)	6,881	(X)	35642	Dust collection, air purification equipment, and air washers.....	94,952	71,173	923,779
35990	Carburetors, pistons, and other machine shop products.....	(X)	6,934	(X)	35640	Blowers and fans, n.s.k.....	13,198	13,022	176
3621-	Motors and generators.....	(X)	2,894	(X)		Secondary products.....	(X)	50,653	(X)
37176	Parts and accessories for passenger cars, trucks and busses, shipped to other than motor vehicle manufacturers.....	(X)	2,514	(X)					
37291	Other aircraft parts and auxiliary equipment.....	(X)	3,732	(X)	3433-	Heating equipment, except electric	(X)	9,186	(X)
	Other secondary products.....	(X)	649,119	(X)		Other secondary products.....	(X)	1041,467	(X)
	Miscellaneous receipts.....	(X)	163,158	(X)		Miscellaneous receipts, total.....	(X)	27,923	(X)
	Contract and commission work.....	(X)	8,273	(X)		Contract and commission work.....	(X)	1,058	(X)
	Sales of products bought and resold.....	(X)	84,918	(X)		Sales of products bought and resold.....	(X)	21,041	(X)
	Installation work by manufacturing plant employees.....	(X)	6,698	(X)		Receipts for installation of products.....	(X)	899	(X)
	Research and development.....	(X)	1,292	(X)		Sales of scrap.....	(X)	418	(X)
	Scrap and salable refuse and miscellaneous repair work.....	(X)	49,178	(X)		Receipts for repair work.....	(X)	3,767	(X)
	Other.....	(X)	12,799	(X)		Other miscellaneous receipts.....	(X)	740	(X)

See footnotes at end of table.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Industrial patterns (SIC 3565)	Gray iron foundries (SIC 3321)	Malleable iron foundries (SIC 3322)	Steel foundries (SIC 3323)	Aluminum castings (SIC 3361)	Other industries
INDUSTRIAL PATTERNS INDUSTRY								
35650	Total shipments and receipts of the industry.....	(X)	140,696	(X)	(X)	(X)	(X)	(X)
	Industrial patterns.....	159,896	127,669	9,849	3,264	5,815	5,775	7,524
	Secondary products.....	(X)	5,871	(X)	(X)	(X)	(X)	(X)
	Miscellaneous receipts, total.....	(X)	7,156	(X)	(X)	(X)	(X)	(X)
	Contract and commission work.....	(X)	2,731	(X)	(X)	(X)	(X)	(X)
	Sales of products bought and resold.....	(X)	1,231	(X)	(X)	(X)	(X)	(X)
	Other miscellaneous receipts.....	(X)	3,194	(X)	(X)	(X)	(X)	(X)

Prod. class code	Class of products and miscellaneous receipts	All industries	Power trans- mission equipment (SIC 3566)	Other industries	Prod. class code	Class of products and miscellaneous products	All industries	Industrial furnaces and ovens (SIC 3567)	Other industries
POWER TRANSMISSION EQUIPMENT INDUSTRY					INDUSTRIAL FURNACES AND OVENS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	888,641	(X)		Total shipments and receipts of the industry.....	(X)	279,058	(X)
	Primary products.....	883,382	696,038	187,344		Primary products.....	237,660	201,788	35,872
35661	Plain bearings.....	87,949	54,373	133,576	35671	Electric industrial furnaces and ovens, metal processing.....	44,697	42,527	2,170
35662	Speed changers, industrial high speed drives, and gears.....	333,331	272,832	1260,499	35672	Fuel-fired industrial furnaces and ovens, metal processing.....	76,552	65,890	1510,662
35663	Other mechanical power transmission equipment.....	449,460	356,604	1392,856	35673	High frequency induction and dielectric heating equipment and parts, attachments, and components.....	109,875	87,608	1622,267
35660	Power transmission equipment, n.s.k.....	12,642	12,229	413	35670	Industrial furnaces and ovens, n.s.k.....	6,536	5,763	773
	Secondary products.....	(X)	129,923	(X)		Secondary products.....	(X)	40,326	(X)
33620	Copper and copper-base alloy castings.....	(X)	2,655	(X)	3559-	Special industry machines, n.e.c.	(X)	15,039	(X)
3535-	Conveyors.....	(X)	19,234	(X)		Other secondary products.....	(X)	1725,287	(X)
3717-	Motor vehicles and parts.....	(X)	29,625	(X)		Miscellaneous receipts.....	(X)	36,944	(X)
37291	Other aircraft parts and auxiliary equipment.....	(X)	2,847	(X)		Contract work.....	(X)	1,846	(X)
	Other secondary products.....	(X)	1475,562	(X)		Sales of products bought and resold.....	(X)	18,502	(X)
	Miscellaneous receipts, total.....	(X)	62,680	(X)		Receipts for installation.....	(X)	10,474	(X)
	Contract and commission work.....	(X)	16,368	(X)		Receipts for repair work.....	(X)	3,415	(X)
	Sales of products bought and resold.....	(X)	41,631	(X)	Other miscellaneous receipts.....	(X)	2,707	(X)	
	Sales of scrap and refuse.....	(X)	3,028	(X)					
	Other miscellaneous receipts.....	(X)	1,653	(X)					

Prod. class code	Class of products and miscellaneous receipts	All industries	General industry machines, n.e.c. (SIC 3569)	Boiler shop products (SIC 3443)	Valves and pipe fittings (SIC 3494)	Conveyors (SIC 3535)	Food products machinery (SIC 3551)	Special industry machines, n.e.c. (SIC 3559)	Pumps and compressors (SIC 3561)	Miscellaneous machinery (SIC 3599)	Other industries
GENERAL INDUSTRY MACHINES, N.E.C. INDUSTRY											
35690	Total shipments and receipts of the industry.....	(X)	691,280	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
	General industrial machinery, n.e.c.....	664,276	462,679	12,062	4,548	5,849	10,678	15,854	10,763	13,285	18128,558
	Secondary products.....	(X)	92,594	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
3423-	Hand and edge tools.....	(X)	2,110	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
3429-	Hardware, n.e.c.....	(X)	3,043	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
3443-	Boiler shop products.....	(X)	15,484	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
3494-	Valves and pipe fittings.....	(X)	2,817	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
3542-	Metal-forming machine tools.....	(X)	2,586	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
3548-	Metalworking machinery, n.e.c.....	(X)	6,744	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
3551-	Food products machinery.....	(X)	2,296	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
3559-	Special industry machines, n.e.c.....	(X)	3,975	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
3585-	Refrigeration machinery.....	(X)	4,379	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
35990	Carburetors, pistons, and other machine shop products.....	(X)	6,064	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	General industry machines, n.e.c. (SIC 3569)	Boiler shop products (SIC 3443)	Valves and pipe fittings (SIC 3494)	Conveyors (SIC 3535)	Food products machinery (SIC 3551)	Special industry machines, n.e.c. (SIC 3559)	Pumps and compressors (SIC 3561)	Miscellaneous machinery (SIC 3599)	Other industries
	GENERAL INDUSTRY MACHINES, N.E.C., INDUSTRY—Continued										
	Secondary products—Continued										
37175	Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers.....	(X)	6,461	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
	Other secondary products.....	(X)	1936,635	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
	Miscellaneous receipts.....	(X)	136,007	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
	Contract work.....	(X)	13,996	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
	Sales of products bought and resold....	(X)	28,712	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
	Receipts for research and development work.....	(X)	82,671	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
	Receipts for installation of products..	(X)	2,186	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
	Other miscellaneous receipts.....	(X)	8,442	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Includes \$3.9 million shipped by industry 3494, Valves and Pipe Fittings, \$2.5 million by industry 3531, Construction Machinery, and \$6.9 million by industry 3621, Motors and Generators. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3522, Farm Machinery and Equipment; 3561, Pumps and Compressors; 3541, Metal-Cutting Machine Tools; 3586, Measuring and Dispensing Pumps; 3589, Service Industry Machines, N.E.C.; and, 3731, Ship Building and Repairing.

<sup>2</sup>The following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3494, Valves and Pipe Fittings; 3599, Miscellaneous Machinery; and, 3729, Aircraft Equipment, N.E.C.

<sup>3</sup>The following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3443, Boiler Shop Products; 3511, Steam Engines and Turbines; and, 3519, Internal Combustion Engines.

<sup>4</sup>Includes \$2.1 million shipped by industry 3494, Valves and Pipe Fittings; and \$6.7 million by industry 3533, Oil Field Machinery.

<sup>5</sup>Includes \$3.8 million shipped by industry 3533, Oil Field Machinery. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3519, Internal Combustion Engines; 3621, Motors and Generators; 3644, Noncurrent Carrying Devices; and, 3729, Aircraft Equipment, N.E.C.

<sup>6</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 30692, Rubber hose and tubing; 33230, Steel castings; 34336, Other heating equipment (except electric) and parts for nonelectric heating equipment; 35112, Steam, gas, and hydraulic turbine and parts, steam engines and parts; and 35334, Other oil and gas field machinery and tools (except pumps), including water wells.

<sup>7</sup>Includes the following product classes which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 33620, Copper and copper-base alloy castings; 34990, Fabricated metal products, n.e.c.; 35351, Conveyors and conveying equipment (except hoists and farm elevators); and 37175, Parts and accessories for passenger cars, trucks, and busses, shipped to other than motor vehicle manufacturers.

<sup>8</sup>Includes \$6.8 million shipped by industry 3443, Boiler Shop Products, and \$8.9 million by industry 3585, Refrigeration Machinery. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3444, Sheet Metal Work; 3494, Valves and Pipe Fittings; 3599, Miscellaneous Machinery; and 3621, Motors and Generators.

<sup>9</sup>Includes \$4.9 million shipped by industry 3444, Sheet Metal Work, and \$2.9 million by industry 3585, Refrigeration Machinery. In addition, the following industry had shipments which totaled \$2 million or more but is withheld to avoid disclosing figures for individual companies: 3559, Special Industry Machines, N.E.C.

<sup>10</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 35663, Other mechanical power transmission equipment; 35851, Heat transfer equipment; 36430, Current carrying wiring devices, including lightning rods; and, 36992, Lamp bulb components (except glass flasks) and electrical products.

<sup>11</sup>Includes \$3.8 million shipped by industry 3362, Brass, Bronze, Copper Castings; \$3.8 million by industry 3562, Ball and Roller Bearings; and \$14.4 million by industry 3717, Motor Vehicles and Parts. In addition, the following industry had shipments which totaled \$2 million or more but is withheld to avoid disclosing figures for individual companies: 3722, Aircraft Engines and Parts.

<sup>12</sup>Includes \$3.4 million shipped by industry 3541, Metal-Cutting Machine Tools, and \$21.6 million by industry 3621, Motors and Generators. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3511, Steam Engines and Turbines; 3533, Oil Field Machinery; 3548, Metalworking Machinery, N.E.C.; 3561, Pumps and Compressors; 3717, Motor Vehicles and Parts; 3729, Aircraft Equipment, N.E.C.

<sup>13</sup>Includes \$17.2 million shipped by industry 3717, Motor Vehicles and Parts. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3431, Metal Plumbing Fixtures; 3532, Mining Machinery and Equipment; 3535, Conveyors; 3554, Paper Industries Machinery; 3564, Blowers and Fans; 3722, Aircraft Engines and Parts; and 3821, Mechanical Measuring Devices.

<sup>14</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 33230, Steel castings; 35370, Industrial trucks and tractors; and 35623, Mounted bearings.

<sup>15</sup>The following industry had shipments which totaled \$2 million or more but is withheld to avoid disclosing figures for individual companies: 3441, Fabricated Structural Steel.

<sup>16</sup>The following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3446, Architectural Metal Work; 3693, X-Ray Apparatus and Tubes; and 3717, Motor Vehicles and Parts.

<sup>17</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 35322, Crushing, pulverizing, and screening plants, stationary, and 38213, Industrial process instruments.

<sup>18</sup>The following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3079, Plastics Products, N.E.C.; 3296, Mineral Wool; 3444, Sheet Metal Work; 3498, Fabricated Pipe and Fittings; 3522, Farm Machinery and Equipment; 3531, Construction Machinery; 3532, Mining Machinery and Equipment; 3534, Elevators and Moving Stairways; 3541, Metal-Cutting Machine Tools; 3582, Commercial Laundry Equipment; 3585, Refrigeration Machinery; 3621, Motors and Generators; 3731, Ship Building and Repairing; and 3821, Mechanical Measuring Devices.

<sup>19</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 28993, Essential oils, fireworks, and pyrotechnics, chemicals and chemical preparations, n.e.c.; 34612, Job stampings, except automotive.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3561- --	PUMPS AND COMPRESSORS, TOTAL <sup>1</sup> .....	(X)	1,249,219	(X)	<sup>1</sup> 1,015,841
35611 --	Industrial pumps, except hydraulic fluid power:				
	As reported in the census of manufactures.....	(X)	<sup>2</sup> 321,896	(X)	295,373
	As reported on Census Annual Form MA-35P.....	(X)	<sup>2</sup> 320,795	(X)	(NA)
	Value of drivers (reported separately).....	(X)	<sup>3</sup> 71,822	(X)	(NA)
	Reciprocating pumps:				
35611 01	Direct acting steam driven.....	2,195	3,190	1,923	4,609
35611 03	Power operated, other than steam.....	58,794	20,147	45,485	16,716
35611 07	Turbine pumps, vertical (including deep well).....	21,239	31,214	18,217	36,310
	Centrifugal pumps:				
	Single stage, single suction, close coupled:				
35611 11	1/2" discharge outlet and under.....	35,372	1,443	166,882	10,575
35611 12	3/4" and 1" discharge outlet.....	136,200	6,169		
35611 14	1-1/4" and 1-1/2" discharge outlet.....	111,355	8,194	58,772	7,295
35611 15	2" and 2-1/2" discharge outlet.....	41,774	5,891	26,783	5,692
35611 16	3" and 4" discharge outlet.....	22,897	6,527	13,144	6,005
35611 19	Over 4" discharge outlet.....	4,212	2,800	2,614	2,308
	Single stage, single suction, frame mounted:				
35611 21	1/2" discharge outlet and under.....	13,567	495	129,573	7,180
35611 22	3/4" and 1" discharge outlet.....	142,070	7,184		
35611 23	1-1/4" and 1-1/2" discharge outlet.....	213,583	11,634	148,253	11,273
35611 24	2" and 2-1/2" discharge outlet.....	43,008	7,776	34,515	7,180
35611 25	3" discharge outlet.....	24,173	6,071	19,915	5,824
35611 26	4" to 6" discharge outlet.....	16,329	9,485	9,117	7,992
35611 29	Over 6" discharge outlet.....	2,072	4,819	1,244	2,515
	Single stage, double suction:				
35611 42	Under 4" discharge outlet.....	9,896	2,685	5,460	2,934
35611 44	4" and 5" discharge outlet.....	4,138	3,728	4,089	4,969
35611 46	6" and 7" discharge outlet.....	2,012	2,068	1,480	2,491
35611 48	8" and 12" discharge outlet.....	2,145	4,756	2,004	6,166
35611 49	Over 12" discharge outlet.....	431	3,160	525	5,289
	Multistage (single or double suction):				
35611 52	1-1/2" discharge outlet and under.....	9,495	1,546	8,273	4,692
35611 54	2" and 3" discharge outlet.....	3,992	5,614	2,581	7,685
35611 56	4" and 5" discharge outlet.....	1,455	4,585	829	4,909
35611 58	6" and 7" discharge outlet.....	978	4,757	535	5,234
35611 59	8" and over discharge outlet.....	535	11,449	222	5,098
	Propeller and mixed flow:				
35611 62	20" and under.....	1,577	3,925	1,649	5,910
35611 64	Over 20".....	538	7,023		
	All other centrifugal pumps (including can, etc.):				
35611 65	1-1/2" discharge outlet and under.....	136,906	3,668	(NA)	44,889
35611 66	2" to 6" discharge outlet.....	25,381	7,255		
35611 69	Over 6" discharge outlet.....	2,409	10,482		
	Rotary pumps:				
	100 p.s.i. and under, designed pressure:				
35611 72	10 g.p.m. and under, designed capacity.....	251,293	5,872	351,120	5,836
35611 73	11-299 g.p.m. designed capacity.....	93,893	8,413	122,712	9,041
35611 74	300 g.p.m. and over, designed capacity.....	4,226	1,315	1,616	1,279
35611 75	101-250 p.s.i. designed pressure.....	153,632	10,002	117,764	7,040
35611 76	251-500 p.s.i. designed pressure.....	72,524	4,301	27,000	3,100
35611 79	Over 500 p.s.i. designed pressure.....	7,754	1,197	6,759	1,641
35611 98	Other industrial pumps.....	42,371	8,133	(NA)	20,513
35611 00	Industrial pumps, n.s.k.....	(X)	-	(X)	15,183
35612 --	Hydraulic fluid power pumps and motors:				
	As reported in the census of manufactures.....	(X)	<sup>2</sup> 134,885	(X)	76,769
	As reported on Census Annual Form MA-35P.....	(X)	<sup>2</sup> 134,023	(X)	(NA)
	Value of drivers (reported separately).....	(X)	<sup>3</sup> 7,486	(X)	(NA)
	Hydraulic fluid power pumps and motors:				
35612 81	Gear type.....	974,731	35,663	519,036	21,292
35612 83	Vane type.....	<sup>4</sup> 306,210	<sup>4</sup> 21,204	829,887	26,756
	Piston type:				
35612 85	Axial.....	88,583	38,157	42,026	17,744
35612 87	Rotary or radial.....	12,915	12,267		
	Vacuum pumps (except laboratory):				
35612 91	Wet.....	32,925	9,829	18,988	10,977
35612 92	Dry.....	75,731	9,417	( <sup>5</sup> )	( <sup>5</sup> )

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
35613 --	Domestic water systems and pumps, including pump jacks and cylinders:				
	As reported in the census of manufactures.....	(X)	<sup>2</sup> 83,733	(X)	<sup>2</sup> 67,656
	As reported on Census Forms M35G, total.....	(X)	<sup>2</sup> 79,403	(X)	<sup>2</sup> 66,474
	Domestic water systems:				
	Jet pump systems:				
	Deep well (except submersible):				
35613 03	1/3 hp. and under.....	24,023	1,274	25,397	1,649
35613 04	1/2 hp.....	62,961	4,012	67,870	5,266
35613 05	3/4-1 hp.....	77,529	6,332	51,203	5,339
35613 06	Over 1 hp.....	8,881	1,217	7,939	1,595
	Shallow well:				
35613 07	1/3 hp. and under.....	160,938	8,146	134,898	8,178
35613 08	1/2 hp.....	53,885	3,225	35,396	2,510
35613 09	3/4-1 hp.....	9,963	702	9,812	861
35613 11	Over 1 hp.....	3,860	383	2,748	289
	Convertible jet:				
35613 12	1/3 hp. and under.....	77,586	4,510	79,031	4,988
35613 13	1/2 hp.....	124,615	8,236	87,217	6,773
35613 14	3/4-1 hp.....	50,894	4,256	19,601	2,017
35613 15	Over 1 hp.....	2,544	356	1,145	219
	Nonjet pumps systems (except submersible):				
	Deep well:				
35613 16	Under 1 hp.....	8,617	807	14,440	1,612
35613 17	1/3 hp.....	747	136	1,018	176
35613 18	Over 3 hp.....	586	574	119	184
	Shallow well:				
35613 21	Under 250 gph.....	40,389	2,544	872	62
35613 22	250-499 gph.....			65,810	4,098
35613 23	500 gph. and over.....			12,821	1,479
	Submersible pump systems:				
35613 24	1/3 hp. and under.....	34,392	3,513	8,673	1,050
35613 25	1/2 hp.....	70,994	8,182	28,816	4,415
35613 26	3/4-1 hp.....	67,712	10,538	30,228	6,227
35613 27	Over 1 hp. up to and including 5 hp.....	27,602	7,664	9,916	4,988
	Domestic hand and windmill pumps:				
35613 31	Pitcher.....	84,205	415	85,127	363
35613 33	Other hand and windmill pumps.....	20,332	417	25,524	502
35613 40	Pump jacks.....	12,299	443	14,382	469
35613 60	Cylinders, sold separately.....	70,496	743	95,827	1,165
35614 --	Air and gas-compressors, except refrigeration compressors:				
	As reported in the census of manufactures.....	(X)	<sup>2</sup> 292,301	(X)	260,226
	As reported on Census Annual Form MA-35P.....	(X)	<sup>2</sup> 285,878	(X)	(NA)
	Value of drivers (reported separately).....	(X)	<sup>3</sup> 28,927	(X)	(NA)
	Air compressors:				
	Stationary:				
35614 11	1-1/2hp. and under.....	113,969	9,748	91,973	9,349
35614 12	Over 1-1/2-5 hp.....	38,970	11,714	37,095	14,584
35614 13	6-15 hp.....	13,229	9,861	8,483	9,453
35614 15	16-100 hp.....	7,859	27,150	5,838	27,950
35614 16	101-250 hp.....	1,436	16,333	818	9,639
35614 17	251-1,000 hp.....	255	8,211	262	11,483
35614 19	Over 1,000 hp.....	31	5,466	47	5,894
	Portable:				
35614 31	Under 75 c.f.m.....	60,351	9,352	47,295	25,639
35614 32	75-150 c.f.m.....	6,323	18,370		
35614 33	151-400 c.f.m.....	674	5,654	1,134	8,891
35614 35	Over 400 c.f.m.....	1,036	18,660	973	14,953
	Gas compressors:				
35614 41	Centrifugal and axial.....	419	27,695	639	35,176
	Reciprocating and rotary:				
	Integral diesel, or gas-engine powered (reciprocating):				
35614 52	250 hp. and under.....	344	<sup>6</sup> 3,100	685	4,807
35614 55	251-1,000 hp.....	164	<sup>6</sup> 14,134	374	29,244
35614 57	Over 1,000 hp.....	182	<sup>6</sup> 43,032	177	33,209
	Other than integral engine powered (reciprocating and rotary):				
35614 62	250 hp. and under.....	1,856	6,401	275	2,098
35614 65	251-1,000 hp.....	269	7,954	183	14,347
35614 67	Over 1,000 hp.....	48	5,247		
35614 97	Other compressors <sup>7</sup> .....	155,318	8,869	(X)	( <sup>5</sup> )
35614 00	Compressors, n.s.k.....	(X)	-	(X)	3,510

See footnotes at end of table.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
35615 --	Pumps and compressors, n.e.c., except refrigeration compressors, total... Products included in the census of manufactures and on Census Annual Form MA-35P: As reported in the census of manufactures <sup>8</sup> ..... As reported on Census Form MA-35P.....  Value of drivers (reported separately).....  Oil-well and oil-field pumps (except boiler-feed): Subsurface pumps for oil-well pumping..... 35615 11 Slush pumps..... 35615 13 35615 15 Other oil-well and oil-field pumps..... 35615 96 Other pumps (except automotive) (such as oil burner and appliance pumps, fire engine pumps, laboratory pumps, sump pumps, etc.)....  Industrial spraying equipment: Power paint-spraying outfits and liquid power sprayers, except agricultural types..... 35615 51 Hand sprayers, except agricultural and flame types.....  35615 00 Pumps and compressors, n.s.k.....  35616 11 Parts and attachments for pumps, air and gas compressors, and pumping equipment..... 35610 00 Pumps and compressors, n.s.k.....	(X)  (X) (X)  (X)       (X) (NA)  (X)   (X) (X)  (X)  (X)  (X)	147,958  286,858 277,045  35,329                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            		

See footnotes at end of table.

TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Value of total shipments including interplant transfers (\$1,000)	
		1963	1958
3564--	BLOWERS AND FANS, TOTAL.....	299,385	252,899
35641--	Industrial fans and blowers, including blowers, industrial, exhaust, attic, and ventilating fans, and parts:		
35641 11	As reported in the census of manufactures <sup>2</sup> .....	191,235	170,636
	As reported on Census Quarterly Form M35H, total <sup>2</sup> .....	192,674	160,686
	Fans and blowers group.....	164,173	141,009
	Axial fans (vaneaxial and tubeaxial), total.....	19,450	11,150
35641 13	Directly connected to driver.....	15,852	7,930
35641 15	Belt driven.....	3,598	3,220
	Centrifugal fans and blowers, total.....	97,789	85,690
35641 17	Blower filter units.....	3,291	2,538
35641 19	Classes I and II fans.....	17,528	17,864
35641 21	Classes III and IV fans.....	9,294	13,772
35641 23	Furnaces and light weight air-conditioning blowers.....	9,412	13,075
35641 25	Industrial fans, excluding positive displacement blowers and turbo-blowers.....	26,087	10,132
35641 27	Positive displacement blowers (excluding turbo-blowers).....	10,370	15,783
35641 29	Turbo-blowers (single stage, single and double-inlet).....	11,033	
35641 31	Small housed blowers (utility sets).....	10,774	12,526
	Industrial propeller fans.....	21,793	21,639
35641 33	Directly connected to driver, excluding window-type household exhaust fans, built-in household and kitchen ventilating and exhaust fans, and all free-air circulating fans.....	8,611	11,357
35641 35	Belt driven.....	9,261	6,785
35641 37	Penthouses, shutter, guards, and other accessories for industrial propeller fans.....	3,921	3,497
35641 39	Parts for industrial fans and blowers.....	25,141	22,530
	Power roof ventilators group.....	28,501	19,677
35641 41	Axial and propeller type.....	14,344	7,408
35641 43	Centrifugal type.....	13,754	12,175
35641 45	Parts for power roof ventilators.....	403	94
35642--	Dust collection, and air purification equipment and air washers, total.....	94,952	70,064
	Air washers:		
35642 31	As reported in census of manufactures <sup>2</sup> .....	3,881	3,250
	As reported on Census Quarterly Form M35H <sup>2</sup> .....	3,605	2,368
	Dust collection and other air purification equipment:		
35642 53	Electrostatic precipitation equipment.....	21,755	66,814
35642 55	Other dust collection and other air purification equipment.....	66,540	
35642 00	Dust collection and air purification equipment and air washers, n.s.k.....	2,776	-
35640 00	Blowers and fans, n.s.k.....	13,198	12,199
3565--	INDUSTRIAL PATTERNS, TOTAL <sup>13</sup> .....	159,896	121,279
35650 11	Foundry patterns (wood, metal, etc.).....	105,572	94,225
35650 98	All other industrial patterns (wood, metal, etc.) (except shoe patterns).....	28,108	8,798
35650 00	Industrial patterns, n.s.k.....	26,216	18,256
		Total shipments including interplant transfers	
		1963	
		Quantity (number of units)	1958 value <sup>14</sup>
			(\$1,000)
3566--	MECHANICAL POWER TRANSMISSION EQUIPMENT, EXCEPT BALL AND ROLLER BEARINGS, TOTAL.....	(X)	883,382
35661--	Plain bearings.....	(X)	87,949
35661 15	Plain bearings and bushings, unmounted, machined, excluding carbon and graphite, all types, except automotive.....	(X)	77,360
35661 51	Mounted bearings, plain.....	(X)	10,169
35661 00	Plain bearings, n.s.k.....	(X)	420
			2,880

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3566- --	MECHANICAL POWER TRANSMISSION EQUIPMENT, EXCEPT BALL AND ROLLER BEARINGS--Continued				
35662 --	Speed changers, industrial high speed drives, and gears.....	(X)	333,331		234,151
	Gears, assembled and unassembled, speed reducers and increasers, mechanical power transmissions, except marine, automobile, truck, bus and aircraft (excludes aircraft, related engine and power take-off gears):				
35662 11	Variable speed changers.....	79,462	17,138		17,901
35662 21	Industrial high speed drives, fixed rates (pitch line velocity 4,000 feet per minute).....	(NA)	12,344		18,871
	Speed reducers, fixed rates, enclosed (except gear motors):				
	Worm gear speed reducers (except gear motors and shaft mounted speed reducers):				
35662 23	Above 3 inch center distance.....	(NA)	17,922	}	24,716
35662 24	3 inch center distance and below.....	161,813	12,045		
35662 26	Shaft mounted speed reducers (excludes shaft mounted gear motors but includes shaft mounted worm gear reducers).....	87,228	15,475	}	27,280
35662 27	Parallel, concentric shaft and level gear speed reducers:				
35662 28	Above 15 inch low speed centers.....	8,200	16,912		
	15 inch low speed centers and below.....	(NA)	17,228		
	Gear motor reducer elements, including shaft mounted gear motors:				
35662 34	Under 1/8 horsepower.....	(NA)	1515,732		158,237
35662 36	1/8 horsepower to but not including 3/4 horsepower.....	236,848	1514,955		1514,105
35662 37	3/4 horsepower to and including 5 horsepower.....	129,109	1518,750		1518,831
35662 39	Over 5 horsepower.....	77,383	1516,747		158,946
	Gears, pinions and racks, unmounted:				
35662 41	Fine pitch (20.00 diametral pitch and higher).....	(X)	34,030		27,166
35662 49	Other than fine pitch (19.99 diametral pitch and less) excluding aircraft and related engine and power take-off gears but including railway type pinions, and racks.....	(X)	113,004		47,191
35662 00	Speed changers, gears and industrial high speed drives, n.s.k.....	(X)	11,049		20,907
35663 --	Other mechanical power-transmission equipment.....	(X)	449,460		310,418
35663 11	Friction type clutches.....	(NA)	25,473		26,281
35663 13	Hydraulic type clutches including hydraulic couplings.....	(NA)	9,697		14,489
	Flexible couplings (1 inch nominal bore and over) (except hydraulic):				
35663 21	Gear type.....	68,883	10,285	}	22,553
35663 22	Other than gear type.....	542,544	14,581		
35663 24	Flexible couplings (less than 1 inch nominal bore) (except hydraulic)...	498,635	2,176		
35663 25	Universal joints.....	3,204,420	29,242		26,590
35663 31	Chains for sprocket drives.....	(X)	98,922		81,622
35663 41	Sprockets.....	(X)	29,019		22,308
35663 51	Pulleys.....	(NA)	17,563		7,787
	Sheaves:				
35663 61	Single drive.....	(NA)	5,562		4,289
35663 65	Multiple drive.....	(NA)	15,252		9,456
35663 87	Railroad car journal bearings.....	(NA)	8,694		10,856
35663 91	Marine gear transmissions (less than 600 horsepower) (includes reversing and speed changing gear drives).....	(X)	11,153	}	77,301
35663 98	Other mechanical power-transmission equipment (except aircraft, automobile, truck, and bus).....	(X)	163,418		
35663 00	Other mechanical power-transmission equipment, n.s.k.....	(X)	8,423		6,886
35660 00	Mechanical power-transmission equipment, including bearings, n.s.k.....	(X)	12,642		11,125
Total shipments including interplant transfers					
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3567- --	INDUSTRIAL PROCESS FURNACES AND OVENS, TOTAL <sup>16</sup> .....	(X)	17237,660	(X)	17184,845
35671 --	Electric industrial furnaces and ovens, metal processing, total.....	(X)	44,697	(X)	35,665
	Electric furnaces, excluding induction:				
35671 11	Metal melting.....	202	8,051	348	9,987
35671 21	Metal processing and heat treating (such as annealing, hardening, carburizing, and porcelain enameling furnaces).....	3,242	25,740	2,444	18,675
35671 43	Electric, including infrared industrial ovens.....	11,338	10,378	(NA)	6,019
35671 00	Electric industrial furnaces and ovens, metal processing, n.s.k.....	(X)	528	(X)	984

See footnotes at end of table

TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3567- --	INDUSTRIAL PROCESS FURNACES AND OVENS <sup>16</sup> --Continued				
35672 --	Fuel-fired industrial furnaces and ovens, metal processing, total.....	(X)	76,552	(X)	75,456
35672 11	Metal melting, including blast furnaces and cupolas.....	592	6,810	407	5,952
35672 21	Metal processing and heat treating (such as annealing, hardening, carburizing, and porcelain enameling furnaces).....	1,498	29,610	1,377	50,645
35672 61	Hot rolling, forging, forming and extruding.....	559	21,013		
35672 41	Industrial ovens.....	2,095	18,300		
35672 00	Fuel-fired industrial furnaces and ovens, metal processing.....	(X)	819	(X)	2,018
35673 --	High frequency induction and dielectric heating equipment and parts, attachments and components, total.....	(X)	109,875	(X)	67,652
	Induction furnaces and heating equipment:				
35673 13	Radio frequency types including spark gap.....	1,110	7,652	(NA)	7,452
35673 15	Line and motor-generators set frequency types.....	(NA)	10,988	(NA)	3,494
	Other electrical equipment for industrial use, except soldering irons: Industrial electric heating units and devices (except heating units for electric furnaces):				
35673 51	Tubular heaters.....	(X)	5,246	(X)	2,200
35673 31	Dielectric heating equipment.....	(X)	15,018	(X)	4,172
35673 59	All other industrial electric heating units and devices (including strip, space, and ring heaters; water and all immersion heaters; glue and compound pots; etc.).....	(X)	24,669	(X)	16,222
35673 91	Parts, attachments, and components for industrial furnaces and ovens, including electric heating units (sold separately).....	(X)	45,326	(X)	33,515
35673 00	High frequency induction and dielectric heating equipment and parts, attachments and components, n.s.k.....	(X)	976	(X)	597
35670 00	Industrial process furnaces and ovens, n.s.k.....	(X)	6,536	(X)	6,072
		Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	value <sup>14</sup> (\$1,000)	
3569- --	GENERAL INDUSTRIAL MACHINERY, N.E.C., TOTAL.....	(X)	664,276	467,391	
	Packaging and wrapping machines (except for food, tobacco, liquor, wine, beer, and dairy products):				
35690 12	Filling-capping machines, including collapsible tube filling, closing, sealing machines.....	1,379	4,773	22,034	46,449
35690 13	Aerosol packaging machines.....	6,538			
35690 14	Bag and pouch forming, filling, and sealing machines.....				
35690 19	Other wrapping and packaging machinery, such as bundling, banding, unit packaging and tablet wadding.....	(X)	31,636	6,736	387,835
35690 25	Box, case, carton, and tray setting up, loading, lining, closing and sealing machines.....	726			
35690 26	Labeling and marking machines (except for food, tobacco, liquor, beer, wine, and dairy products).....	3,716	7,782		
	General industrial machinery and equipment, n.e.c.:				
35690 94	Gas generating equipment.....	(X)	19,594	351,313	33,107
35690 95	Filters and strainers.....	(X)	117,061		
35690 96	Centrifugals and separators (except cream, grain and berry separators).....	(X)	20,727		
35690 97	Hydraulic jacks.....	77,641	23,217	59,403	
35690 98	All other general industrial machinery and equipment.....	(X)	351,313		
35690 00	General industrial machinery, n.s.k.....	(X)	59,403		

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>The value figure for each product line in 1958 included both the value of the pump or compressor and the value of the drivers when shipped with the driven unit. See footnote 3 for explanation of reporting such values in 1963.

<sup>2</sup>For these products, data were also collected in the Census Commodity Survey Program. In lieu of asking for detailed statistics on these products in the census of manufactures, respondents were asked to report only value of shipments for specified classes of products for which separate figures had previously been collected on the annual, quarterly, or monthly form. In most cases, the value figures reported in the census of manufactures for each class of product agreed closely with the corresponding figures reported in the commodity surveys. However, there were some differences between the census figures and the commodity survey figures. These variations were due primarily to the following reasons:

- Use of different reporting periods (calendar year vs. fiscal year).
- Use of different bases for reporting value (company sales vs. factory production).
- Use of estimates in reporting data on the commodity surveys, whereas census of manufactures figures generally represent more exact shipments figures.

Footnotes continued on next page.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Footnotes for Table 6A--35E--Continued

<sup>3</sup>The value of drivers was reported only at the product class level. For each product line, value figures exclude, except as noted for codes 3561452-57, the value of drivers (electric motors or prime movers) shipped with that product. Separate data on the value of drivers are not available for product class 35613. See footnote 1 for explanation of reporting such values in 1958.

<sup>4</sup>Does not include hydraulic fluid power pumps for power steering units in passenger automobiles. In 1958 such data are included.

<sup>5</sup>Included with product code 3561596, Other pumps.

<sup>6</sup>Includes the value of drivers.

<sup>7</sup>Includes compressors for air brake systems used in transportation equipment and pneumatic (air) power compressors and motors.

<sup>8</sup>Data reported in the census of manufactures differ from comparable figures reported in Annual Survey MA-35P chiefly due to companies not included in the Annual Survey. In addition, there were minor differences between figures for a few companies reporting in the two surveys.

<sup>9</sup>Represents "Other pumps and compressors" and includes dry vacuum pumps. No separate figures are available for "Other pumps" compared with "Other compressors."

<sup>10</sup>Of these totals, the following figures (in millions of dollars) represent the value of shipments of ball and roller bearings transferred from one plant of a company to another plant of the same company:

Product code	1963	1958
3562-	108	86
35621	13	21
35622	95	65
35623		
35624		

<sup>11</sup>In 1963 represents 8,043 thousand units; for 1958 represents 4,911 thousand units.

<sup>12</sup>In 1963 represents 934 thousand units; for 1958 represents 771 thousand units.

<sup>13</sup>Excludes captive production of industrial patterns.

<sup>14</sup>No quantity data available for 1958.

<sup>15</sup>Represents the value of gear motor reducer elements only. Does not include the value of electric motors shipped as part of gear motor reducer elements.

<sup>16</sup>Represents shipments of industrial furnaces and ovens produced by manufacturing establishments only. Does not include industrial furnaces and ovens erected at the site by engineering and construction firms which purchase component parts for such furnaces and ovens.

<sup>17</sup>Establishments classified in industry 3567 reported a breakdown of shipments of industrial furnaces and ovens between "Field assembled" and "Factory assembled" installations. For 1963 the total of \$216 million of industrial furnaces and ovens and parts reported by establishments classified in industry 3567, "Field assembled" amounted to \$89 million and "Factory assembled" \$127 million. In 1958 the comparable figures were "Field assembled" \$66 million and "Factory assembled" \$73 million. "Field assembled" represents installations erected at the site by the manufacturer, either using his own labor force or utilizing local labor under the supervision of the manufacturer's factory personnel.

**TABLE 6B. Product Classes—Indexes of Production and  
Unit Value for Primary Products Shipped by  
All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
356	General industrial machinery.....1963.. 1958..	( <sup>1</sup> ) ( <sup>1</sup> )	( <sup>1</sup> ) ( <sup>1</sup> )
3561	Pumps and compressors <sup>2</sup> .....1963.. 1958..	147 101	95 113
35611	Industrial pumps, except hydraulic fluid power...1963.. 1958..	142 101	86 110
35612	Hydraulic fluid power pumps and motors.....1963.. 1958..	207 112	91 96
35613	Domestic water systems and pumps, including pump jacks and cylinders.....1963.. 1958..	143 98	89 91
35614	Air and gas compressors, except refrigeration compressors.....1963.. 1958..	118 95	112 125
3562	Ball and roller bearings.....1963.. 1958..	( <sup>1</sup> ) ( <sup>1</sup> )	( <sup>1</sup> ) ( <sup>1</sup> )
3564	Blowers and fans.....1963.. 1958..	( <sup>1</sup> ) ( <sup>1</sup> )	( <sup>1</sup> ) ( <sup>1</sup> )
3565	Industrial patterns.....1963.. 1958..	( <sup>1</sup> ) ( <sup>1</sup> )	( <sup>1</sup> ) ( <sup>1</sup> )
3567	Industrial process furnaces and ovens <sup>3</sup> .....1963.. 1958..	126 91	111 114
35671	Electric industrial furnaces and ovens, metal processing.....1963.. 1958..	92 86	176 114
35672	Fuel-fired industrial furnaces and ovens, metal processing.....1963.. 1958..	116 88	89 114
3569	General industrial machinery and equipment, n.e.c...1963.. 1958..	( <sup>1</sup> ) ( <sup>1</sup> )	( <sup>1</sup> ) ( <sup>1</sup> )

n.e.c. Not elsewhere classified.

<sup>1</sup>Not shown because comparable quantity data were not obtained for a significant portion of these products.

<sup>2</sup>Adjusted to include pumps and compressors, n.e.c., except refrigerator compressors (product class 35615) and parts and attachments for pumps, air and gas compressors, and pumping equipment (product class 35616).

<sup>3</sup>Adjusted to include product class 35673 (high frequency induction and dielectric heating equipment and parts, attachments and components).



TABLE 6C. **Product Classes—Value Shipped by All Manufacturing Establishments:**  
**1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3561-	Pumps and compressors.....	<sup>2</sup> 1,236,503	<sup>2</sup> 1,161,143	<sup>2</sup> 1,083,963	<sup>2</sup> 1,092,572	<sup>2</sup> 1,068,597	1,015,841	867,400	524,389
35611	Industrial pumps, except hydraulic fluid power.....	<sup>3</sup> 320,795	<sup>3</sup> 306,431	<sup>3</sup> 300,315	<sup>3</sup> 304,740	293,292	295,373	} 316,384	163,173
35612	Hydraulic fluid power pumps and motors.....	<sup>3</sup> 134,023	<sup>3</sup> 116,633	<sup>3</sup> 93,931	<sup>3</sup> 95,862	105,682	76,769		
35613	Domestic water systems and pumps, including pump jacks and cylinders.....	<sup>3</sup> 79,403	<sup>3</sup> 65,135	<sup>3</sup> 64,958	<sup>3</sup> 61,638	<sup>3</sup> 72,063	67,656	80,044	61,600
35614	Air and gas compressors, except refrigeration compressors.....	<sup>3</sup> 285,878	<sup>3</sup> 289,663	<sup>3</sup> 276,704	<sup>3</sup> 290,416	264,780	260,226	220,248	130,859
35615	Pumps and compressors, n.e.c., except refrigeration compressors.....	147,958	141,806	125,482	127,952	133,478	123,889	101,148	90,703
35616	Parts and attachments for pumps, air and gas compressors, and pumping equipment.....	250,088	226,935	210,239	199,052	187,581	180,166	145,022	78,054
35610	Pumps and compressors, n.s.k.....	18,358	(14,540)	(12,334)	(12,912)	(11,721)	11,762	4,554	-
3562-	Ball and roller bearings.....	<sup>2</sup> 961,032	<sup>2</sup> 937,862	<sup>2</sup> 799,732	<sup>2</sup> 836,201	<sup>2</sup> 904,588	636,777	533,796	352,501
35621	Ball bearings, complete.....	388,197	388,161	343,622	358,089	395,520	289,073	213,694	148,460
35622	Roller bearings, complete.....	444,829	420,986	344,143	369,854	394,257	269,316	248,430	147,569
35623	Mounted bearings.....	62,128	68,618	60,842	59,421	60,120	34,984	25,910	18,097
35624	Parts and components for ball and roller bearings, including balls and rollers, sold separately.....	62,540	58,028	49,056	46,774	52,628	41,069	45,146	37,226
35620	Ball and roller bearings, n.s.k.....	3,338	(2,069)	(2,069)	(2,063)	(2,063)	2,335	616	1,149
3564-	Blowers and fans.....	<sup>2</sup> 300,824	<sup>2</sup> 289,133	<sup>2</sup> 273,899	<sup>2</sup> 275,059	<sup>2</sup> 246,791	252,899	274,045	129,913
35641	Industrial fans and blowers.....	<sup>3</sup> 192,674	<sup>3</sup> 192,344	<sup>3</sup> 183,129	<sup>3</sup> 186,299	<sup>3</sup> 162,412	170,636	} 274,045	129,913
35642	Dust collection, air purification equipment and air washers.....	94,952	83,393	78,199	76,201	73,345	70,064		
35640	Blowers and fans, n.s.k.....	13,198	(13,396)	12,571	(12,559)	(11,034)	12,199	-	-
35650	Industrial patterns, except shoe (of wood, metal, etc.).....	159,896	147,536	122,552	139,564	126,836	121,279	127,572	53,765
3566-	Power transmission equipment.....	883,382	803,854	718,115	711,034	738,979	622,741	595,019	426,713
35661	Plain bearings.....	87,949	72,634	65,869	72,713	81,472	67,047	141,834	120,354
35662	Speed changers, industrial high speed drives, and gears.....	333,331	295,522	276,197	276,305	273,379	234,151	218,193	124,614
35663	Other mechanical power transmission equipment.....	449,460	420,398	357,122	347,727	371,088	310,418	234,992	181,745
35660	Power transmission equipment, n.s.k.....	12,642	(15,300)	(18,927)	(14,289)	(13,040)	11,125	-	-
3567-	Industrial furnaces and ovens.....	237,660	193,251	185,061	214,551	197,436	184,845	154,284	84,612
35671	Electric industrial furnaces and ovens, metal processing.....	44,697	47,065	45,292	46,368	39,948	35,665	37,915	16,303
35672	Fuel-fired industrial furnaces and ovens, metal processing.....	76,552	59,987	50,977	76,737	65,576	75,456	81,919	34,362
35673	High frequency induction and dielectric heating equipment and parts, attachments and components.....	109,875	78,225	79,012	84,483	85,557	67,652	32,553	23,215
35670	Industrial furnaces and ovens, n.s.k.....	6,536	(7,974)	(9,780)	(6,963)	(6,355)	6,072	1,897	10,732
35690	General industrial machinery, n.e.c.....	664,276	607,935	558,282	554,451	519,904	467,391	429,066	321,709

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>These totals represent the sum of 5-digit product class data obtained from the Current Industrial Reports Series and the census of manufactures or the annual survey of manufactures.

<sup>3</sup>Sources for the data in these product classes are listed below:

Product class	Current Industrial Reports Series
35611, 35612, 35614	M35P Pumps and compressors
35613	M35G Farm pumps
35641	M35H Fan blowers and unit heaters

**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments
<b>INDUSTRIAL PUMPS, EXCEPT HYDRAULIC FLUID POWER (35611)</b>	<b>1963<sup>1</sup></b>	<b>AIR AND GAS COMPRESSORS, EXCEPT REFRIGERATION COMPRESSORS (35614)—Con.</b>	<b>1963<sup>1</sup></b>	<b>BALL BEARINGS, COMPLETE (35621)</b>	<b>1963<sup>1</sup> 1958</b>
United States, total....	321,896	East North Central.....	91,971	United States, total....	388,197 289,073
New England.....	19,680	Ohio.....	36,846	New England.....	189,746 141,336
Massachusetts.....	12,978	Illinois.....	31,490	Middle Atlantic.....	100,622 78,770
Middle Atlantic.....	94,279	Wisconsin.....	6,343	East North Central.....	91,622 (2)
New York.....	16,382	West North Central.....	3,053	Indiana.....	7,026 (2)
New Jersey.....	48,284	South.....	16,411	South and West.....	6,207 3,497
Pennsylvania.....	29,613	West.....	1,377		
East North Central.....	95,897				
Ohio.....	27,242	<b>PUMPS AND COMPRESSORS, N.E.C., EXCEPT REFRIGERATION COMPRESSORS (35615)</b>	<b>1963<sup>1</sup> 1958</b>	<b>ROLLER BEARINGS, COMPLETE (35622)</b>	
Indiana.....	11,231	United States, total....	147,958 125,476	United States, total....	444,829 269,316
Illinois.....	37,271	New England.....	4,666 3,731	Northeast.....	139,903 91,543
Michigan.....	11,148	Middle Atlantic.....	9,983 13,214	Pennsylvania.....	35,401 28,553
Wisconsin.....	9,005	New Jersey.....	3,814 2,684	North Central.....	291,200 177,773
West North Central.....	21,376	Pennsylvania.....	5,252 8,090	Illinois.....	10,604 6,858
Minnesota.....	3,876	East North Central.....	71,297 56,553	South and West.....	13,707 (Z)
Iowa.....	7,847	Ohio.....	21,790 17,935		
Missouri.....	1,457	Indiana.....	1,604 1,512	<b>MOUNTED BEARINGS (35623)</b>	<b>1963<sup>1</sup></b>
South.....	22,986	Illinois.....	37,652 26,338	United States, total....	62,128
Florida.....	1,437	Michigan.....	4,447 4,835	Northeast.....	18,392
Arkansas.....	1,165	Wisconsin.....	5,804 5,933	North Central.....	41,251
Oklahoma.....	4,561	West North Central.....	5,935 2,040	Indiana.....	22,839
Texas.....	6,414	Minnesota.....	4,549 (Z)	South and West.....	2,485
Mountain.....	9,201	Kansas.....	1,066 (2)		
Pacific.....	58,477	South Atlantic.....	2,321 1,758	<b>PARTS AND COMPONENTS FOR BALL AND ROLLER BEARINGS, INCLUDING BALLS AND ROLLERS, SOLD SEPARATELY (35624)</b>	
		Florida.....	1,062 (Z)	United States, total....	62,540
<b>HYDRAULIC FLUID POWER PUMPS AND MOTORS (35612)</b>		East South Central.....	1,084 (Z)	New England.....	20,525
United States, total....	134,885	West South Central.....	33,631 (2)	Middle Atlantic.....	18,956
New England.....	15,328	Texas.....	22,699 15,618	New Jersey.....	4,965
Middle Atlantic.....	7,768	Mountain.....	1,007 (Z)	East North Central.....	16,252
New York.....	4,179	Pacific.....	18,034 25,688	Illinois.....	2,557
New Jersey.....	1,746	California.....	18,034 (2)	Indiana.....	3,633
Pennsylvania.....	1,843			South and West.....	6,807
East North Central.....	56,435	<b>PARTS AND ATTACHMENTS FOR PUMPS, AIR AND GAS COMPRESSORS, AND PUMPING EQUIPMENT (35616)</b>		<b>INDUSTRIAL FANS AND BLOWERS (35641)</b>	<b>1963<sup>1</sup> 1958</b>
Ohio.....	19,780	United States, total....	250,088 180,166	United States, total....	191,235 170,636
Michigan.....	9,704	New England.....	16,810 8,774	New England.....	24,816 21,507
Wisconsin.....	18,738	Massachusetts.....	8,932 4,270	Middle Atlantic.....	43,262 36,299
West North Central.....	27,887	Middle Atlantic.....	78,908 56,000	New York.....	24,160 21,074
South.....	8,785	New York.....	37,071 22,739	New Jersey.....	4,761 4,612
West.....	18,682	New Jersey.....	19,214 18,981	Pennsylvania.....	14,341 10,613
<b>DOMESTIC WATER SYSTEMS AND PUMPS, INCLUDING PUMP JACKS AND CYLINDERS (35613)</b>		Pennsylvania.....	22,623 14,280	East North Central.....	97,360 84,822
United States, total....	83,733	East North Central.....	82,109 68,809	Ohio.....	29,905 28,055
East North Central.....	41,482	Ohio.....	29,991 20,568	Indiana.....	17,845 14,553
Ohio.....	20,022	Indiana.....	11,783 6,706	Illinois.....	21,890 19,217
Indiana.....	5,793	Illinois.....	22,149 17,675	Michigan.....	16,599 15,713
West North Central.....	14,737	Michigan.....	10,703 17,542	Wisconsin.....	11,121 7,284
South Atlantic.....	1,196	Wisconsin.....	7,483 6,318	West North Central.....	2,531 4,333
West South Central.....	10,019	West North Central.....	18,467 15,458	Minnesota.....	1,613 1,375
Arkansas.....	5,966	Missouri.....	3,906 9,031	South Atlantic.....	2,173 3,047
Pacific.....	6,324	South Atlantic.....	1,962 (Z)	East South Central.....	3,273 (2)
All other divisions.....	9,975	East South Central.....	1,966 1,233	West South Central.....	4,513 (2)
<b>AIR AND GAS COMPRESSORS, EXCEPT REFRIGERATION COMPRESSORS (35614)</b>		West South Central.....	18,464 7,495	Texas.....	1,961 1,697
United States, total....	292,301	Arkansas.....	1,173 (2)	West.....	13,307 13,883
New England.....	12,746	Oklahoma.....	6,416 (2)	California.....	12,153 12,849
Middle Atlantic.....	166,743	Texas.....	10,875 4,775		
New York.....	103,639	West.....	31,402 (2)		
New Jersey.....	17,173				
Pennsylvania.....	45,931				

See footnotes at end of table.



TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
DUST COLLECTION, AIR PURIFICATION EQUIPMENT AND AIR WASHERS (35642)			OTHER MECHANICAL POWER TRANSMISSION EQUIPMENT (35663)			HIGH FREQUENCY INDUCTION AND DIELECTRIC HEATING EQUIPMENT AND PARTS, ATTACHMENTS, AND COMPONENTS (35673)		
United States, total....	94,952	70,064	United States, total....	449,460	310,418	United States, total....	109,875	67,652
New England.....	4,616	3,409	New England.....	38,354	30,520	New England.....	13,005	5,641
Middle Atlantic.....	23,112	20,938	Massachusetts.....	26,723	20,671	Massachusetts.....	8,756	3,764
New York.....	4,442	5,216	Middle Atlantic.....	49,695	39,286	Middle Atlantic.....	42,382	21,944
New Jersey.....	14,248	( <sup>2</sup> )	New York.....	17,967	10,474	New York.....	10,393	6,926
Pennsylvania.....	4,422	3,226	New Jersey.....	3,798	2,829	New Jersey.....	15,648	7,551
East North Central.....	20,835	16,796	Pennsylvania.....	27,930	25,983	Pennsylvania.....	16,341	7,467
Ohio.....	7,304	7,694	East North Central.....	291,312	195,939	East North Central.....	39,290	( <sup>2</sup> )
Michigan.....	7,482	3,895	Ohio.....	31,203	15,551	Ohio.....	17,217	7,911
Wisconsin.....	1,749	1,399	Indiana.....	98,593	79,672	Illinois.....	6,584	9,735
West North Central.....	4,478	3,208	Illinois.....	58,219	40,158	Michigan.....	5,252	3,319
South.....	33,549	21,925	Michigan.....	32,202	31,574	West North Central.....	3,237	( <sup>2</sup> )
West.....	8,362	3,788	Wisconsin.....	71,095	28,984	South.....	7,353	3,586
PLAIN BEARINGS (35661)			West North Central.....	19,378	9,481	Alabama.....	2,085	( <sup>2</sup> )
United States, total....	87,949	67,047	Minnesota.....	5,406	4,204	West.....	4,608	3,301
Northeast.....	16,589	6,783	Missouri.....	5,938	4,036	California.....	3,539	2,459
Massachusetts.....	1,134	( <sup>2</sup> )	South.....	40,812	25,273	GENERAL INDUSTRIAL MACHINERY, N.E.C. (35690)		
Pennsylvania.....	9,285	( <sup>2</sup> )	Virginia.....	9,445	( <sup>2</sup> )	United States, total....		664,276
North Central.....	57,215	( <sup>2</sup> )	Texas.....	7,234	4,492	New England.....		96,219
Ohio.....	35,218	26,049	West.....	9,909	9,919	Massachusetts.....		19,206
Indiana.....	10,691	10,310	California.....	6,350	8,047	Connecticut.....		65,811
Illinois.....	3,792	( <sup>2</sup> )	ELECTRIC INDUSTRIAL FURNACES AND OVENS, METAL PROCESSING (35671)			Middle Atlantic.....		185,807
Michigan.....	6,094	4,349	United States, total....		44,697	New York.....		79,260
South.....	1,801	1,574	New England.....		5,859	New Jersey.....		34,821
West.....	12,344	( <sup>2</sup> )	Massachusetts.....		2,628	Pennsylvania.....		71,726
SPEED CHANGERS, INDUSTRIAL HIGH SPEED DRIVES, AND GEARS (35662)			Middle Atlantic.....		9,876	East North Central.....		204,447
United States, total....	333,331	234,151	Pennsylvania.....		8,930	Ohio.....		54,148
New England.....	42,676	23,573	North Central.....		27,629	Indiana.....		14,924
Massachusetts.....	30,081	19,249	Ohio.....		4,095	Illinois.....		60,230
Middle Atlantic.....	72,403	62,503	Illinois.....		11,786	Michigan.....		37,742
New York.....	19,152	14,919	West.....		1,333	Wisconsin.....		37,403
New Jersey.....	20,169	14,929	FUEL-FIRED INDUSTRIAL FURNACES AND OVENS, METAL PROCESSING (35672)			West North Central.....		34,521
Pennsylvania.....	33,082	32,655	United States, total....		76,552	Minnesota.....		15,186
East North Central.....	175,330	119,823	New England.....		1,510	Iowa.....		10,117
Ohio.....	32,038	40,664	Middle Atlantic.....		15,134	Missouri.....		1,860
Indiana.....	46,775	14,057	Pennsylvania.....		10,807	Kansas.....		3,862
Illinois.....	50,219	37,295	East North Central.....		53,123	South Atlantic.....		18,932
West North Central.....	10,057	6,916	Ohio.....		29,947	Maryland.....		5,639
Minnesota.....	5,273	( <sup>2</sup> )	Illinois.....		6,580	North Carolina.....		3,068
South Atlantic.....	2,318	( <sup>2</sup> )	Michigan.....		10,952	Georgia.....		4,835
North Carolina.....	1,845	5,203	West North Central.....		1,477	Florida.....		3,271
West South Central.....	5,920	( <sup>2</sup> )	South.....		1,687	East South Central.....		17,788
West.....	24,627	14,155	West.....		3,621	Alabama.....		2,152
California.....	19,743	10,315				West South Central.....		17,085
						Arkansas.....		484
						Louisiana.....		2,206
						Oklahoma.....		5,850
						Texas.....		8,545
						Mountain.....		12,320
						Pacific.....		77,157
						Washington.....		3,562
						California.....		73,013

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million reported. n.e.c. Not elsewhere classified.

<sup>1</sup>For the specified product classes shipments of \$1 million or more in 1963 were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 35611, Rhode Island, Connecticut, Kansas, South Carolina, Georgia, Tennessee, Colorado, Utah, Oregon, and California; 35612, Massachusetts, Connecticut, Illinois, Minnesota, Missouri, Nebraska, Kansas, Mississippi, Oklahoma, and California; 35613, New York, Pennsylvania, Illinois, Wisconsin, Iowa, Missouri, Nebraska, Kansas, Oklahoma, Texas, and California; 35614, Massachusetts, Connecticut, Indiana, Michigan, Missouri, Louisiana, Oklahoma, Texas, and California; 35615, Rhode Island and Oklahoma; 35616, Rhode Island, Connecticut, Minnesota, Iowa, Nebraska, Kansas, Georgia, Alabama, and California; 35621, New Hampshire, Connecticut, New York, Pennsylvania, Ohio, Illinois, Michigan, South Carolina, Oklahoma, and California; 35622, Connecticut, New York, New Jersey, Ohio, Indiana, Michigan, Virginia, North Carolina, South Carolina, and California; 35623, Connecticut, New York, Illinois, Kentucky, and California; 35624, Connecticut, New York, Pennsylvania, Ohio, Michigan, Virginia, South Carolina, and Tennessee; 35641, Massachusetts, Connecticut, Florida, Tennessee, Alabama, and Oklahoma; 35642, Massachusetts, Connecticut, Indiana, Illinois, Minnesota, Maryland, North Carolina, Kentucky, and California; 35661, Connecticut, New Jersey, Tennessee, and California; 35662, Connecticut, Michigan, Wisconsin, Missouri, Texas, Colorado, and Washington; 35663, Connecticut, Iowa, Kansas, Maryland, South Carolina, Kentucky, Oklahoma, and Colorado; 35671, New Hampshire, Rhode Island, Indiana, Michigan, Wisconsin, Minnesota, and California; 35672, New Jersey, Indiana, Wisconsin, Minnesota, and California; 35673, Connecticut, Indiana, Wisconsin, Missouri, Maryland, and Washington; 35690, New Hampshire, Rhode Island, South Dakota, Nebraska, Kentucky, Tennessee, Colorado, and Utah.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
INDUSTRY 3561.—PUMPS AND COMPRESSORS						
	Materials, parts, containers, and supplies, total.....		(X)	570,414	(X)	467,082
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	38,893	8,716	23,187	5,301
331012	Sheet and strip.....	do.....	33,058	5,651	22,824	4,047
331013	Plates.....	do.....	34,246	5,552	21,115	3,514
331015	Structural shapes.....	do.....	12,095	2,066	10,338	1,905
331019	All other carbon steel mill shapes and forms.....	do.....	26,850	7,420	40,738	9,223
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	do.....	12,854	4,014	6,643	2,424
331029	All other alloy steel.....	do.....	3,372	1,618	7,597	3,566
331031	Stainless steel.....	do.....	5,774	7,306	4,589	5,955
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	655	367	595	582
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	2,233	1,715	1,801	1,044
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	4,355	2,530	8,126	4,881
335123	Plate, sheet, and strip, including military cups and discs.....	do.....	655	362		
335127	Pipe and tube.....	do.....	4,665	3,090		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	do.....	463	332	271	211
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.).	do.....	1,161	606	1,830	1,190
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	do.....	967	708		
	Primary metals:					
331051	Pig iron excluding silvery iron.....	Short tons.....	26,178	1,751	36,645	2,293
333122	Copper and copper-base alloy refinery shapes.....	do.....	5,416	3,134	4,009	2,018
333401	Aluminum and aluminum-base alloy refinery shapes.....	do.....	1,327	589	(NA)	(NA)
999811	Iron and steel scrap (excluding home scrap).....	do.....	33,212	1,309	46,678	1,883
	Castings (rough and semifinished): <sup>1</sup>					
332011	Iron (gray and malleable).....	do.....	115,393	43,125	128,352	46,834
332300	Steel.....	do.....	10,962	14,513	11,605	16,954
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	5,524	4,520	2,646	2,854
336200	Copper and copper-base alloy.....	do.....	17,070	13,371	19,550	13,183
339100	Iron and steel forgings <sup>1</sup> .....	Short tons.....	8,776	8,840	8,044	5,983
	Engines: <sup>1</sup>					
351920	Diesel and semidiesel.....	Number.....	2,047	6,496	1,440	4,663
351901	Gasoline and other carburetor.....	do.....	104,597	7,875	71,565	5,766
	Electric motors and generators: <sup>1</sup>					
362115	Fractional h.p. electric motors (under 1 hp.) (excluding timing motors).....	do.....	1,421,796	24,563	1,446,678	23,521
362120	Integral horsepower motors and generators (1 hp. and over).....	do.....	231,658	26,941	188,420	27,509
	Bearings:					
356218	Ball.....	do.....	(X)	4,218	(X)	5,097
356228	Roller.....	do.....	(X)	11,918	(X)	
970099	All other materials and components, parts, containers, and supplies consumed.....	do.....	(X)	303,902	(X)	245,538
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....	do.....	(X)	41,296	(X)	19,143
INDUSTRY 3562.—BALL AND ROLLER BEARINGS						
	Materials, parts, containers, and supplies, total.....		(X)	343,713	(X)	208,638
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	13,210	4,479	13,678	3,239
331012	Sheet and strip.....	do.....	68,378	13,105	36,307	7,189
331017	Wire and wire products.....	do.....	22,307	8,610	11,028	4,788
331013	Plates.....	do.....	3,837	505	5,702	2,110
331015	Structural shapes.....	do.....	4,742	1,699		
331019	All other carbon steel mill shapes and forms.....	do.....				
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	do.....	138,307	52,274	93,478	36,884
331029	All other alloy mill shapes and forms.....	do.....	180,190	83,958	98,138	45,498
331031	Stainless steel.....	do.....	1,207	1,769	496	694

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3562.—BALL AND ROLLER BEARINGS—Continued			
	Mill shapes and forms (except castings)—Continued					
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	-	-	(D)	(D)
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	(D)	(D)	(D)	(D)
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	2,221	1,198	3,075	1,685
335123	Plate, sheet, and strip, including military cups and discs....	..do.....				
335127	Pipe and tube.....	..do.....				
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	..do.....	-	-	(NA)	(NA)
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	..do.....	501	402	(NA)	(NA)
335209	All other aluminum mill shapes and forms.....	..do.....	20	16	(NA)	(NA)
333122	Copper and copper-base alloy refinery shapes.....	Short tons.....	(D)	(D)	(NA)	(NA)
999811	Iron and steel scrap (excluding home scrap).....	..do.....	(D)	(D)	(NA)	(NA)
	Castings (rough and semifinished): <sup>1</sup>					
332011	Iron (gray and malleable).....	..do.....	21,687	8,346	6,863	2,315
332300	Steel.....	..do.....	2,362	1,634	4,022	2,666
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	(D)	(D)	-	-
336200	Copper and copper-base alloy.....	..do.....	2,855	3,074	1,475	1,267
339100	Iron and steel forgings <sup>1</sup> .....	Short tons.....	16,620	11,490	14,908	9,814
	Bearings:					
356218	Ball.....	.....	(X)	10,780	(X)	3,297
356228	Roller.....	.....	(X)	3,687	(X)	
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	119,833	(X)	85,109
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....	.....	(X)	16,719	(X)	2,083
			INDUSTRY 3564.—BLOWERS AND FANS			
	Materials, parts, containers, and supplies, total.....	.....	(X)	114,795	(X)	99,467
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	10,114	1,925	10,902	1,709
331012	Sheet and strip.....	..do.....	72,286	11,437	59,167	9,249
331013	Plates.....	..do.....	19,479	2,853	17,352	2,303
331015	Structural shapes.....	..do.....	4,530	728	8,776	1,269
331017	Wire and wire products.....	..do.....	794	359	1,082	609
331019	All other carbon steel mill shapes and forms.....	..do.....	6,541	1,813	4,204	777
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	297	174	1,240	752
331029	All other alloy steel mill shapes and forms.....	..do.....	3,251	894		
331031	Stainless steel.....	..do.....	923	1,344	971	1,460
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	(D)	(D)	(D)	(D)
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	(D)	(D)	206	163
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	84	49	1,899	1,338
335123	Plate, sheet, and strip.....	..do.....	585	355		
335127	Pipe and tube.....	..do.....	1,088	666		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	..do.....	10,713	4,326	5,670	2,906
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	..do.....	320	164	666	445
335209	All other aluminum mill shapes and forms.....	..do.....	312	156		
331051	Pig iron.....	Short tons.....	1,369	78	1,285	82
999811	Iron and steel scrap (excluding home scrap).....	..do.....	(D)	(D)	3,158	111
	Castings (rough and semifinished): <sup>1</sup>					
332011	Iron (gray and malleable).....	..do.....	9,637	3,971	5,978	2,247
332300	Steel.....	..do.....	549	447	1,389	1,205
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	1,518	1,144	2,297	1,902
336200	Copper and copper-base alloy.....	..do.....	228	192	319	241
	Electric motors and generators: <sup>1</sup>					
362110	Timing motors, synchronous and subsynchronous.....	Number.....	85,262	1,132	467,790	4,272
362115	Other fractional horsepower electric motors.....	..do.....	218,106	4,759	235,522	2,841
362120	Integral horsepower motors and generators.....	..do.....	89,564	7,298	43,278	4,734

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3564.—BLOWERS AND FANS—Continued			
356218	Bearings:		(X)		(X)	
356228	Ball.....		(X)	3,162	(X)	2,223
	Roller.....			622		
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	50,301	(X)	40,490
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....		(X)	14,446	(X)	16,139
	Material	Unit of measure	1963			
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3565.—INDUSTRIAL PATTERNS			
	Materials, components, parts, containers, and supplies, total.....				(X)	23,512
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....		579		155
331012	Sheet and strip.....	..do.....		116		36
331013	Plates.....	..do.....				
331015	Structural shapes.....	..do.....				
331019	All other carbon mill shapes and forms.....	..do.....			1,384	294
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....				
331029	All other alloy steel mill shapes and forms.....	..do.....			377	247
331031	Stainless steel.....	..do.....				
	Copper and copper-base alloy:					
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....				
335123	Plate, sheet, and strip, including military cups and discs.....	..do.....			(NA)	18
335127	Pipe and tube.....	..do.....				
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	..do.....				
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc.....	..do.....				
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	..do.....			324	161
	Castings (rough and semifinished): <sup>1</sup>					
332011	Iron (gray and malleable).....	Short tons.....		1,892		707
332300	Steel.....	..do.....		186		135
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....		1,850		1,539
336200	Copper and copper-base alloy.....	..do.....		122		69
970099	All other materials and components, parts, containers, and supplies consumed.....				(X)	7,731
960000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....				(X)	<sup>2</sup> 12,420
	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3566.—POWER TRANSMISSION EQUIPMENT			
	Materials, components, parts, containers, and supplies, total..		(X)	290,185	(X)	193,457
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	78,833	16,472	53,710	12,820
331012	Sheet and strip.....	..do.....	85,047	18,067	47,961	9,799
331013	Plates.....	..do.....	29,926	4,682	23,487	3,517
331015	Structural shapes.....	..do.....	3,694	818	2,191	443
331017	Wire and wire products.....	..do.....	3,319	1,593	2,729	1,164
331019	All other carbon steel mill shapes and forms.....	..do.....	7,782	2,295	5,676	1,785
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	35,615	9,906	22,173	6,367
331029	All other alloy steel mill shapes and forms.....	..do.....	16,938	8,193	11,412	4,364
331031	Stainless steel.....	..do.....	1,584	1,970	1,099	1,515
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	131	104	161	112
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	305	230	101	68
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....				
335127	Pipe and tube.....	..do.....				
335123	Plate, sheet, and strip, including military cups and discs.....	..do.....				

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3566.—POWER TRANSMISSION EQUIPMENT—Continued			
	Mill shapes and forms (except castings)—Continued					
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	1,000 lbs.....	300	277	} 296	114
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.).....	do.....	213	212		
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	do.....	175	203		229
	Primary metals:					
331051	Pig iron excluding silvery iron.....	Short tons.....	15,282	963	13,544	972
333122	Copper and copper-base alloy refinery shapes.....	do.....	9,183	6,142	9,795	5,806
	Scrap (excluding home scrap):					
999811	Iron and steel.....	do.....	39,673	1,581	31,259	1,395
999812	Copper and copper-base alloy.....	do.....	12,989	6,109	11,784	4,895
	Castings (rough and semifinished): <sup>1</sup>					
332011	Iron (gray and malleable).....	do.....	84,495	25,556	63,089	17,936
332300	Steel.....	do.....	18,019	8,403	11,439	6,865
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	2,546	2,287	1,544	1,223
336200	Copper and copper-base alloy.....	do.....	9,234	5,812	5,538	3,693
339100	Iron and steel forgings <sup>1</sup> .....	Short tons.....	36,164	15,848	34,620	14,871
	Bearings:					
356218	Ball.....	do.....	(X)	9,623	(X)	} 8,559
356228	Roller.....	do.....	(X)	6,561	(X)	
970099	All other materials and components, parts, containers, and supplies consumed.....	do.....	(X)	100,305	(X)	69,102
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....	do.....	(X)	33,604	(X)	15,062
			INDUSTRY 3567.—INDUSTRIAL FURNACES AND OVENS			
	Materials, components, parts, containers, and supplies, total.....		(X)	112,956	(X)	87,072
	Mill shapes and forms (except castings):					
	Carbon steel:					
331012	Sheet and strip.....	Short tons.....	38,541	5,945	8,794	1,475
331013	Plates.....	do.....	18,085	3,010	19,968	2,627
331015	Structural shapes.....	do.....	8,801	1,470	15,854	2,786
331019	All other carbon steel mill shapes and forms.....	do.....	6,203	1,570	8,672	1,513
331020	Alloy steel (except stainless).....	do.....	1,094	929	1,076	648
331031	Stainless steel.....	do.....	3,702	7,196	3,200	5,553
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	72	105	(NA)	(NA)
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	262	232	(NA)	(NA)
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	392	261	(NA)	(NA)
335123	Plate, sheet, and strip, including military cups and discs.....	do.....	405	261	(NA)	(NA)
335127	Pipe and tube.....	do.....	3,878	3,112	(NA)	(NA)
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	do.....	3,723	1,946	(NA)	(NA)
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.).....	do.....	412	445	(NA)	(NA)
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	do.....	56	33	(NA)	(NA)
332300	Steel castings (rough and semifinished) <sup>1</sup> .....	Short tons.....	5,760	3,253	2,042	2,345
970099	All other materials and components, parts, containers, and supplies consumed.....	do.....	(X)	63,138	(X)	59,510
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....	do.....	(X)	20,050	(X)	10,615
			INDUSTRY 3569.—GENERAL INDUSTRY MACHINES, N.E.C.			
	Materials, components, parts, containers, and supplies, total.....		(X)	222,504	(X)	152,021
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	40,592	7,445	14,833	3,776
331012	Sheet and strip.....	do.....	30,942	5,261	21,400	3,816
331013	Plates.....	do.....	21,982	3,708	9,649	1,787
331015	Structural shapes.....	do.....	13,285	2,504	6,730	1,259
331017	Wire and wire products.....	do.....	1,541	770	3,071	1,612
331019	All other carbon steel mill shapes and forms.....	do.....	14,167	3,296	11,898	2,620
	Alloy steel (except stainless):					
331021	Bar and bar shapes.....	do.....	3,376	1,405	1,303	617
331029	All other alloy steel mill shapes and forms.....	do.....	3,313	1,605	1,238	650

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3569.—GENERAL INDUSTRY MACHINES, N.E.C.—Con.			
	Mill shapes and forms (except castings)—Continued					
331031	Stainless steel.....	Short tons.....	4,527	7,026	1,206	2,036
335728	Copper and copper-base alloy:					
335790	Bare wire (for electrical conduction).....	1,000 lbs.....	(NA)	244	373	146
	Insulated wire and cable.....	1,000 lbs. (copper content)			72	36
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	1,028	674	5,098	3,145
335123	Plate, sheet, and strip, including military cups and discs.....	..do.....	865	895		
335127	Pipe and tube.....	..do.....	1,263	701		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	..do.....	4,676	2,644	2,054	1,172
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	..do.....	1,572	1,863	1,711	1,105
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	..do.....	1,507	1,296		
331051	Pig iron excluding silvery iron.....	Short tons.....	469	29	812	55
999811	Iron and steel scrap (excluding home scrap).....	..do.....	2,414	121	1,201	48
	Castings (rough and semifinished): <sup>1</sup>					
332011	Iron (gray and malleable).....	..do.....	13,722	6,340	9,525	3,721
332300	Steel.....	..do.....	2,543	2,224	1,818	1,274
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	1,425	1,006	678	620
336200	Copper and copper-base alloy.....	..do.....	2,414	1,999	1,554	1,067
	Electric motors and generators: <sup>1</sup>					
362115	Fractional horsepower electric motors (under 1 hp.) (excluding timing motors).....	Number.....	51,208	1,887	27,115	877
362120	Integral horsepower motors and generators (1 hp. and over).....	..do.....	18,566	2,070	6,514	7,110
	Bearings:					
356218	Ball.....		(X)	928	(X)	377
356228	Roller.....		(X)	312	(X)	
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	115,220	(X)	76,417
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....		(X)	49,031	(X)	36,678

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>In addition the following quantities were produced and consumed in the same establishment:

Code	Item	Unit of measure	INDUSTRY									
			3561		3562	3564	3565	3566		3567	3569	
			1963	1958	1963	1963	1963	1963	1958	1963	1963	1958
	Castings (rough and semifinished):											
332011	Iron (gray and malleable).....	Short tons	54,933	56,020	(NA)	1,712	(NA)	34,724	23,575	(NA)	1,802	1,703
332300	Steel.....	...do....	(D)	761	(NA)	-	(NA)	88	184	(D)	(D)	(NA)
336100	Aluminum and aluminum-base alloy.	1,000 lbs.	(D)	7,968	-	490	(D)	(D)	(NA)	(NA)	(D)	(NA)
336200	Copper and copper-base alloy.....	...do.....	(NA)	1,991	(D)	(D)	(D)	(D)	(D)	(NA)	(D)	(NA)
339100	Iron and steel forgings.....	Short tons	(D)	-	(D)	(NA)	(NA)	(D)	2,444	(NA)	(NA)	(NA)
	Engines:											
351920	Diesel and semidiesel.....	Number....	(D)	(D)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
351901	Gasoline and other carburetor....	...do.....	(D)	(D)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	-
	Electric motors and generators:											
362115	Fractional horsepower electric motors (under 1 hp.) (excluding timing motors).....	...do.....	420,357	465,812	(NA)	(D)	(NA)	(NA)	(NA)	(NA)	(D)	144
362120	Integral horsepower motors and generators (1 hp. and over).....	...do.....	13,415	4,271	(NA)	(D)	(NA)	(NA)	(NA)	(NA)	334	131

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>2</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."



TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

Item	Pumps and compressors (SIC 3561)	Ball and roller bearings (SIC 3562)	Blowers and fans (SIC 3564)	Industrial patterns (SIC 3565)	Power transmission equipment (SIC 3566)	Industrial furnaces and ovens (SIC 3567)	General industry machines, n.e.c. (SIC 3569)
Total cost of purchased fuels and electric energy.....\$1,000..	10,612	12,100	2,226	1,240	9,144	1,751	5,321
Total cost of purchased fuels.....do....	4,961	4,720	946	486	3,859	713	1,976
Bituminous coal, lignite, and anthracite:							
Quantity.....1,000 short tons..	109	89	(S)	(S)	53	(S)	(S)
Cost.....\$1,000..	818	491	(S)	(S)	426	(S)	(S)
Coke and breeze:							
Quantity.....1,000 short tons..	18	-	(S)	-	9	-	(S)
Cost.....\$1,000..	626	-	(S)	-	255	-	(S)
Fuel oil (distillate and residual):							
Quantity.....1,000 barrels of 42 gallons..	299	408	74	(S)	227	(S)	154
Cost.....\$1,000..	1,082	1,168	260	(S)	845	(S)	619
Gas (natural, manufactured, still, blast furnace, and coke oven):							
Quantity.....million cu.ft..	3,544	4,850	646	214	3,219	437	1,230
Cost.....\$1,000..	2,182	3,021	456	156	2,150	335	810
Other fuels.....do....	253	40	172	258	183	226	352
Electric energy:							
Purchased:							
Quantity.....million kw.-hrs..	410	673	76	34	377	58	229
Cost.....\$1,000..	5,651	7,380	1,280	754	5,285	1,038	3,345
Generated less sold.....million kw.-hrs..	22	-	(S)	-	(S)	-	(S)
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	442	407	84	32	304	40	130
Prime movers, total.....do....	85	5	17	(Z)	9	2	9
Driving generators.....do....	18	(Z)	1	(Z)	2	1	5
Not driving generators.....do....	67	5	16	-	7	1	4
Electric motors, total.....do....	367	401	68	31	296	38	123
Driven by purchased energy.....do....	357	401	68	31	296	38	120
Driven by energy generated at establishment.....do....	10	-	(Z)	-	(Z)	-	2
Aggregate horsepower per 100 production workers.....	1,158	959	854	373	968	648	678

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower. n.e.c Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3561-	PUMPS AND COMPRESSORS										
	Entire industry.....	642	61,322	395,769	38,934	80,825	224,721	768,787	660,549	1,419,081	28,417
	Establishments with—										
	90% or more specialization..	520	32,083	205,324	20,418	42,240	115,089	399,195	391,230	785,422	16,478
	75-89% specialization.....	40	10,520	65,690	6,320	12,965	35,804	137,109	88,149	220,998	4,205
35611	Industrial pumps, except hydraulic fluid power (primary product class of estab.).....	159	18,318	121,723	11,627	24,579	70,422	228,568	187,268	413,059	8,415
	Establishments with—										
	90% or more specialization....	76	2,412	15,516	1,453	3,022	8,183	35,426	32,006	66,308	1,379
	75-89% specialization.....	19	2,088	12,692	1,262	2,642	6,784	26,027	22,948	49,518	892
35612	Hydraulic fluid power pumps and motors (primary product class of estab.).....	38	8,208	54,378	5,169	10,844	30,745	114,656	71,694	185,263	3,742
	Establishments with—										
	90% or more specialization....	13	1,177	7,495	878	1,837	5,229	15,019	7,930	22,293	908
	75-89% specialization.....	7	874	5,218	611	1,342	3,265	7,753	5,434	12,459	388
35613	Domestic water systems and pumps, including pump jacks and cylinders (primary product class of estab.).....	35	3,955	23,117	2,782	5,553	14,442	56,519	58,539	114,006	1,958
	Establishments with—										
	90% or more specialization....	13	158	730	103	227	482	1,426	1,552	2,962	38
35614	Air and gas compressors, except refrigeration compressors (primary product class of estab.)....	55	16,305	103,039	10,210	21,380	58,326	193,146	187,095	377,021	7,351
	Establishments with—										
	90% or more specialization....	27	742	4,609	479	1,055	2,475	8,350	17,174	25,031	172
	75-89% specialization.....	9	2,922	19,333	1,873	4,042	10,725	32,627	26,244	57,019	2,618
35615	Pumps and compressors, n.e.c., except refrigeration compressors (primary product class of estab.)	124	6,993	44,218	4,539	9,263	24,550	93,036	71,403	162,889	4,267
	Establishments with—										
	90% or more specialization....	85	2,119	13,663	1,387	2,884	7,664	33,422	23,769	57,022	871
	75-89% specialization.....	12	966	6,141	687	1,442	3,596	13,204	5,374	18,345	173
35616	Parts and attachments for pumps, air and gas compressors, and pumping equipment (primary product class of estab.).....	56	6,437	43,645	3,794	7,567	22,518	71,946	76,315	147,954	2,310
	Establishments with—										
	90% or more specialization....	22	681	4,857	451	903	2,767	8,759	5,105	14,037	294
	75-89% specialization.....	7	252	1,721	126	264	769	2,338	6,999	9,233	43
3562-	BALL AND ROLLER BEARINGS										
	Entire industry.....	125	52,316	348,700	42,003	85,970	263,022	627,694	372,267	998,784	39,243
	Establishments with—										
	90% or more specialization..	111	46,102	305,878	37,394	76,107	233,039	562,091	339,516	899,599	33,265
	75-89% specialization.....	7	4,592	31,514	3,454	7,232	21,608	50,711	19,765	71,384	5,331
35621	Ball bearings, complete (primary product class of estab.).....	46	25,327	161,118	20,444	41,441	120,901	281,032	129,813	416,036	16,833
	Establishments with—										
	90% or more specialization....	32	13,874	87,151	11,276	23,211	65,563	161,020	72,864	233,533	9,030
	75-89% specialization.....	8	6,830	40,097	5,671	10,962	31,260	65,790	28,433	99,692	2,999
35622	Roller bearings, complete (primary product class of estab.).....	29	22,132	156,392	17,799	36,393	118,773	288,850	198,561	481,542	18,184
	Establishments with—										
	90% or more specialization....	19	15,677	107,844	13,073	26,827	85,134	200,599	154,996	353,024	11,439
35623	Mounted bearings (primary product class of estab.).....	8	2,618	18,149	1,925	4,309	12,629	34,914	25,323	60,138	1,807
	Establishments with—										
	90% or more specialization....	3	160	904	126	272	604	1,331	1,930	3,267	153

See footnotes at end of table.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued**

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3562-	BALL AND ROLLER BEARINGS—Con.										
35624	Parts and components for ball and roller bearings, including balls and rollers, sold separately (primary product class of estab.)	26	1,906	11,004	1,577	3,243	8,329	22,684	16,307	38,683	2,180
	Establishments with—										
	90% or more specialization....	18	1,381	7,742	1,153	2,352	5,948	15,752	12,690	28,174	1,926
	75-89% specialization.....	3	188	1,273	134	276	779	1,916	1,041	2,874	16
3564-	BLOWERS AND FANS										
	Entire industry.....	237	15,244	94,090	10,733	21,616	57,776	180,801	135,733	315,285	6,979
	Establishments with—										
	90% or more specialization..	180	7,103	43,649	4,943	9,971	25,301	89,185	66,640	153,861	3,334
	75-89% specialization.....	23	4,039	25,203	3,053	6,054	17,115	43,744	31,534	75,180	1,628
35641	Industrial fans and blowers (primary product class of estab.)....	92	10,790	65,692	7,667	15,592	41,178	124,156	93,191	217,132	5,380
	Establishments with—										
	90% or more specialization....	59	4,290	25,229	3,009	6,114	14,875	48,872	34,807	83,143	2,209
	75-89% specialization.....	12	878	5,367	604	1,268	3,248	12,389	8,422	20,915	285
35642	Dust collection, air purification equipment, and air washers (primary product class of estab.)....	55	3,546	23,451	2,376	4,653	13,260	48,414	36,370	83,673	1,231
	Establishments with—										
	90% or more specialization....	36	2,042	14,148	1,391	2,771	7,769	32,170	25,415	56,120	875
	75-89% specialization.....	9	932	5,770	681	1,244	3,694	10,529	6,590	16,856	336
3566-	POWER TRANSMISSION EQUIPMENT										
	Entire industry.....	532	46,670	303,314	34,400	71,101	203,941	555,710	345,058	888,641	26,444
	Establishments with—										
	90% or more specialization..	453	29,403	189,181	21,756	45,025	126,157	349,671	219,068	561,457	16,184
	75-89% specialization.....	23	5,241	34,695	3,607	7,468	22,096	57,534	33,464	90,651	4,319
35661	Plain bearings (primary product class of estab.).....	49	4,436	26,824	3,448	6,887	18,901	44,491	30,404	73,183	2,998
	Establishments with—										
	90% or more specialization....	36	1,841	11,298	1,387	2,856	7,376	18,889	14,184	32,135	1,807
	75-89% specialization.....	4	590	3,726	487	1,002	2,777	5,711	4,417	11,047	637
35662	Speed changers, industrial high speed drives and gears (primary product class of estab.).....	181	18,546	123,226	13,297	27,620	79,681	210,670	122,899	330,289	10,362
	Establishments with—										
	90% or more specialization....	134	9,503	63,662	7,068	14,654	41,927	110,466	60,746	169,874	5,215
	75-89% specialization.....	19	3,994	25,865	2,817	5,781	16,733	44,626	33,143	76,069	1,959
35633	Other mechanical power transmission equipment (primary product class of estab.).....	133	22,274	145,584	16,519	34,233	99,289	284,354	183,442	460,355	12,389
	Establishments with—										
	90% or more specialization....	91	11,130	70,959	8,345	17,165	48,389	143,056	91,143	230,655	6,298
	75-89% specialization.....	12	585	3,515	388	800	2,156	5,806	4,177	10,103	470
3567-	INDUSTRIAL FURNACES AND OVENS										
	Entire industry.....	238	12,118	83,738	6,782	13,963	38,731	143,009	137,732	279,058	4,561
	Establishments with—										
	90% or more specialization..	191	6,136	42,444	3,521	7,286	20,357	72,680	76,122	146,760	2,241
	75-89% specialization.....	15	2,305	15,274	1,101	2,243	5,616	25,969	21,864	47,794	570
35671	Electric industrial furnaces and ovens, metal processing (primary product class of estab.).....	34	2,585	17,131	1,431	2,972	7,879	28,672	28,558	57,909	829
	Establishments with—										
	90% or more specialization....	11	257	1,934	166	355	959	4,279	2,630	6,755	350
35672	Fuel-fired industrial furnaces and ovens, metal processing (primary product class of estab.).....	44	3,321	25,255	1,496	3,073	8,770	44,609	49,817	94,224	726
	Establishments with—										
	90% or more specialization....	20	816	5,807	436	885	2,327	9,260	12,443	21,653	96

See footnotes at end of table.

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3567-	INDUSTRIAL FURNACES AND OVENS—Con.										
35673	High frequency induction and dielectric heating equipment and parts, attachments and components (primary product class of estab.).....	73	5,699	38,274	3,476	7,140	19,879	64,629	53,658	115,809	2,865
	Establishments with—										
	90% or more specialization....	52	2,790	18,992	1,791	3,666	10,249	32,551	28,853	59,135	1,133
	75-89% specialization.....	11	597	3,709	312	646	1,615	6,615	4,420	10,868	225
3569-	GENERAL INDUSTRY MACHINES, N.E.C.										
	Entire industry.....	777	35,559	240,816	20,332	40,869	109,354	424,084	272,709	691,280	15,102
	Establishments with—										
	90% or more specialization..	629	21,818	151,048	11,829	24,214	62,724	252,364	176,671	427,639	10,621
	75-89% specialization.....	40	2,846	18,043	1,751	3,573	10,089	48,121	27,648	76,846	688

n.e.c. Not elsewhere classified.



TABLE 9. Establishments, Production Workers, and Man-Hours for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation				
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>			
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more	
	INDUSTRY 3561.—PUMPS AND COMPRESSORS								
Ferrous foundry.....	30	1	6*	23	1,877	(D)	(D)	1,801	
Nonferrous foundry (except die casting).....	23	5	13	5	298	9	130	159	
Galvanizing and other hot dip coating.....	12	9	3	—	59	20	39	—	
Heat treating of metals.....	56	42	13	1	210	72	(D)	(D)	
Automatic screw machine department.....	51	32	14	5	482	61	135	286	
Machine shop.....	294	74	86	134	11,913	154	862	10,897	
Tool and die shop.....	99	48	41	10	758	94	382	282	
Foundry pattern shop.....	54	35	16	3	374	64	166	144	
Plate or structural fabrication.....	84	37	29	18	1,327	67	277	983	
Stamping, blanking and forming of metals.....	67	45	17	5	394	74	164	156	
Painting, lacquering and enameling on metals.....	188	166	17	5	542	253	121	168	
Assembly of product.....	269	97	106	66	4,843	183	952	3,708	
	INDUSTRY 3562.—BALL AND ROLLER BEARINGS								
Nonferrous foundry.....	2	—	1	1	(D)	—	(D)	(D)	
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	13	4	7	2	183	8	(D)	(D)	
Electroplating and other plating.....	13	8	5	—	51	15	36	—	
Heat treating of metals.....	68	26	22	20	1,722	42	234	1,446	
Automatic screw machine department.....	65	16	15	34	2,530	34	124	2,372	
Machine shop.....	75	18	18	39	3,453	29	164	3,260	
Tool and die shop.....	48	12	15	21	1,893	15	179	1,699	
Foundry pattern shop.....	3	1	2	—	17	(D)	(D)	—	
Plate or structural fabrication.....	3	2	—	1	(D)	(D)	—	(D)	
Stamping, blanking and forming of metals.....	51	14	20	17	1,278	32	220	1,026	
Painting, lacquering and enameling on metals.....	11	9	2	—	25	(D)	(D)	—	
Assembly of product.....	70	15	17	38	3,745	34	202	3,509	
	Number of establishments				Employment in the specified operation				Man-hours worked by production workers in the specified operation (1,000)
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>			
		1-4	5-19	20 or more		1-4	5-19	20 or more	
	INDUSTRY 3564.—BLOWERS AND FANS								
All operations, total.....	106	(X)	(X)	(X)	8,940	(X)	(X)	(X)	17,765
Ferrous foundry.....	2	—	1	1	(D)	—	(D)	(D)	(D)
Nonferrous foundry (except die casting).....	4	1	2	1	47	(D)	(D)	(D)	90
Electroplating and other plating.....	2	2	—	—	(D)	(D)	—	—	(D)
Galvanizing and other hot dip coating.....	2	1	1	—	(D)	(D)	(D)	—	(D)
Heat treating of metals.....	4	2	2	—	(D)	(D)	(D)	—	(D)
Automatic screw machine department.....	5	3	2	—	23	(D)	(D)	—	45
Machine shop.....	50	21	16	13	1,214	47	146	1,021	2,534
Tool and die shop.....	23	11	8	4	185	24	64	97	382
Foundry pattern shop.....	9	7	2	—	38	(D)	(D)	—	65
Plate or structural fabrication.....	44	11	19	14	917	26	198	693	1,806
Stamping, blanking and forming of metals.....	68	24	25	19	1,097	48	239	810	2,303
Painting, lacquering and enameling on metals.....	76	60	14	2	265	108	(D)	(D)	530
Assembly of product.....	97	32	33	32	2,594	82	322	2,190	5,144
Shipping department, including packing and crating..	87	59	24	4	444	108	203	133	903
All other operations such as maintenance, warehousing, etc.....	60	25	18	7	1,799	51	195	1,553	3,685
	Number of establishments				Employment in the specified operation				
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>			
		1-4	5-19	20 or more		1-4	5-19	20 or more	
	INDUSTRY 3565.—INDUSTRIAL PATTERNS								
Ferrous foundry.....	5	5	—	—	8	8	—	—	—
Nonferrous foundry (except die casting).....	37	24	12	1	175	45	(D)	(D)	(D)
Nonferrous die casting.....	7	4	2	1	78	(D)	(D)	(D)	(D)
Electroplating and other plating.....	2	2	—	—	(D)	(D)	—	—	—
Heat treating of metals.....	2	2	—	—	(D)	(D)	—	—	—
Machine shop.....	53	30	21	2	306	50	(D)	(D)	(D)
Tool and die shop.....	22	12	7	3	149	18	50	81	81
Foundry pattern shop.....	377	141	196	40	3,715	246	1,838	1,631	1,631

See footnotes at end of table.

TABLE 9. Establishments, and Production Workers for Selected Metalworking Operations: 1963—Continued

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3565.—INDUSTRIAL PATTERNS—Continued							
Plate or structural fabrication.....	2	-	2	-	(D)	-	(D)	-
Stamping, blanking and forming of metals.....	3	1	2	-	17	(D)	(D)	-
Painting, lacquering and enameling on metals.....	9	9	-	-	19	19	-	-
	INDUSTRY 3566.—POWER TRANSMISSION EQUIPMENT							
Ferrous foundry.....	10	-	2	8	1,330	-	(D)	(D)
Nonferrous foundry (except die casting).....	14	1	4	9	467	(D)	(D)	408
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	5	2	2	1	50	(D)	(D)	(D)
Electroplating and other plating.....	19	16	1	2	93	26	(D)	(D)
Heat treating of metals.....	68	37	24	7	668	73	269	326
Automatic screw machine department.....	80	36	36	8	757	68	324	365
Machine shop.....	284	53	99	132	13,018	73	1,062	11,883
Tool and die shop.....	86	39	31	16	931	75	295	561
Foundry pattern shop.....	32	23	7	2	143	41	(D)	(D)
Plate or structural fabrication.....	21	12	4	5	365	14	58	293
Stamping, blanking and forming of metals.....	60	30	11	19	1,195	54	108	1,033
Painting, lacquering and enameling on metals.....	71	63	8	-	150	91	59	-
Assembly of product.....	150	71	38	41	3,545	139	351	3,055
	INDUSTRY 3567.—INDUSTRIAL FURNACES AND OVENS							
Machine shop.....	85	50	20	15	1,598	103	198	1,297
Plate or structural fabrication.....	73	30	29	14	1,028	77	283	668
Stamping, blanking and forming of metals.....	58	29	21	8	495	62	191	242
Painting, lacquering and enameling on metals.....	66	55	9	2	207	95	(D)	(D)
	INDUSTRY 3569.—GENERAL INDUSTRY MACHINES, N.E.C.							
Ferrous foundry.....	5	2	1	2	80	(D)	(D)	(D)
Nonferrous foundry (except die casting).....	4	1	2	1	41	(D)	(D)	(D)
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	4	3	-	1	37	(D)	-	(D)
Electroplating and other plating.....	9	8	1	-	33	(D)	(D)	-
Galvanizing and other hot dip coating.....	5	3	2	-	15	(D)	(D)	-
Heat treating of metals.....	29	27	2	-	62	(D)	(D)	-
Automatic screw machine department.....	26	21	4	1	93	34	(D)	(D)
Machine shop.....	249	87	94	68	4,258	172	974	3,112
Tool and die shop.....	63	45	17	1	280	82	(D)	(D)
Foundry pattern shop.....	22	19	3	-	58	33	25	-
Plate or structural fabrication.....	116	61	36	19	1,475	107	331	1,037
Stamping, blanking and forming of metals.....	88	54	25	9	697	75	242	380
Painting, lacquering and enameling on metals.....	157	144	13	-	296	172	124	-

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below:

Item	Industry						
	3561	3562	3564	3565	3566	3567	3569
Total number of establishments in the industry.....	642	125	237	1,209	532	239	778
Number of establishments which reported one or more of the specified operations.....	334	99	106	449	316	121	348
Percent of industry production workers in these establishments...	80-85	95-100	80-85	60-65	85-90	80-85	65-70
Number of establishments which reported "none" of the operations apply.....	56	6	(X)	100	56	17	68
Percent of industry production workers in these establishments...	0-5	0-5	(X)	10-15	0-5	5-10	0-5
Percent of industry production workers in establishments which completed metalworking operations inquiry.....	80-85	95-100	80-85	75-80	85-90	90-95	70-75

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>These size groups are based on the number of employees in each specific operation. They are not based on total employment in the establishment.





## OFFICE, COMPUTING, AND ACCOUNTING MACHINES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3571—Computing and Accounting Machines, Including Cash Registers
- 3572—Typewriters
- 3576—Scales and Balances, Except Laboratory
- 3579—Office Machines, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3571—COMPUTING AND ACCOUNTING MACHINES, INCLUDING CASH REGISTERS

This industry comprises establishments primarily engaged in manufacturing computing machines including electronic, accounting machines, and cash register. Establishments primarily engaged in manufacturing typewriters are classified in industry 3572, and office duplicating machines and devices and autographic registers in industry 3579. For a detailed list of products of industry 3571, refer to table 6A, product codes 3571101 to 3571297.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Computing and Related Machines Industry totaled \$2,020 million. This amount included shipments of computing and related machines (primary products) valued at \$1,752 million, shipments of other products (secondary products) valued at \$122 million, and miscellaneous receipts (largely sales of products bought and resold) at \$145 million.

This industry's shipments of computing and related machines represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 94 percent.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each



of the different product classes. The extent of this specialization is indicated in table 8. Approximately 54 percent of the total industry shipments are represented by plants specializing in computing and accounting machines, including cash registers; and 45 percent in electronic data processing machines and associated equipment, except typewriters.

Shipments of computing and related machines by this industry represented 94 percent of all shipments of these products (\$1,859 million) by all industries. In 1958 the coverage ratio was 91 percent. Other industries shipping computing and related machines include industry 3662, Radio, TV Communications Equipment, \$44 million; and industry 3572, Typewriters, over \$22 million.

#### 3572—TYPEWRITERS

This industry comprises establishments primarily engaged in manufacturing typewriters and parts. For a detailed list of products of industry 3572, refer to table 6A, product codes 3572001 to 3572098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Typewriters Industry totaled \$315 million. This amount included shipments of typewriters (primary products) valued at \$262 million, shipments of other products (secondary products) valued at \$45 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$8 million.

This industry's shipments of typewriters represented 85 percent of its total product shipments. The industry specialization ratio in 1958 was 82 percent. Secondary products shipped by this industry in 1963 include computing and related machines of over \$22 million.

Shipments of typewriters by this industry represented 99 percent of all shipments of these products (\$265 million) by all industries. In 1958 the coverage ratio was also 99 percent.

The production index for the primary products of the industry increased to 158 in 1963 from the 1958 level of 116. The unit value index for 1963 was 119 compared to 115 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3576—SCALES AND BALANCES, EXCEPT LABORATORY

This industry comprises establishments primarily engaged in manufacturing weighing and force measuring machines and devices of all types, except those regarded as scientific apparatus for laboratory and experimental work which are classified in industry 3811. For a detailed list of products of industry 3576, refer to table 6A, product codes 3576011 to 3576084.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Scales and Balances Industry totaled \$98 million. This amount included shipments of scales and balances (primary products) valued at \$87 million, shipments of other products (secondary products) valued at \$7 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$4 million.

This industry's shipments of scales and balances represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent.

Shipments of scales and balances by this industry represented 97 percent of all shipments of these products (\$90 million) by all industries. In 1958 the coverage ratio was also 97 percent.

#### 3579—OFFICE MACHINES, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing office machines and devices, n.e.c. Establishments primarily engaged in manufacturing computing machines and cash registers are classified in industry 3571, typewriters in industry 3572, and photocopy and microfilm equipment in industry 3861. For a detailed list of products of industry 3579, refer to table 6A, product codes 3579010 to 3579091.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Office Machines, N.E.C., Industry totaled \$349 million. This amount included shipments of office machines, n.e.c. (primary products) valued at \$223 million, shipments of other products (secondary products) valued at \$51 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$76 million.

This industry's shipments of office machines, n.e.c., represented 81 percent of its total product shipments. The industry specialization ratio in 1958 was 84 percent. Secondary products shipped by this industry in 1963 included other fabricated wire products, not produced by wire drawers (\$7 million), and computing and related machines (over \$4 million).

Shipments of office machines, n.e.c., by this industry represented 81 percent of all shipments of these products (\$276 million) by all industries. In 1958, the coverage ratio was 85 percent. Another industry shipping office machines, n.e.c., was industry 3315, Steel Wire Drawing, \$7 million.



OFFICE MACHINES, N.E.C.: SIC 357  
Value Added by Manufacture by State: 1963

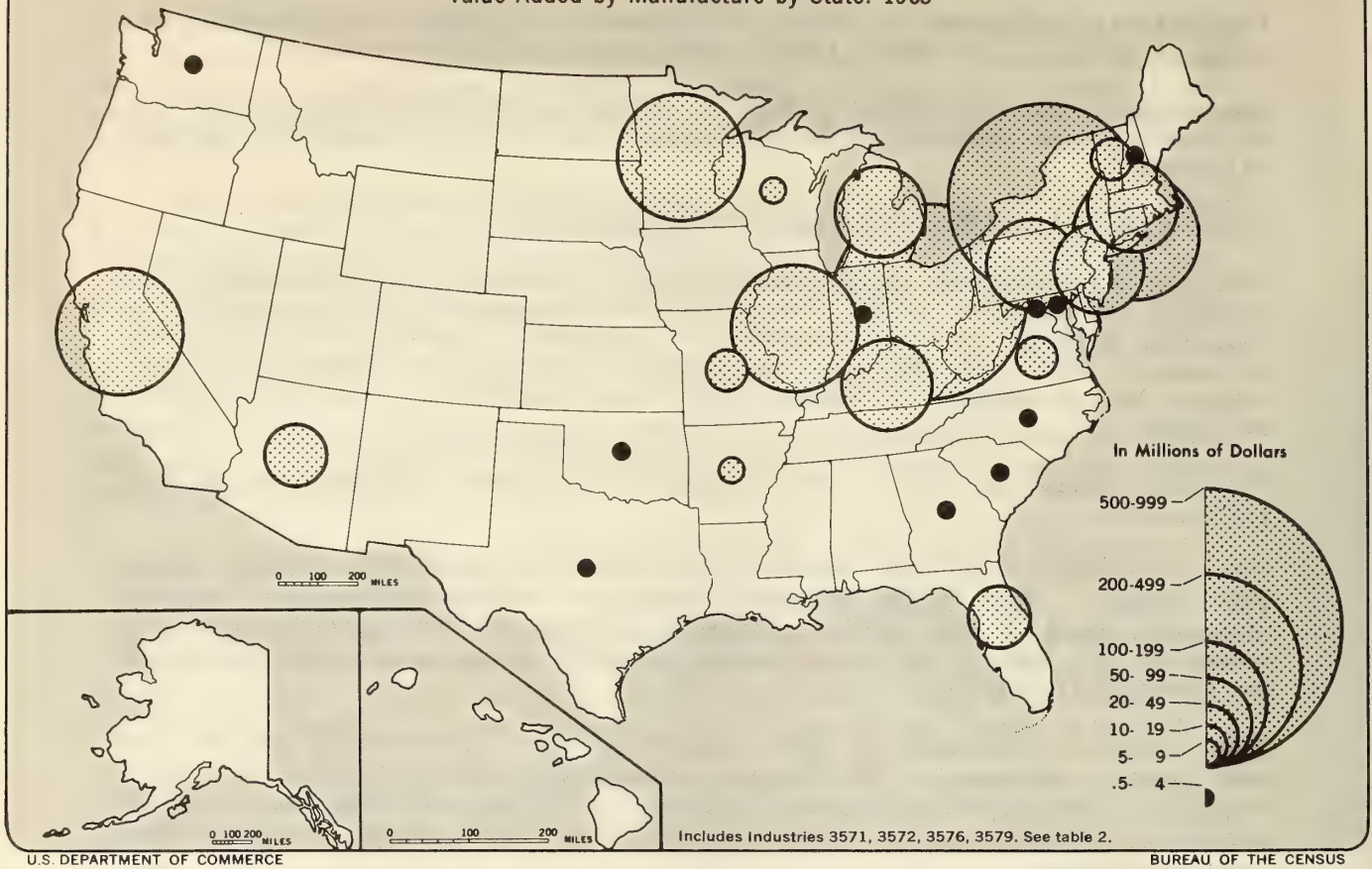


TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3571.—COMPUTING AND RELATED MACHINES														
1963.....	213	248	139	96,370	703,231	58,985	119,521	369,459	1,101,484	926,876	2,019,714	92,628	93	94
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	100,549	722,357	59,519	118,109	364,645	1,025,776	841,338	1,833,241	87,830	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	98,261	677,751	60,720	120,280	366,431	915,619	850,876	1,676,748	93,147	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	95,050	638,796	60,043	120,306	353,748	822,012	791,137	1,555,715	69,754	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	78,154	488,028	50,147	98,406	275,080	722,538	619,401	1,301,719	38,958	(NA)	(NA)
1958 <sup>2</sup> (New)...	119	136	71	80,864	473,455	50,523	98,497	269,013	579,103	528,065	1,104,194	61,494	94	91
1958 <sup>2</sup> (Old)...	(NA)	140	74	82,442	480,845	51,543	100,472	273,770	590,897	530,784	1,118,683	61,980	(NA)	(NA)
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	77,070	459,219	51,862	113,755	278,024	658,563	465,279	1,008,095	105,037	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	65,477	378,348	48,315	107,963	252,099	591,408	317,836	767,483	59,126	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	60,135	303,883	46,933	92,464	218,719	407,729	252,417	661,775	33,911	(NA)	(NA)
1954.....	73	84	51	56,692	275,809	45,014	88,484	200,953	405,414	202,217	614,265	31,571	78	93
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	56,789	259,182	46,287	91,363	198,307	384,634	186,031	570,665	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	53,256	238,180	43,869	86,615	184,008	342,369	138,053	480,422	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	49,974	217,304	41,792	85,079	167,431	310,100	114,837	424,937	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	42,664	167,293	35,911	73,065	133,015	260,684	84,676	345,360	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	41,112	152,913	35,602	71,863	125,605	230,387	73,302	303,689	(NA)	(NA)	(NA)
1947.....	50	51	29	45,611	152,678	40,467	85,445	127,569	231,207	62,262	293,469	22,295	94	94
1939 <sup>3</sup> .....	(NA)	38	(NA)	(NA)	(NA)	16,517	(NA)	25,798	71,929	10,400	82,329	(NA)	(NA)	(NA)
INDUSTRY 3572.—TYPEWRITERS														
1963.....	17	21	16	18,023	102,885	13,940	27,076	71,068	243,190	79,641	315,385	9,576	85	99
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,798	96,697	14,049	27,549	69,308	206,883	79,737	290,685	10,073	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,540	93,788	14,848	28,677	68,096	195,834	75,412	270,535	8,309	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,102	92,965	15,266	29,665	68,064	201,186	75,527	282,971	10,307	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,692	93,593	16,125	31,320	71,586	188,658	71,763	265,358	7,395	(NA)	(NA)
1958.....	16	18	13	19,779	84,467	16,310	29,748	64,612	168,877	67,691	238,173	9,880	82	99
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,058	95,026	21,043	40,676	81,610	214,757	76,893	265,076	30,426	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,075	86,703	19,466	38,554	74,588	182,116	58,202	229,849	13,775	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,931	75,935	18,147	35,064	68,165	162,328	47,808	207,056	2,704	(NA)	(NA)
1954.....	15	18	14	18,435	67,399	16,699	32,589	60,075	136,953	44,722	178,799	2,789	80	97
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,822	73,341	17,392	(NA)	62,248	135,121	46,466	181,587	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,057	73,627	18,567	(NA)	62,792	133,691	41,793	175,484	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,778	79,263	20,564	(NA)	69,701	141,155	36,739	177,894	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,692	61,408	17,906	(NA)	54,129	113,764	27,845	141,609	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,603	50,350	15,683	(NA)	43,830	87,704	27,227	114,931	(NA)	(NA)	(NA)
1947.....	23	28	(NA)	26,604	73,177	23,838	49,684	63,509	121,385	32,539	153,924	(NA)	90	97
1939.....	(NA)	18	(NA)	(NA)	(NA)	16,195	(NA)	19,214	29,096	10,830	39,926	(NA)	(NA)	(NA)
1937.....	(NA)	21	(NA)	22,930	28,488	21,440	(NA)	25,956	31,614	13,392	45,006	(NA)	(NA)	(NA)
1935.....	(NA)	20	(NA)	16,920	18,796	15,398	(NA)	16,632	25,228	8,630	33,858	(NA)	(NA)	(NA)
1933.....	(NA)	14	(NA)	10,361	8,549	9,591	(NA)	7,565	13,209	3,256	16,465	(NA)	(NA)	(NA)
1931.....	(NA)	20	(NA)	(NA)	(NA)	10,924	(NA)	10,328	18,272	3,785	22,057	(NA)	(NA)	(NA)
1929.....	(NA)	26	(NA)	18,409	25,656	16,945	(NA)	22,319	54,609	7,249	61,858	(NA)	(NA)	(NA)
1927.....	(NA)	26	(NA)	17,222	22,237	15,603	(NA)	19,398	45,383	9,936	55,319	(NA)	(NA)	(NA)
INDUSTRY 3576.—SCALES AND BALANCES														
1963.....	81	85	35	5,765	35,052	3,725	7,678	19,919	64,362	35,298	98,491	1,149	92	97
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,179	29,121	3,377	6,979	16,457	49,849	27,719	77,735	970	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,245	28,943	3,475	7,292	16,699	49,664	26,362	74,810	771	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,045	26,848	3,415	7,001	15,621	48,254	24,077	70,382	1,341	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,392	27,846	3,565	7,378	16,076	49,987	29,064	80,880	(1,842)	(NA)	(NA)
1958 <sup>2</sup> (New)...	71	72	32	5,347	26,574	3,515	6,886	14,974	49,125	27,844	78,335	1,406	91	97
1958 <sup>2</sup> (Old)...	(NA)	79	38	5,733	28,335	3,798	7,417	16,007	52,008	28,597	81,999	1,512	(NA)	(NA)
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,646	34,965	4,843	9,091	21,335	64,207	30,563	91,350	(S)	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,393	31,054	4,789	8,903	19,563	60,116	28,793	86,114	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,687	26,271	4,300	8,712	17,067	51,087	24,685	74,878	(S)	(NA)	(NA)
1954.....	77	78	35	5,381	21,276	4,074	7,636	14,193	45,535	20,135	64,182	1,103	90	96
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,683	26,061	4,659	9,705	15,991	53,548	25,104	78,652	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,519	24,300	5,166	10,688	16,681	46,080	31,693	77,773	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,117	24,676	4,443	8,838	13,365	42,426	20,671	63,097	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,122	19,639	4,385	8,249	11,991	38,013	16,764	54,777	(NA)	(NA)	(NA)
1947.....	73	75	32	6,526	18,849	4,385	10,041	12,847	34,766	19,776	54,542	1,457	91	92
1939.....	(NA)	56	(NA)	3,757	5,566	2,839	(NA)	3,306	9,363	4,987	14,350	(NA)	(NA)	(NA)
1937.....	(NA)	57	(NA)	4,139	5,797	3,299	(NA)	4,115	11,998	5,858	17,856	(NA)	(NA)	(NA)
1935.....	(NA)	56	(NA)	3,271	4,195	2,468	(NA)	2,633	9,567	3,816	13,383	(NA)	(NA)	(NA)

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spec- ial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
	INDUSTRY 3576.—SCALES AND BALANCES—Continued													
1933.....	(NA)	45	(NA)	2,896	2,883	2,187	(NA)	1,825	6,171	2,162	8,333	(NA)	(NA)	(NA)
1931.....	(NA)	54	(NA)	(NA)	(NA)	2,814	(NA)	3,233	3,644	10,917	14,561	(NA)	(NA)	(NA)
1929.....	(NA)	59	(NA)	6,183	8,845	4,118	(NA)	5,995	22,943	7,438	30,381	(NA)	(NA)	(NA)
1927.....	(NA)	60	(NA)	4,988	7,891	3,906	(NA)	5,461	17,201	7,454	24,655	(NA)	(NA)	(NA)
1925.....	(NA)	71	(NA)	5,397	8,242	4,292	(NA)	5,783	19,888	7,349	27,237	(NA)	(NA)	(NA)
1923.....	(NA)	65	(NA)	5,289	7,794	4,245	(NA)	5,500	17,563	6,594	24,157	(NA)	(NA)	(NA)
1921.....	(NA)	65	(NA)	4,804	6,290	3,720	(NA)	4,428	11,169	4,716	15,885	(NA)	(NA)	(NA)
1919.....	(NA)	79	(NA)	6,783	8,800	5,432	(NA)	6,534	13,647	6,994	20,641	(NA)	(NA)	(NA)
1914.....	(NA)	83	(NA)	5,443	4,168	4,467	(NA)	2,934	6,560	3,174	9,734	(NA)	(NA)	(NA)
1909.....	(NA)	87	(NA)	4,231	3,001	3,559	(NA)	2,186	6,082	2,704	8,786	(NA)	(NA)	(NA)
1904.....	(NA)	85	(NA)	3,564	2,231	3,133	(NA)	1,755	4,370	1,633	6,003	(NA)	(NA)	(NA)
1899.....	(NA)	86	(NA)	3,080	1,734	2,775	(NA)	1,437	3,707	1,533	5,240	(NA)	(NA)	(NA)
	INDUSTRY 3579.—OFFICE MACHINES, N.E.C.													
1963.....	158	161	75	16,980	104,053	11,616	22,996	63,258	224,654	126,658	349,210	16,257	81	81
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	(19,220)	(114,963)	(13,224)	(26,471)	(67,945)	(255,777)	(103,111)	(374,384)	(7,919)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,866	110,835	13,031	26,239	64,381	239,005	93,944	351,115	7,204	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,581	98,942	11,831	23,894	59,862	223,343	90,860	321,174	8,491	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,581	86,625	10,867	21,165	52,717	191,132	98,995	292,893	9,662	(NA)	(NA)
1958 <sup>2</sup> .....	119	120	72	15,625	82,984	10,600	21,227	50,108	173,424	90,596	264,513	11,817	84	85

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so that the 1958 figures for this industry are not strictly comparable with those for earlier years. The 1957 and earlier years are based on the old SIC definition of the industry.

<sup>3</sup>Comparable figures are not available for prior years.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
INDUSTRY 3571.—COMPUTING AND RELATED MACHINES													
Total.....	248	139	96,370	703,231	58,985	119,521	369,459	1,101,484	926,876	2,019,714	92,628	80,864	579,103
New England.....	27	16	3,494	21,403	2,467	5,519	12,305	50,306	34,942	83,616	2,596	2,791	17,215
Massachusetts.....	21	13	3,050	19,366	2,092	4,792	10,797	46,128	33,785	78,504	2,307	1,318	8,631
Middle Atlantic.....	72	35	33,814	264,731	17,987	37,171	116,047	296,120	436,725	738,841	41,096	35,517	193,238
New York.....	38	19	26,885	218,977	13,500	27,929	91,530	212,510	351,804	565,877	28,764	30,752	162,427
New Jersey.....	11	8	2,442	16,108	1,568	3,450	8,778	28,498	25,076	48,836	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Pennsylvania.....	23	8	4,487	29,646	2,919	5,792	15,739	55,112	59,845	124,128	(D)	( <sup>2</sup> )	( <sup>2</sup> )
East North Central..	34	18	26,577	186,515	21,849	42,981	146,342	323,064	133,275	467,615	11,574	31,071	280,206
West North Central..	17	11	11,632	82,679	6,049	12,510	35,108	195,516	141,993	312,111	19,587		
South.....	24	18	4,006	21,487	2,766	5,536	12,230	67,123	43,958	110,860	1,084	1,192	16,939
Maryland.....	5	4	173	1,374	115	247	903	897	2,449	4,144	69	( <sup>2</sup> )	( <sup>2</sup> )
West.....	74	41	16,847	126,416	7,867	15,804	47,427	169,355	135,983	306,671	16,691	10,293	71,505
INDUSTRY 3572.—TYPEWRITERS													
Total.....	21	16	18,023	102,885	13,940	27,076	71,068	243,190	79,641	315,385	9,576	19,779	168,877
Northeast:													
New York.....	7	5	6,975	34,809	5,794	11,329	27,415	86,338	26,648	110,746	1,801	9,237	81,097
All other States....	14	11	11,048	68,076	8,146	15,747	43,653	156,852	52,993	204,639	7,775	10,542	87,780
INDUSTRY 3576.—SCALES AND BALANCES													
Total.....	85	35	5,765	35,052	3,725	7,678	19,919	64,362	35,298	98,491	1,149	5,347	49,125
Northeast and North Central.....	61	29	5,421	32,600	3,478	7,164	18,241	59,814	32,697	91,302	1,080	( <sup>2</sup> )	( <sup>2</sup> )
New York.....	6	3	740	3,973	531	1,153	2,629	6,448	5,113	11,657	29	794	6,303
Pennsylvania.....	5	2	126	712	103	245	529	1,137	539	1,570	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Ohio.....	9	4	1,690	10,838	960	1,962	5,420	20,270	11,046	30,990	575	1,423	14,431
Illinois.....	14	10	1,078	6,044	732	1,434	3,251	13,043	6,840	19,657	282	1,108	10,520
South and West.....	24	6	344	2,452	247	514	1,678	4,548	2,601	7,189	69	( <sup>2</sup> )	( <sup>2</sup> )
California.....	11	5	274	2,028	199	409	1,416	3,732	2,150	5,914	66	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3579.—OFFICE MACHINES, N.E.C.													
Total.....	161	75	16,980	104,053	11,616	22,996	63,258	224,654	126,658	349,210	16,257	15,625	173,424
New England.....	20	10	4,270	27,757	3,007	6,187	17,957	59,470	23,669	83,731	2,715	4,372	48,258
Connecticut.....	11	6	3,547	23,817	2,454	5,021	15,342	51,303	17,282	69,450	2,010	( <sup>2</sup> )	( <sup>2</sup> )
Middle Atlantic.....	48	18	3,187	16,986	2,497	4,996	11,726	29,495	18,268	47,455	916	3,113	24,194
New York.....	29	11	1,866	9,475	1,494	3,053	6,743	17,531	11,479	28,861	567	1,674	14,507
New Jersey.....	13	5	1,208	6,893	912	1,766	4,573	10,675	5,846	16,355	281	1,103	7,738
Pennsylvania.....	6	2	113	618	91	177	410	1,289	943	2,239	68	336	1,949
North Central.....	53	28	8,220	52,815	5,135	9,801	29,568	125,940	78,864	202,534	11,607	7,395	94,349
Michigan.....	7	3	439	2,516	294	527	1,352	3,122	3,704	6,634	58	( <sup>2</sup> )	( <sup>2</sup> )
Minnesota.....	5	3	140	715	122	266	567	1,646	892	2,567	25	( <sup>2</sup> )	( <sup>2</sup> )
South and West.....	40	19	1,303	6,495	977	2,012	4,007	9,749	5,857	15,490	1,019	745	6,623

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3571, Computing and Related Machines: New England—New Hampshire, 1 (1-19); Vermont, 2 (20-99); Rhode Island, 1 (1-19); Connecticut, 2 (250-499); East North Central—Ohio, 5 (14,908); Indiana, 2 (20-99); Illinois, 11 (1,000-2,499); Michigan, 14 (5,000-9,999); Wisconsin, 2 (250-499); West North Central—Minnesota, 16 (10,000 and over); Kansas, 1 (1-19); South Atlantic—Virginia, 4 (1,000-2,499); North Carolina, 2 (20-99); South Carolina, 2 (250-499); Florida, 3 (1,000-2,499); West South Central—Arkansas, 1 (250-499); Louisiana, 1 (20-99); Oklahoma, 1 (20-99); Texas, 5 (324); Mountain—Colorado, 5 (20-99); New Mexico, 1 (20-99); Arizona, 2 (2,500-4,999); Pacific—Washington, 2 (100-249); California, 64 (13,738).

SIC 3572, Typewriters: New England—Connecticut, 3 (5,000-9,999); Middle Atlantic—New Jersey, 1 (250-499); East North Central—Illinois, 1 (100-249); Michigan, 1 (100-249); West North Central—Missouri, 1 (500-999); South Atlantic—Virginia, 1 (1-19); East South Central—Kentucky, 1 (20-99); Mountain—Colorado, 1 (1-19); Pacific—California, 1 (20-99).

SIC 3576, Scales and Balances: New England—New Hampshire, 1 (1-19); Vermont, 3 (1,000-2,499); Massachusetts, 3 (100-249); Connecticut, 1 (1-19); Middle Atlantic—New Jersey, 9 (500-999); East North Central—Indiana, 2 (20-99); Michigan, 1 (1-19); Wisconsin, 2 (1-19); West North Central—Minnesota, 1 (1-19); Missouri, 3 (20-99); Nebraska, 1 (1-19); South Atlantic—Maryland, 2 (1-19); District of Columbia, 1 (1-19); Georgia, 1 (20-99); Florida, 2 (1-19); East South Central—Alabama, 1 (1-19); West South Central—Oklahoma, 1 (1-19); Texas, 2 (1-19); Mountain—Colorado, 1 (1-19); Utah, 1 (1-19); Pacific—Oregon, 1 (1-19).

SIC 3579, Office Machines, N.E.C.: New England—New Hampshire, 1 (100-249); Massachusetts, 7 (500-999); Rhode Island, 1 (1-19); East North Central—Ohio, 7 (3,315); Indiana, 1 (1-19); Illinois, 27 (4,244); Wisconsin, 1 (1-19); West North Central—Iowa, 1 (1-19); Missouri, 3 (20-99); Kansas, 1 (1-19); South Atlantic—Maryland, 1 (20-99); District of Columbia, 2 (20-99); Virginia, 1 (20-99); North Carolina, 2 (250-499); South Carolina, 1 (20-99); Georgia, 3 (20-99); West South Central—Oklahoma, 1 (20-99); Texas, 6 (100-249); Mountain—Colorado, 1 (1-19); Arizona, 1 (1-19); Utah, 1 (1-19); Pacific—Washington, 3 (20-99); California, 17 (250-449).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.



TABLE 3. Detailed Statistics: 1963

Item	Computing and related machines (SIC 3571)	Typewriters (SIC 3572)	Scales and balances (SIC 3576)	Office machines, n.e.c. (SIC 3579)
Primary product specialization ratio <sup>1</sup> .....	.93	.85	.92	.81
Coverage ratio <sup>2</sup> .....	.94	.99	.97	.81
Establishments, total.....number..	248	21	85	161
With 1 to 19 employees.....do....	109	5	50	86
With 20 to 99 employees.....do....	59	4	20	47
With 100 employees or more.....do....	80	12	15	28
Proprietors and working partners.....do....	46	-	27	41
All employees (average for the year).....do....	96,370	18,023	5,765	16,980
Payroll (all employees), total for year.....\$1,000..	703,231	102,885	35,052	104,053
Production workers:				
Average for the year.....number..	58,985	13,940	3,725	11,616
March.....do....	58,614	14,397	3,576	11,440
May.....do....	57,551	13,866	3,691	11,613
August.....do....	58,472	13,739	3,802	11,588
November.....do....	61,289	13,754	3,829	11,843
Man-hours.....1,000..	119,521	27,076	7,678	22,996
January-March.....do....	30,323	7,207	1,862	5,952
April-June.....do....	29,904	6,992	1,972	6,000
July-September.....do....	27,060	5,980	1,876	5,362
October-December.....do....	32,234	6,900	1,998	5,682
Wages.....\$1,000..	369,459	71,068	19,919	63,258
Cost of materials, etc., total.....do....	926,876	79,641	35,298	126,658
Materials, parts, containers, and supplies consumed.....do....	846,766	73,871	32,049	77,836
Cost of resales.....do....	42,942	2,951	2,241	44,042
Fuels consumed.....do....	3,267	984	257	750
Electric energy:				
Purchased:				
Quantity.....million kw.-hrs..	578	108	23	95
Cost.....\$1,000..	6,951	1,426	410	1,336
Generated less sold.....million kw.-hrs..	(D)	-	(D)	-
Contract work.....\$1,000..	26,950	409	341	2,694
Value of shipments (including resales), total.....do....	2,019,714	315,385	98,491	349,210
Value of resales.....do....	60,579	7,031	2,472	69,453
Value added by manufacture, adjusted.....do....	1,101,484	243,190	64,362	224,654
Manufacturers' inventories:				
Beginning of year, total.....do....	642,545	57,072	22,394	86,684
Finished products.....do....	115,891	9,981	6,135	40,250
Work-in-process.....do....	452,511	38,934	11,813	34,704
Materials, supplies, fuel, etc.....do....	74,143	8,157	4,446	11,730
End of year, total.....do....	653,536	65,187	24,045	89,814
Finished products.....do....	114,303	13,191	7,100	41,509
Work-in-process.....do....	463,015	43,170	12,017	35,547
Materials, supplies, fuel, etc.....do....	76,218	8,826	4,928	12,758
Expenditures for plant and equipment, total.....do....	101,328	9,603	1,177	16,612
New, total.....do....	92,628	9,576	1,149	16,257
New structures and additions to plant.....do....	13,486	1,851	97	6,121
New machinery and equipment.....do....	79,142	7,725	1,052	10,136
Used plant and equipment.....do....	8,700	27	28	355
Selected operating ratios:				
Payroll/Total employment.....	7,298	5,709	6,080	6,128
Production workers/Total employment.....	.61	.77	.65	.68
Man-hours/Production workers.....	2,026	1,942	2,061	1,980
Production worker wages/Man-hours.....	3.09	2.62	2.59	2.75
Cost of materials and payrolls/Total value of shipments....	.81	.58	.71	.66
Cost of materials/Total value of shipments.....	.46	.25	.36	.36
Adjusted value added/Total employment.....	11,430	13,493	11,164	13,231
Salaries and wages/Adjusted value added.....	.64	.42	.54	.46

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3571.—COMPUTING AND RELATED MACHINES											
Establishments.....number..	248	54	23	32	36	23	25	24	10	11	10
All employees:											
Total.....do....	96,370	76	151	448	1,139	1,622	3,988	8,792	7,592	16,965	55,597
Payroll.....\$1,000..	703,231	544	1,118	2,908	7,100	11,683	26,312	54,416	42,212	113,598	443,340
Value added, adjusted.....do....	1,101,484	1,353	1,874	5,373	10,971	19,662	43,237	89,421	122,933	245,750	560,910
Value of shipments.....do....	2,019,714	1,731	2,760	7,288	18,498	29,349	61,800	141,158	247,757	370,811	1,138,562
Capital expenditures, new...do....	92,628	62	94	211	464	747	2,112	4,405	3,292	36,627	44,614
INDUSTRY 3572.—TYPEWRITERS											
Establishments.....number..	21	2	1	2	4	-	2	1	2	4	3
All employees:											
Total.....do....	18,023	41	(D)	(D)	421	-	(D)	1,901	(D)	6,417	9,243
Payroll.....\$1,000..	102,885	160	(D)	(D)	4,750	-	(D)	9,075	(D)	32,408	58,867
Value added, adjusted.....do....	243,190	364	(D)	(D)	2,083	-	(D)	27,861	(D)	79,516	133,366
Value of shipments.....do....	315,385	562	(D)	(D)	3,869	-	(D)	32,472	(D)	102,027	176,455
Capital expenditures, new...do....	9,576	22	(D)	(D)	53	-	(D)	503	(D)	1,664	7,334
INDUSTRY 3576.—SCALES AND BALANCES											
Establishments.....number..	85	32	9	9	14	6	10	2	2	1	-
All employees:											
Total.....do....	5,765	46	57	117	489	406	1,573	3,077	(D)	(D)	-
Payroll.....\$1,000..	35,052	328	339	812	3,002	2,634	9,186	18,751	(D)	(D)	-
Value added, adjusted.....do....	64,362	659	803	1,499	5,444	4,299	21,465	30,193	(D)	(D)	-
Value of shipments.....do....	98,491	1,021	1,226	2,670	9,471	6,779	32,642	44,682	(D)	(D)	-
Capital expenditures, new...do....	1,149	13	10	13	93	126	436	458	(D)	(D)	-
INDUSTRY 3579.—OFFICE MACHINES, N.E.C.											
Establishments.....number..	161	44	21	21	29	18	12	9	3	3	1
All employees:											
Total.....do....	16,980	55	133	282	925	1,237	2,077	2,892	1,984	7,395	(D)
Payroll.....\$1,000..	104,053	299	822	1,515	5,149	6,758	11,169	16,662	10,484	51,195	(D)
Value added, adjusted.....do....	224,654	732	1,306	2,371	8,443	12,087	21,708	23,256	17,789	136,962	(D)
Value of shipments.....do....	349,210	1,188	2,097	4,548	14,650	19,457	33,002	38,744	29,808	205,716	(D)
Capital expenditures, new...do....	16,257	466	(D)	162	423	614	939	818	504	12,331	(D)

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. n.e.c. Not elsewhere classified.

<sup>1</sup>Includes capital expenditures for plants under construction but not in operation of approximately \$200-\$500 thousand.

TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
						Col. B Col. B+C				Col. B Col. F
						(percent)				(percent)
						(\$1,000)				(\$1,000)
A	B	C	D	E	F	G	H	I		
3571	Computing and related machines...1963.. 1958..	2,019,714	1,752,266	122,371	145,077	93	1,858,501	1,752,266	106,235	94
		1,104,194	944,581	65,626	93,987	94	1,038,802	944,581	94,221	91
3572	Typewriter.....1963.. 1958..	315,385	261,947	45,137	8,301	85	265,456	261,947	3,509	99
		238,173	188,021	41,118	9,034	82	188,556	188,021	535	99
3576	Scales and balances.....1963.. 1958..	98,491	87,215	7,342	3,934	92	90,024	87,215	2,809	97
		78,335	68,565	7,122	2,648	91	70,992	68,565	2,427	97
3579	Office machines, n.e.c.....1963.. 1958..	349,210	222,651	51,038	75,521	81	275,806	222,651	53,155	81
		264,513	180,416	33,510	50,587	84	211,205	180,416	30,789	85

Note: See Introduction for an explanation of terms used.

n.e.c. Not elsewhere classified.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Computing and related machines (SIC 3571)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Computing and related machines (SIC 3571)	Other industries
	COMPUTING AND RELATED MACHINES INDUSTRY					COMPUTING AND RELATED MACHINES INDUSTRY—Continued			
	Total shipments and receipts of the industry.....	(X)	2,019,714	(X)	35712	Listing of other industries with over \$2 million shipments of primary products—continued:			
	Primary products, total.....	1,858,501	1,752,266	106,235		2542 Metal Partitions and Fixtures.....	(X)	(X)	(over 2)
35711	Electronic data processing machines, and associated equipment, except typewriters.....	879,600	837,923	41,677		3572 Typewriters.....	(X)	(X)	20,266
35712	Computing and accounting machines, including cash registers.....	970,255	905,800	64,455		3579 Office Machines, N.E.C.....	(X)	(X)	2,420
35710	Computing and related machines, n.e.c.....	8,646	8,543	103		3662 Radio, T.V. Communications Equipment, N.E.C.....	(X)	(X)	16,868
	Secondary products, total.....	(X)	122,371	(X)		3679 Electronic Components, N.E.C.....	(X)	(X)	(2-5)
19990	Ordnance and accessories, n.e.c..	(X)	(2-5)	(X)		3729 Aircraft Equipment, N.E.C...	(X)	(X)	3,985
27526	Other commercial printing.....	(X)	(2-5)	(X)		3821 Mechanical Measuring Devices.....	(X)	(X)	4,245
35790	Addressing, dictating, duplicating, and office machines, n.e.c.....	(X)	(5-10)	(X)			All industries	Typewriters (SIC 3572)	Other industries
36621	Commercial, industrial, and military electronic communication equipment (except broadcast equipment, space satellite-borne communications equipment (complete package)).....	(X)	(20-50)	(X)	35720	Typewriters and parts.....	(X)	315,385	(X)
36624	Electronic navigational aids (except missile-borne and space vehicle basin equipment).....	(X)	(2-5)	(X)	35712	Secondary products, total.....	265,456	261,947	3,509
36793	Resistors for electronic applications.....	(X)	(2-5)	(X)	35711	Computing and accounting machines, including cash registers.....	(X)	45,137	(X)
36795	Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks).....	(X)	(2-5)	(X)		Other secondary products, total... Electronic data processing machines and associated equipment, except typewriters.....	(X)	20,266	(X)
38213	Industrial process instruments...	(X)	(over 2)	(X)	35552	Other printing trades machinery.....	(X)	24,871	(X)
39550	Carbon paper, stencil paper, and inked ribbons.....	(X)	(2-5)	(X)	39550	Carbon paper, stencil paper, and inked ribbons.....	(X)	(over 2)	(X)
	Miscellaneous receipts, total.....	(X)	145,077	(X)		Miscellaneous receipts, total.....	(X)	(over 2)	(X)
	Contract and commission work....	(X)	4,691	(X)		Sales of products bought and resold.....	(X)	8,301	(X)
	Sales of products bought and resold.....	(X)	60,579	(X)		Other miscellaneous receipts.....	(X)	7,031	(X)
	Scrap and salable refuse.....	(X)	951	(X)			All industries	Scales and balances (SIC 3576)	Other industries
	Research and development work....	(X)	36,279	(X)					
	Miscellaneous repair work.....	(X)	1,660	(X)		SCALES AND BALANCES INDUSTRY			
	Other miscellaneous receipts.....	(X)	40,917	(X)		Total shipments and receipts of the industry.....	(X)	98,491	(X)
35711	Listing of other industries with over \$2 million shipments of primary products:				35760	Scales and balances, except laboratory.....	90,024	87,215	2,809
	3572 Typewriters.....	(X)	(X)	(over 2)		Secondary products, total.....	(X)	7,342	(X)
	3579 Office Machines, N.E.C.....	(X)	(X)	(over 2)		Other sheet metal work.....	(X)	(2-5)	(X)
	3611 Electric Measuring Instruments.....	(X)	(X)	(over 2)	34443				
	3662 Radio, T.V. Communications Equipment.....	(X)	(X)	27,174					

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Scales and balances (SIC 3576)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Office machines, n.e.c. (SIC 3579)	Other industries
	SCALES AND BALANCES INDUSTRY— Continued					OFFICE MACHINES N.E.C. INDUSTRY—Continued			
	Miscellaneous receipts, total.....	(X)	3,934	(X)		Secondary products continued:			
	Contract and commission work.....	(X)	469	(X)	28930	Other secondary products.....	(X)	41,501	(X)
	Sales of products bought and resold.....	(X)	2,472	(X)	35711	Printing ink.....	(X)	(2-5)	(X)
	Other miscellaneous receipts.....	(X)	993	(X)		Electronic data processing ma- chines and associated equip- ment, except typewriters.....	(X)	(over 2)	(X)
					39550	Carbon paper, stencil paper, and inked ribbons.....	(X)	(10-20)	(X)
		All industries	Office machines, n.e.c. (SIC 3579)	Other industries		Miscellaneous receipts, total.....	(X)	75,521	(X)
	OFFICE MACHINES N.E.C., INDUSTRY					Contract and commission work.....	(X)	1,495	(X)
	Total shipments and receipts of the industry.....	(X)	349,210	(X)		Sales of products bought and resold.....	(X)	69,453	(X)
35790	Addressing, dictating, duplicating, and office machines, n.e.c.....	275,806	222,651	53,155	35790	Receipts for repair work.....	(X)	1,865	(X)
	Secondary products, total.....	(X)	51,038	(X)		Other miscellaneous receipts.....	(X)	2,708	(X)
35712	Computing and accounting machines including cash registers.....	(X)	2,420	(X)		Listing of other industries with over 2 million shipments of primary products:			
34819	Other fabricated wire products not produced by wire drawers....	(X)	7,117	(X)		3315 Steel Wire Drawing, etc.....	(X)	(X)	6,729
						3552 Textile Machinery.....	(X)	(X)	(2-5)
						3555 Printing Trades Machinery...	(X)	(X)	(2-5)
						3571 Computing and Related Machines.....	(X)	(X)	(5-10)
						3871 Watches and Clocks.....	(X)	(X)	(5-10)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3571- --	COMPUTING AND RELATED MACHINES, TOTAL.....	(X)	1,858,501	(X)	1,038,802
35711 --	Electronic data processing machines, and associated equipment, except typewriters:				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	879,600	(X)	324,299
	As reported on Census Form MA-35R, total <sup>1</sup> .....	(X)	861,956	(X)	319,057
	Digital: <sup>2</sup>				
35711 01	General purpose.....	(NA)	774,227	<sup>3</sup> 3,180	297,635
35711 02	All other.....	(NA)	47,998	(NA)	
35711 03, 04	Analog <sup>2</sup> .....	(NA)	39,731	<sup>3</sup> 343	21,422
35712 --	Computing and accounting machines, including cash registers, total.....	(X)	970,255	(X)	708,681
	Products included in the census of manufactures and on Census Annual Form MA-35R:				
35712 12	As reported on the census of manufactures <sup>1</sup> .....	(X)	850,011	(X)	642,353
	As reported on Census Form MA-35R, total <sup>1</sup> .....	(X)	839,011	(X)	646,178
35712 01	Accounting and bookkeeping machines <sup>4</sup> .....	(X)	293,928	40,373	103,861
35712 11, 12	Punched card systems and cash registers <sup>5</sup> .....			(X)	194,398
	Adding machines:				
35712 21, 22	10 Keyboard (hand and electric).....	242,511	27,577	210,241	30,224
35712 23	Full keyboard hand.....	34,715	2,819	45,854	3,935
35712 24	Full keyboard electric.....	51,149	12,125	62,972	10,648
	Calculating machines:				
35712 32	Rotary electric calculating machines.....	56,305	31,828	63,549	33,491
35712 31, 33, 34, 35	Other (including key-driven electric, rotary hand, key-driven hand, and printing calculators).....	63,086	21,272	35,419	14,709
35712 41	Coin and currency handling machines <sup>6</sup> .....	17,404	5,777	(X)	6,211
35712 61, 62, 63, 64	Coded (stored) media data processing machines, other than punched card, sold separately (including accounting, bookkeeping and billing machines, with or without cash registers, key operated; adding machines, calculating machines; and coded (stored) media data processing machines, n.e.c.....	35,340	99,641	12,451	26,673
35712 75	Parts and attachments shipped by establishments manufacturing complete office, computing, and accounting machines.....	(X)	314,234	(X)	176,193
35712 80, 95	Rebuilt computing and accounting machines; rebuilt cash registers; and other computing machines and calculating devices, n.e.c.....	(X)	29,810	(X)	45,835
35712 96, 97	Parts and attachments shipped by establishments not manufacturing complete office, computing, and accounting machines; and other computing and related machines not included on Census Annual Form MA-35R <sup>7</sup> .....	(X)	120,244	(X)	66,328
35710 00	Computing and related machines, n.s.k.....	(X)	8,646	(X)	5,822
3572- --	TYPEWRITERS AND PARTS, TOTAL.....	(X)	265,456	(X)	188,556
	Total, excluding parts and attachments produced by other than complete machine manufactures:				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	<sup>8</sup> 263,781	(X)	<sup>8</sup> 187,450
	As reported on Census Annual Form MA-35R <sup>1</sup> .....	(X)	<sup>9</sup> 260,390	(X)	<sup>9</sup> 183,612
	Standard (nonportable):				
35720 01	Electric.....	447,671	123,942	199,613	55,388
35720 02	Manual.....	355,626	49,560	354,042	48,497
35720 05- 11	Standard (portable), and specialized typewriters <sup>10</sup> .....	503,262	70,631	669,853	61,011
35720 15	Parts and attachments for typewriters.....	(X)	16,257	(X)	18,716
35720 98	Parts and attachments for typewriters produced by other than complete machine manufacturers.....	(X)	1,675	(X)	1,106
3576- --	SCALES AND BALANCES, EXCEPT LABORATORY.....	(X)	90,024	(X)	70,992
35760 11	Railroad track and motor truck scales.....	3,040	12,146	(NA)	6,477
	Industrial scales:				
35760 21	Bench and portable.....	(X)	6,319	(X)	6,988
35760 23	Floor scales (including built-in and dormant).....	(X)	3,801	(X)	2,961

See footnotes at end of table.

TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3576- --	SCALES AND BALANCES, EXCEPT LABORATORY—Continued				
	Industrial scales:				
35760 25	Predetermined weighing and check weighing scales, all types (except automatic bulk material weighers, fillers, and batching proportioners)...	(X)	8,693	(X)	11,695
35760 27	Automatic bulk material weighers, predetermined weight type, for weighing, filling, batching and proportioning.....	(X)	6,024		
35760 29	Miscellaneous industrial scales (including special purpose, crane, suspension, tank, hopper, force measuring devices, and conveyor scales—weigh and feed for bulk materials).....	(X)	10,242		
	Retail and commercial scales:				
35760 31	Computing.....	(NA)	12,122	29,000	11,627
35760 35	Miscellaneous (including noncomputing counter, cotton beams and steel yards, egg-grading scales, and hanging scales for retail use).....	(X)	2,487	(X)	1,329
	Household and person-weighing scales:				
35760 41	Bathroom.....	3,470,000	11,002	2,936,000	10,884
35760 43	Person-weighing scales, coin-operated and free weighing, except baby scales.....	32,000	1,130	24,000	1,293
35760 48	Miscellaneous (kitchen, baby scales, etc.).....	(X)	1,185	(X)	1,429
35760 51	Mailing and parcel post scales.....	326,000	2,891	126,000	2,025
35760 82	Accessories and attachments (sold separately).....	(X)	2,599	(X)	4,881
35760 84	Parts for scales and balances (sold for assembly elsewhere, repair, service, etc.).....	(X)	5,947		
35760 00	Scales and balances, except laboratory, n.s.k.....	(X)	3,436	(X)	2,159
3579- --	OFFICE MACHINES, N.E.C., TOTAL.....	(X)	275,806	(X)	211,205
	Products included in the census of manufactures and on Census Annual Form MA-35R:				
35790 10	As reported in the census of manufactures <sup>1</sup> .....	(X)	246,908	(X)	183,227
	As reported on Census Annual Form MA-35R, total <sup>1</sup> .....	(X)	250,407	(X)	184,452
	Duplicating machines:				
	Spirit machines:				
35790 11	Hand.....	21,756	2,721	21,118	2,696
35790 12	Electric.....	14,062	3,997	6,667	2,593
35790 16	Offset.....	11,815	23,405	9,806	15,572
35790 13, 14	Stencil machines (hand and electric).....	36,800	5,617	59,162	5,508
35790 15, 17	Gelatin and other type machines, including ribbon and ink.....			11,248	1,669
35790 19	Parts and attachments for duplicating machines shipped by establishments manufacturing complete duplicating machines.....	(X)	11,014	(X)	5,939
	Office machines, n.e.c.:				
35790 27	Autographic registers.....	103,906	1,768	101,376	1,389
35790 29	Dictating machines <sup>11</sup> .....	130,147	31,081	91,419	20,546
35790 31	Check handling machines <sup>12</sup> .....	132,061	24,497	110,478	13,118
35790 33	Time recording and time stamp machines, including watchmen's clocks.....	80,975	9,111	(NA)	11,257
35790 21, 22, 23, 24, 25	Other office, computing, and accounting machines, n.e.c. <sup>13</sup> .....	(X)	104,379	(X)	88,030
35790 35	Parts and attachments for office machines, n.e.c., except duplicating machine parts, shipped by establishments manufacturing complete office, computing, and accounting machines.....	(X)	32,817	(X)	16,135
35790 91	Parts and attachments shipped by establishments not manufacturing complete office machines, n.e.c.....	(X)	19,779	(X)	18,570
35790 00	Office machines, n.e.c., n.s.k.....	(X)	9,119	(X)	9,408

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>For these products, data were also collected on Annual Form MA-35R, "Office, Computing and Accounting Machines." In lieu of asking for detailed statistics on these products in the census of manufactures, respondents were asked to report only value of shipments for specified classes of products for which separate figures had previously been collected on the annual form. In most cases, the value figures reported in the census of manufactures for each class of products agreed closely with the corresponding figures reported in the annual survey. However, there were some differences between the census figures and the annual survey figures. These variations were due primarily to the following reasons:

- Use of different reporting periods (calendar year vs. fiscal year.)
- Use of different bases for reporting value (company sales vs. factory production.)
- Use of estimates in reporting data on the annual survey, whereas census of manufactures figures generally represent more exact shipments figures.

Footnotes continued on next page.



**TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Footnotes for Table 6A-35F—Continued

<sup>2</sup>Figures include in some cases leased machines as well as machines sold outright. For leased machines the value reported in most instances represents the value placed on such equipment for tax, insurance, or similar purposes.

<sup>3</sup>Represents the number of complete systems.

<sup>4</sup>Includes billing machines with accounting registers.

<sup>5</sup>The number of cash registers shipped during 1963 and 1958 totaled 87,606 and 81,021, respectively.

<sup>6</sup>Includes manual change makers, coin counting and sorting, currency counting, and payroll denominating machines.

<sup>7</sup>Computing and related machines not included on Census Annual Form MA-35R consist primarily of automatic voting booths, electronic toll collecting equipment, and pari-mutual computing devices for racetracks.

<sup>8</sup>Includes rebuilt typewriters for which separate data cannot be shown without disclosing figures of individual companies.

<sup>9</sup>Data on typewriters are also published monthly in Current Industrial Reports Series M35C "Typewriters."

<sup>10</sup>Includes coded (stored) media typewriters, continuous form handling machines, billing machines without accounting registers, office composing machines, stencil cutting typewriters, and reproduction typewriters.

<sup>11</sup>Includes dictating, transcribing and recording machines (disc, wire, and tape) designed as office machines (conference recording, combination dictating and telephone recording, etc.) but excludes wire and tape recorders.

<sup>12</sup>Includes cancelling, cutting, dating, endorsing, numbering, protecting, signing, sorting, and writing machines.

<sup>13</sup>Includes addressing and plate embossing machines; postage meters and postal permit mailing machines; shorthand writing machines; rebuilt office, computing, and accounting machines, n.e.c.; staplers; tape dispensers; envelope opening and sealing machines; label gummers; and price marking machines, etc.

**TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
357	Office machines, n.e.c.....1963..	(1)	(1)
	1958..	(1)	(1)
3571	Computing and related machines.....1963..	(1)	(1)
	1958..	(1)	(1)
3572	Typewriters and parts.....1963..	158	119
	1958..	116	115
3576	Scales and balances, except laboratory.....1963..	(1)	(1)
	1958..	(1)	(1)
3579	Office machines, n.e.c.....1963..	(1)	(1)
	1958..	(1)	(1)

n.e.c. Not elsewhere classified.

<sup>1</sup>Not shown because comparable quantity data were not obtained for a significant portion of these products.

TABLE 6C. **Product Classes—Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3571	Computing and related machines .....	<sup>2</sup> 1,840,857	<sup>2</sup> 1,676,847	<sup>2</sup> 1,472,618	<sup>2</sup> 1,297,183	<sup>2</sup> 1,123,777	<sup>2</sup> 1,033,560	482,729	(NA)
35711	Electronic data processing machines and associated equipment, except typewriters..	<sup>3</sup> 861,956	<sup>3</sup> 685,857	<sup>3</sup> 545,507	<sup>3</sup> 472,489	<sup>3</sup> 317,673	<sup>3</sup> 319,057	482,729	(NA)
35712	Computing and accounting machines, including cash registers .....	970,255	989,128	924,855	821,501	803,770	708,681		
35710	Computing and related machines, n.s.k.....	8,646	(1,862)	(2,256)	(3,193)	(2,334)	5,822		
35720	Typewriters and parts .....	265,456	243,643	212,906	218,160	206,456	188,556	141,677	140,163
35760	Scales and balances, except laboratory .....	90,024	70,037	65,918	65,863	75,037	70,992	56,750	49,445
35790	Addressing, dictating, duplicating, and office machines, n.e.c. ....	275,806	278,739	266,220	243,607	222,182	211,205	159,239	110,554

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>These figures represent the sum of 5-digit product class data obtained from Current Industrial Reports Series M35R and the census of manufactures or the annual survey of manufactures.

<sup>3</sup>Source: Current Industrial Reports Series M35R "Office Computing and Accounting Machines."

TABLE 6D. **Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments
ELECTRONIC DATA PROCESSING MACHINES, AND ASSOCIATED EQUIPMENT, EXCEPT TYPEWRITERS (35711)	1963 <sup>1</sup>	COMPUTING AND ACCOUNTING MACHINES, INCLUDING CASH REGISTERS (35712)—Con.	1963 <sup>1</sup>	ADDRESSING, DICTATING DUPLICATING AND OFFICE MACHINES, N.E.C. (35790)—Continued	1963 <sup>1</sup>
United States, total....	879,600	Middle Atlantic.....	341,158	Middle Atlantic.....	38,964
Northeast.....	57,429	New York.....	304,246	New York.....	25,058
Middle Atlantic.....	325,632	New Jersey.....	16,084	New Jersey.....	11,841
North Central.....	209,315	Pennsylvania.....	20,828	Pennsylvania.....	2,065
South.....	78,119	East North Central.....	372,848	East North Central.....	123,546
Texas.....	4,295	West North Central.....	101,224	Ohio.....	59,958
West.....	209,105	South.....	34,512	Illinois.....	53,361
		West.....	91,698	Michigan.....	9,845
COMPUTING AND ACCOUNTING MACHINES, INCLUDING CASH REGISTERS (35712)		ADDRESSING, DICTATING DUPLICATING AND OFFICE MACHINES, N.E.C. (35790)		West North Central.....	7,164
United States, total....	970,255	United States, total...	275,806	Minnesota.....	6,113
Northeast.....	28,815	Northeast.....	82,809	South.....	16,768
Massachusetts.....	19,216	Massachusetts.....	15,678	District of Columbia....	1,054
Connecticut.....	5,018	Connecticut.....	61,720	West.....	6,555
				California.....	6,028

n.e.c. Not elsewhere classified.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 35711, Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Ohio, Michigan, Wisconsin, Minnesota, Iowa, Virginia, Florida, Kentucky, Arizona, and California; 35712, Vermont, Ohio, Illinois, Michigan, Wisconsin, Minnesota, Maryland, Virginia, South Carolina, Florida, Kentucky, Arkansas, Washington, and California; 35790, New Hampshire, Rhode Island, North Carolina, Georgia, and Kentucky.



TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3571.—COMPUTING AND RELATED MACHINES			
	Materials, parts, containers, and supplies, total.....		(X)	846,766	(X)	469,376
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	11,032	3,248	12,609	3,687
331012	Sheet and strip.....	..do.....	22,944	5,571	25,411	6,080
331015	Structural shapes.....	..do.....	1,409	360	2,434	545
331017	Wire and wire products.....	..do.....	228	289	955	1,024
331019	All other carbon steel mill shapes and forms.....	..do.....	2,114	729	1,181	526
331020	Alloy steel (except stainless).....	..do.....	2,507	2,046	1,365	882
331031	Stainless steel.....	..do.....	804	1,219	258	303
	Copper and copper-base alloy:					
335728	Bare wire for electrical conduction.....	1,000 lbs.....	5,719	4,387	(NA)	(NA)
335790	Insulated wire and cable.....	1,000 lbs. copper content.				
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	771	545	(NA)	(NA)
335123	Plate, sheet, and strip (including military cups and discs)....	..do.....	2,381	2,937	(NA)	(NA)
335127	Pipe and tube.....	..do.....	307	293	(NA)	(NA)
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	..do.....	1,937	1,384	695	487
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	..do.....	1,580	1,115	1,124	640
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	..do.....	714	395		
	Castings (rough and semifinished): <sup>1</sup>					
332300	Steel.....	Short tons.....	592	595	298	246
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	2,698	3,160	1,379	1,141
	Electric motors and generators: <sup>1</sup>					
	Fractional horsepower electric motors (under 1 hp.):					
362110	Timing motors, synchronous and subsynchronous.....	Number.....	(NA)	1,613	285,602	632
362115	Fractional horsepower electric motors.....	..do.....	353,246	7,920	287,110	5,135
362120	Integral horsepower motors and generators (1 hp. and over).....	..do.....	12,982	4,072	2,576	581
	Bearings:					
356218	Ball.....		(X)	3,146	(X)	24,000
356228	Roller.....		(X)	234		
367010	Electron tubes, except X-ray <sup>1</sup> .....	1,000.....	1,071	2,452	(NA)	(NA)
367408	Solid state semiconductors <sup>1</sup> .....	..do.....	257,243	100,830	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	673,941	(X)	437,817
976000	Materials and components, n.s.k. <sup>3</sup> .....		(X)	24,285	(X)	5,650
			INDUSTRY 3572.—TYPEWRITERS			
	Materials, parts, containers, and supplies, total.....		(X)	73,671	(X)	60,348
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	5,864	1,464	9,074	3,648
331012	Sheet and strip.....	..do.....	20,177	5,265	13,044	2,955
331017	Wire and wire products.....	..do.....	1,678	350	522	451
331015	Structural shapes.....	..do.....	759	301		
331019	All other carbon steel mill shapes and forms.....	..do.....				
331020	Alloy steel (except stainless).....	..do.....	512	297	389	343
331031	Stainless steel.....	..do.....	122	166	78	104
	Copper and copper-base alloy:					
335790	Insulated wire and cable.....	1,000 lbs. copper content.	(D)	(D)	(NA)	(NA)
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	(D)	(D)	(NA)	(NA)
335123	Plate, sheet, and strip (including military cups and discs)....	..do.....				
335127	Pipe and tube.....	..do.....				
	Aluminum and aluminum-base alloy:					
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	..do.....	796	693	1,125	935
335202	Sheet, plate, and foil.....	..do.....	569	253		
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar powder, welded tubing).....	..do.....				
	Castings (rough and semifinished): <sup>1</sup>					
332300	Steel.....	Short tons.....	2,982	1,474	1,824	827
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	4,519	3,719	3,665	2,676

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
INDUSTRY 3572.—TYPEWRITERS—Continued						
362110	Electric motors and generators: <sup>1</sup>					
362115	Fractional horsepower electric motors (under 1 hp.):	Number.....	(D)	(D)	320,960	2,334
	Timing motors, synchronous and subsynchronous.....	..do.....	688,343	4,106		
	Fractional horsepower electric motors (except timing motors)...	..do.....				
356218	Bearings:					
356228	Ball.....	.....	(X)	530	(NA)	(NA)
	Roller.....	.....				
367010	Electron tubes, except X-ray <sup>1</sup> .....	1,000.....	(D)	(D)	(NA)	(NA)
367408	Solid state semiconductors <sup>1</sup> .....	..do.....	(D)	(D)	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	53,742	(X)	45,960
976000	Materials and components, n.s.k.....	.....	(X)	1,511	(X)	115
INDUSTRY 3576.—SCALES AND BALANCES						
	Materials, parts, containers, and supplies, total.....	.....	(X)	32,049	(X)	26,147
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	2,098	536	2,455	614
331012	Sheet and strip.....	..do.....	22,545	3,465	19,666	4,112
331015	Structural shapes.....	..do.....	4,676	908	4,244	810
331017	Wire and wire products.....	..do.....	133	46	140	118
331019	All other carbon steel mill shapes and forms.....	..do.....	2,098	461	3,212	685
331020	Alloy steel (except stainless).....	..do.....	144	118	215	211
331031	Stainless steel.....	..do.....	432	573	321	406
335790	Copper and copper-base alloy:					
	Insulated wire and cable.....	1,000 lbs. copper content.	(D)	(D)	(NA)	(NA)
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	(D)	(D)	(NA)	(NA)
335123	Plate, sheet, and strip (including military cups and discs)....	..do.....				
335127	Pipe and tube.....	..do.....				
335202	Aluminum and aluminum base alloy:					
335205	Sheet, plate and foil.....	..do.....	434	419	418	227
335209	Extruded shapes (including extruded rod, bar, pipe tube, etc.).	..do.....	17	21		
	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	..do.....				
332300	Castings (rough and semifinished): <sup>1</sup>					
336100	Steel.....	Short tons.....	235	199	668	345
	Aluminum and aluminum-base alloy.....	1,000 lbs.....	2,450	1,573	2,032	1,490
362110	Electric motors and generators: <sup>1</sup>					
362115	Fractional horsepower electric motors (under 1 hp.)	Number.....	2,600	51	5,335	198
	Timing motors, synchronous and subsynchronous.....	..do.....	10,944	303		
362120	Other fractional horsepower electric motors.....	..do.....				
	Integral horsepower motors and generators (1 hp. and over).....	..do.....	(NA)	54	5,718	286
356218	Bearings:					
356228	Ball.....	.....	(X)	89	(X)	(NA)
	Roller.....	.....				
367010	Electron tubes, except X-ray <sup>1</sup> .....	1,000.....	(D)	(D)	(NA)	(NA)
367408	Solid state semiconductors <sup>1</sup> .....	..do.....	(D)	(D)	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	16,264	(X)	14,873
976000	Materials and components, n.s.k. <sup>3</sup> .....	.....	(X)	6,969	(X)	1,772
INDUSTRY 3579.—OFFICE MACHINES, N.E.C.						
	Materials, parts, containers, and supplies, total.....	.....	(X)	77,836	(X)	66,555
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	4,387	1,367	2,460	654
331012	Sheet and strip.....	..do.....	15,275	3,821	12,042	2,736
331017	Wire and wire products.....	..do.....	5,720	2,483	2,399	996
331015	Structural shapes.....	..do.....	3,941	1,325	332	81
331019	All other carbon steel mill shapes and forms.....	..do.....			3,508	890

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
INDUSTRY 3579.—OFFICE MACHINES, N.E.C.—Continued						
331020	Alloy steel (except stainless).....	Short tons.....	664	517	1,021	831
331031	Stainless steel.....	...do.....	369	507	298	510
Copper and copper-base alloy:						
335728	Bare wire ( for electrical conduction).....	1,000 lbs.....	340	318	(NA)	(NA)
335790	Insulated wire and cable.....	1,000 lbs, copper content.				
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	274	183	(NA)	(NA)
335123	Plate, sheet, and strip (including military cups and discs)....	...do.....	637	547	(NA)	(NA)
335127	Pipe and tube.....	...do.....	21	21	(NA)	(NA)
Aluminum and aluminum-base alloy:						
335202	Sheet, plate and foil.....	...do.....	928	639	646	433
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	...do.....	768	649	458	364
335209	All other aluminum mill shapes and forms.....	...do.....	911	907		
Castings (rough and semifinished): <sup>1</sup>						
332300	Steel.....	Short tons.....	579	344	147	155
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	1,582	1,494	1,697	1,789
Electric motors and generators: <sup>1</sup>						
Fractional horsepower electric motors (under 1 hp.):						
362110	Timing motors, synchronous and subsynchronous.....	Number.....	50,321	220	185,355	734
362115	Fractional horsepower electric motors.....	...do.....	150,474	1,885	88,756	1,084
362120	Integral horsepower motors and generators (1 hp. and over).....	...do.....	(D)	(D)	(NA)	(NA)
Bearings:						
356218	Ball.....	.....	(X)	466	(NA)	(NA)
356228	Roller.....	.....				
367010	Electron tubes except X-ray <sup>1</sup> .....	1,000.....	76	77	(NA)	(NA)
367408	Solid state semiconductors <sup>1</sup> .....	...do.....	1,105	226	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	43,269	(X)	48,366
976000	Materials and components, n.s.k. <sup>3</sup> .....	.....	(X)	16,571	(X)	6,932

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>No data are available for castings, electric motors and generators, electron tubes or solid state semiconductors produced and consumed in the same establishment.

<sup>2</sup>Represents estimates published in MC58(1)-7 (Supplement), "Selected Materials Consumed," from data collected in a supplemental survey on Form MA-131, "Consumption of Materials, Parts, Containers and Supplies During 1958." This survey was limited to large establishments in selected chemical, machinery and equipment industries and resulted in estimates which are subject to greater error than are the figures on materials consumption collected as a regular part of the census of manufactures.

<sup>3</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

Item	Computing and related machines (SIC 3571)	Typewriters (SIC 3572)	Scales and balances (SIC 3576)	Office machines, n.e.c. (SIC 3579)
Total cost of purchased fuels and electric energy.....\$1,000..	10,281	2,319	577	2,077
Total cost of purchased fuels.....do....	3,223	1,054	224	784
Bituminous coal, lignite, and anthracite:				
Quantity.....1,000 short tons..	107	(S)	(S)	26
Cost.....\$1,000..	908	(S)	(S)	211
Coke and breeze:				
Quantity.....1,000 short tons..	-	-	-	-
Cost.....\$1,000..	-	-	-	-
Fuel oil (distillate and residual):				
Quantity.....1,000 barrels of 42 gallons..	458	73	21	92
Cost.....\$1,000..	1,268	215	82	281
Gas (natural, manufactured, still, blast furnace, and coke oven):				
Quantity.....million cu.ft..	1,303	1,059	61	296
Cost.....\$1,000..	726	613	45	196
Other fuels.....do....	321	(S)	(S)	96
Electric energy:				
Purchased:				
Quantity.....million kw.-hrs..	569	99	17	87
Cost.....\$1,000..	7,058	1,265	353	1,293
Generated less sold.....million kw.-hrs..	69	-	(S)	-
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	202	38	15	53
Prime movers, total.....do....	34	9	1	5
Driving generators.....do....	28	(Z)	1	(Z)
Not driving generators.....do....	6	9	(Z)	5
Electric motors, total.....do....	198	29	14	48
Driven by purchased energy.....do....	168	29	14	48
Driven by energy generated at establishment.....do....	30	-	(Z)	-
Aggregate horsepower per 100 production workers.....	339	270	444	401

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower. n.e.c Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3571	COMPUTING AND RELATED MACHINES										
	Entire industry.....	248	96,370	703,231	58,985	119,521	369,459	1,101,484	926,876	2,019,714	92,628
	Establishments with--										
	90% or more specialization..	205	77,762	564,486	46,672	94,888	291,580	975,586	742,911	1,712,467	79,249
	75-89% specialization.....	12	2,222	13,096	1,675	3,489	8,769	17,192	10,180	27,686	508
35711	Electronic data processing machines and associated equipment, except typewriters (primary product class of estab.).....	77	36,385	278,827	17,736	36,195	110,177	478,355	467,279	907,753	50,968
	Establishments with--										
	90% or more specialization....	55	15,064	111,353	6,731	13,818	37,860	220,982	223,151	424,878	32,642
35712	Computing and accounting machines, including cash registers (primary product class of estab.).....	94	58,605	416,783	40,248	81,226	254,183	611,031	453,916	1,096,387	41,053
	Establishments with--										
	90% or more specialization....	63	20,694	136,637	13,850	27,762	77,466	206,522	155,196	374,486	14,724
3572	TYPEWRITERS										
	Entire industry.....	21	18,023	102,885	13,940	27,076	71,068	243,190	79,641	315,385	9,576
	Establishments with--										
	90% or more specialization..	12	10,252	50,618	8,709	16,728	40,926	106,939	27,946	134,522	2,152
3579	OFFICE MACHINES, N.E.C.										
	Entire industry.....	161	16,980	104,053	11,616	22,996	63,258	224,654	126,658	349,210	16,257
	Establishments with--										
	90% or more specialization..	122	9,362	61,042	6,546	12,905	38,620	147,413	64,684	208,862	12,093
	75-89% specialization.....	11	1,247	7,109	914	1,879	4,390	10,932	8,756	19,589	349

N.E.C. Not elsewhere classified.

TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3571.—COMPUTING AND RELATED MACHINES							
Ferrous foundry.....	2	1	-	1	(D)	(D)	-	(D)
Nonferrous foundry (except die casting).....	2	-	2	-	(D)	-	(D)	-
Forging--presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	1	-	1	-	(D)	-	(D)	-
Electroplating and other plating.....	31	9	11	11	809	15	100	694
Galvanizing and other hot dip coating.....	2	1	1	-	(D)	(D)	(D)	-
Heat treating of metals.....	24	13	7	4	388	23	63	302
Automatic screw machine department.....	19	4	6	9	630	7	58	565
Machine shop.....	93	37	28	28	3,196	71	292	2,833
Tool and die shop.....	41	12	10	19	1,971	17	89	1,865
Plate or structural fabrication.....	9	7	-	2	58	(D)	-	(D)
Stamping, blanking and forming of metals.....	50	22	9	19	1,680	36	98	1,546
Painting, lacquering and enameling on metals.....	37	23	8	6	399	32	87	280
Plastics molding.....	10	4	3	3	180	8	41	131
Assembly of product.....	108	21	20	67	20,665	33	207	20,425
Shipping department, including packing and crating...	98	65	24	9	860	104	260	496
	INDUSTRY 3572.—TYPEWRITERS							
Nonferrous foundry (except die casting).....	1	1	-	-	(D)	(D)	-	-
Electroplating and other plating.....	9	1	3	5	246	(D)	(D)	208
Heat treating of metals.....	9	2	4	3	162	(D)	(D)	108
Automatic screw machine department.....	9	2	1	6	381	(D)	(D)	360
Machine shop.....	11	3	1	7	1,193	(D)	(D)	1,177
Tool and die shop.....	12	2	3	7	524	(D)	(D)	495
Plate or structural fabrication.....	1	1	-	-	(D)	(D)	-	-
Stamping, blanking and forming of metals.....	11	-	4	7	987	-	41	946
Painting, lacquering and enameling on metals.....	9	2	3	4	230	(D)	(D)	189
Plastics molding.....	7	-	3	4	200	-	23	177
Assembly of product.....	13	3	-	10	5,764	11	-	5,753
Shipping department, including packing and crating...	12	4	4	4	217	7	45	165
	INDUSTRY 3576.—SCALES AND BALANCES							
Ferrous foundry.....	3	-	-	3	205	-	-	205
Nonferrous foundry (except die castings).....	1	-	-	1	(D)	-	-	(D)
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	1	1	-	-	(D)	(D)	-	-
Electroplating and other plating.....	2	1	-	1	(D)	(D)	-	(D)
Heat treating of metals.....	6	4	2	-	24	(D)	(D)	-
Automatic screw machine department.....	6	3	1	2	68	9	(D)	(D)
Machine shop.....	30	9	13	8	577	22	112	443
Tool and die shop.....	12	6	4	2	96	13	(D)	(D)
Plate or structural fabrication.....	18	8	10	-	102	17	85	-
Stamping, blanking and forming of metals.....	17	9	5	3	171	15	55	101
Painting, lacquering and enameling on metals.....	29	22	6	1	136	44	(D)	(D)
Assembly of product.....	38	12	14	12	885	20	120	745
Shipping department, including packing and crating...	34	24	9	1	115	37	(D)	(D)

See footnotes at end of table.



TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963—Continued

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3579.—OFFICE MACHINES, N.E.C.							
Nonferrous foundry (except die casting).....	1	-	1	-	(D)	-	(D)	-
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	1	1	-	-	(D)	(D)	-	-
Electroplating and other plating.....	16	8	6	2	156	18	(D)	(D)
Galvanizing and other hot dip coating.....	-	-	-	-	-	-	-	-
Heat treating of metals.....	11	7	4	-	43	8	35	-
Automatic screw machine department.....	19	9	7	3	215	19	63	133
Machine shop.....	44	10	14	20	1,658	15	119	1,524
Tool and die shop.....	32	12	16	4	410	21	147	242
Plate or structural fabrication.....	2	1	1	-	(D)	(D)	(D)	-
Stamping, blanking and forming of metals.....	45	21	16	8	493	44	169	280
Painting, lacquering and enameling on metals.....	33	20	12	1	187	32	(D)	(D)
Plastics molding.....	6	4	1	1	45	(D)	(D)	(D)
Assembly of product.....	55	18	10	27	2,231	34	101	2,096
Shipping department, including packing and crating..	52	34	16	2	299	51	(D)	(D)

NOTE: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

Item	Industry			
	3571	3572	3576	3579
Total number of establishments in the industry.....	248	21	85	161
Number of establishments which reported one or more of the specified operations.....	137	15	45	73
Percent of industry production workers in these establishments.....	95-100	95-100	80-85	75-80
Number of establishments which reported "none" of the operations apply.....	15	3	1	3
Percent of industry production workers in these establishments.....	0-5	0-5	0-5	0-5
Percent of industry production workers in establishments which completed the metalworking operations inquiry.....	95-100	95-100	80-85	80-85

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.

## SERVICE INDUSTRY MACHINES AND MACHINE SHOPS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3581—Automatic Merchandising Machines
- 3582—Commercial Laundry, Dry Cleaning, and Pressing Machines
- 3585—Refrigerators; Refrigeration Machinery, Except Household; and Complete Air-Conditioning Units
- 3586—Measuring and Dispensing Pumps
- 3589—Service Industry Machines, Not Elsewhere Classified
- 3599—Miscellaneous Machinery, Except Electrical

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3581—AUTOMATIC MERCHANDISING MACHINES

This industry comprises establishments primarily engaged in manufacturing automatic merchandising units; also referred to as vending machines (excluding music, amusement, or gaming machines), and coin operated mechanisms for such machines. For a detailed list of products of industry 3581, refer to table 6A, product codes 3581002 to 3581269.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Automatic Vending Machines Industry totaled \$238 million. This amount included shipments of automatic vending machines and parts (primary products) valued at \$187 million, shipments of other products (secondary products) valued at \$44 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$7 million.

This industry's shipments of automatic vending machines represented 81 percent of its total product shipments. The industry specialization ratio in 1958 was 92 percent. Secondary products shipped by this industry in 1963 included refrigeration machinery (\$7 million).

Shipments of automatic vending machines by this industry represented 90 percent of all shipments of these products (\$207 million) by all industries. In 1958 the coverage ratio



was 92 percent. Another industry shipping automatic vending machines was industry 3585, Refrigeration Machinery, \$4 million.

The production index for the primary products of the industry increased to 189 in 1963 from the 1958 level of 140. The unit value index for 1963 was 133 compared to 112 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3582—COMMERCIAL LAUNDRY, DRY CLEANING, AND PRESSING MACHINES

This industry comprises establishments primarily engaged in manufacturing laundry and dry cleaning equipment and pressing machines for commercial and industrial use. Establishments primarily engaged in manufacturing household laundry equipment are classified in industry 3633. Although the SIC classifies coin-operated household washing machines in industry 3582, data for these machines are included in the 1963 Census of Manufactures, as in 1958, in industry 3633. For a detailed list of products of industry 3582, refer to table 6A, product codes 3582021 to 3582091.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Commercial Laundry Equipment Industry totaled \$137 million. This amount included shipments of commercial laundry, dry cleaning, and pressing machines (primary products) valued at \$116 million, shipments of other products (secondary products) valued at \$12 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$9 million.

This industry's shipments of commercial laundry equipment represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 94 percent.

Shipments of commercial laundry, dry cleaning, and pressing machines by this industry represented 89 percent of all shipments of these products (\$130 million) by all industries. In 1958 the coverage ratio was 95 percent. Another industry shipping commercial laundry equipment was industry 3633, Household Laundry Equipment.

The production index for the primary products of the industry increased to 202 in 1963 from the 1958 level of 122. The unit value index for 1963 was 84 compared to 114 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3585—REFRIGERATORS; REFRIGERATION MACHINERY, EXCEPT HOUSEHOLD; AND COMPLETE AIR-CONDITIONING UNITS

This industry comprises establishments primarily engaged in manufacturing equipment and systems utilizing the basic refrigeration cycle, including mechanical and absorption refrigerators for commercial and industrial use; refrigeration machinery; and complete air-conditioning units for domestic, commercial, and industrial use. Establishments primarily engaged in manufacturing soda fountains and beer dispensing equipment are classified in this industry, and those primarily engaged in manufacturing household refrigerators and home and farm freezers in industry 3632. For a detailed list of products of industry 3585, refer to table 6A, product codes 3585101 to 3585798.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Refrigeration Machinery Industry totaled \$1,928 million. This amount include shipments of refrigeration machinery (primary products) valued at \$1,588 million, shipments of other products (secondary products) valued at \$194 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$146 million.

The specialization and coverage ratios have not been calculated for industry 3585 as the data from which these ratios are obtained include extensive duplication. This results from the fact that products of some establishments in the industry are consumed as materials by other establishments in the same industry. This is especially true of refrigeration and air-conditioning components which may be shipped to producers of complete refrigeration and air-conditioning equipment where they are again included in both the cost of materials and the value of shipments.

Industry 3585 comprises two major establishment types. One group of establishments specializes primarily in the manufacture of compressors, condensers, and other components for air-conditioning and commercial refrigeration. Many of these establishments also produce complete air-conditioning equipment as well as subassemblies for air-conditioning and commercial refrigeration equipment. These establishments also rely on other establishments for their motors and other electrical equipment.

The other major segment of industry 3585 covers the production of commercial refrigeration equipment such as walk-in and reach-in refrigerators, display cases for meat, dairy, and other food products, low temperature freezing and dispensing equipment, florist cabinets, etc. Although significant amounts of metal are consumed in the manufacture of these products, many of these items contain substantial amounts of wood, glass, and other nonmetallic materials. Some types of commercial refrigeration equipment are shipped from the factory without compressors, condensing units or refrigeration equipment. These "remote type units" are then installed at the site with the suitable refrigeration components.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 60 percent of the total industry shipments are represented by plants specializing in heat transfer equipment; and 15 percent in commercial refrigerations.

The production index for the primary products of the industry increased to 208 in 1963 from the 1958 level of 135. The unit value index for 1963 was 86 compared to 90 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3586—MEASURING AND DISPENSING PUMPS

This industry comprises establishments primarily engaged in manufacturing measuring and dispensing pumps commonly used in service and filling stations for dispensing gasoline, oil, and grease, including grease guns. Establishments primarily engaged in manufacturing pumps, compressors, and pumping equipment for general industrial use are classified in industry 3561. For a detailed list of products of industry 3586, refer to table 6A, product codes 3586011 to 3586098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Measuring and Dispensing Pumps Industry totaled \$159 million. This amount included shipments of measuring and dispensing pumps (primary products) valued at \$103 million, shipments of other products (secondary products) valued at \$38 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$19 million.

This industry's shipments of measuring and dispensing pumps represented 73 percent of its total product shipments. The industry specialization ratio in 1958 was 75 percent.



Secondary products shipped by this industry in 1963 included pumps and compressors (\$10 million).

Shipments of measuring and dispensing pumps by this industry represented 85 percent of all shipments of these products (\$121 million) by all industries. In 1958 the coverage ratio was 89 percent. Another industry shipping measuring and dispensing pumps was industry 3561, Pumps and Compressors, \$7 million.

The production index for the primary products of the industry increased to 113 in 1963 from the 1958 level of 79. The unit value index for 1963 was 133 compared to 138 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3589—SERVICE INDUSTRY MACHINES, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing machines and equipment, not elsewhere classified, for use in service industries, such as floor sanding machines, industrial vacuum cleaners, scrubbing machines, commercial cooking and food warming equipment, and commercial dishwashing machines. Establishments primarily engaged in manufacturing household electrical appliances are classified in group 363. For a detailed list of products of industry 3589, refer to table 6A, product codes 3589111 to 3589398.

The code number for this industry in the Standard Industrial Classification manual is unchanged, but the content of the industry has been slightly changed from the classification system used in 1958. Establishments primarily engaged in producing industrial vacuum cleaners are now classified in industry 3589. Such establishments were formerly classified in industry 3584.

Value of shipments and other receipts of the Service Industry Machines, N.E.C., Industry totaled \$378 million. This amount included shipments of service industry machines, n.e.c., (primary products) valued at \$288 million, shipments of other products (secondary products) valued at \$46 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$44 million.

This industry's shipments of service industry machines, n.e.c., represented 86 percent of its total product shipments. The industry specialization ratio in 1958 was 85 percent.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 54 percent of the total industry shipments are represented by plants specializing in service industry machines and parts; and 34 percent in commercial cooking and food warming equipment.

Shipments of service industry machines, n.e.c., by this industry represented 84 percent of all shipments of these products (\$342 million) by all industries. In 1958 the coverage ratio was 81 percent.

The production index for the primary products of the industry increased to 202 in 1963 from the 1958 level of 143. The unit value index for 1963 was 116 compared to 112 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3599—MISCELLANEOUS MACHINERY, EXCEPT ELECTRICAL

This industry comprises establishments primarily engaged in manufacturing machinery and parts except electrical, not elsewhere classified, such as pistons and piston rings, carburetors, metallic packing, and amusement park equipment. This industry also

includes establishments primarily engaged in producing or repairing machine and equipment parts, not elsewhere classified, on a job or order basis for others. These establishments usually operate on a job or order basis and are equipped with machine tools and other power-driven metalworking machinery capable of manufacturing a wide range of machine and equipment parts. Machine shops classified in this industry are characterized by their method of operation rather than their product, and the fact that they may be primarily engaged in repair work does not exclude them from this classification; however, machine shops engaged exclusively in repair work are classified in repair industries.

Although generally characterized by method of operation rather than type of product, establishments primarily engaged in manufacturing the following products are classified in industry 3599: Metal bellows, bushings machined from purchased castings, carburetors, catapults, boiler-tube cleaners, valve cores, hydraulic cylinders, iron flasks, flexible metal hose and tubing, metallic packing (except asbestos-metallic), pistons and piston rings, and intake and exhaust valves for internal combustion engines. For a detailed list of products of industry 3599, refer to table 6A, product codes 3599011 to 3599098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Miscellaneous Machinery Industry totaled \$2,036 million. This amount included shipments of machine shop products (primary products) valued at \$1,440 million, shipments of other products (secondary products) valued at \$157 million, and miscellaneous receipts (mainly contract work on materials owned by others) at \$439 million.

This industry's shipments of machine shop products represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was 92 percent. Secondary products shipped by this industry in 1963 include parts and accessories for passenger cars, trucks, and busses shipped to other than motor vehicle manufactures (\$21 million), and general industrial machinery, n.e.c. (\$13 million).

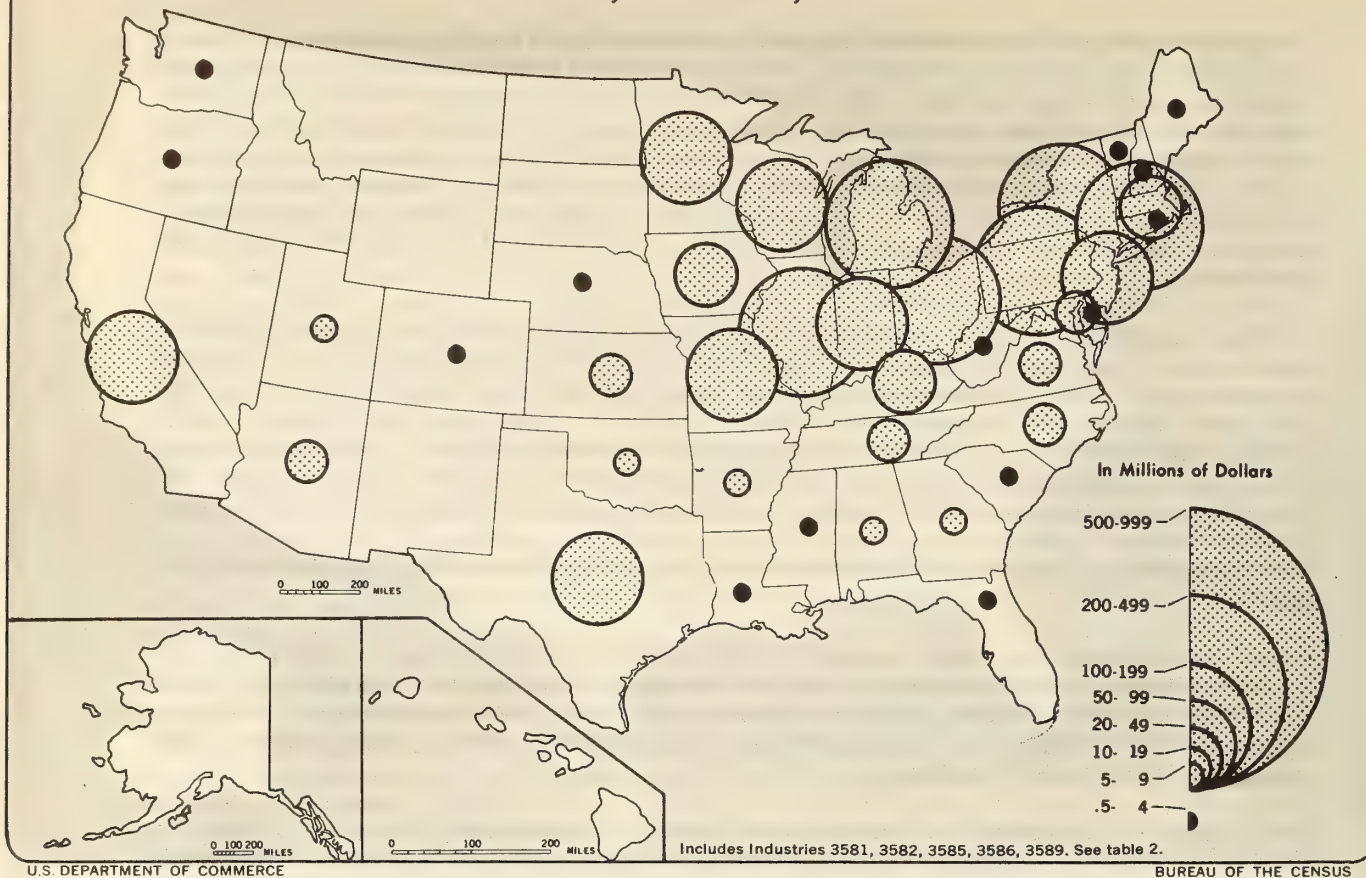
Shipments of machine shop products by this industry represented 90 percent of all shipments of these products (\$1,606 million) by all industries. In 1958 the coverage ratio was also 90 percent.

Since machining is a common operation in most of the establishments producing metal products, many of the metal products establishments classified in industries other than industry 3599 maintain machine shop departments for their own use. Data for captive machine shops appear in the metalworking operations table (table 9) for individual industries.



# SERVICE INDUSTRY MACHINES: SIC 358

## Value Added by Manufacture by State: 1963



# MISCELLANEOUS MACHINERY: SIC 359

## Value Added by Manufacture by State: 1963

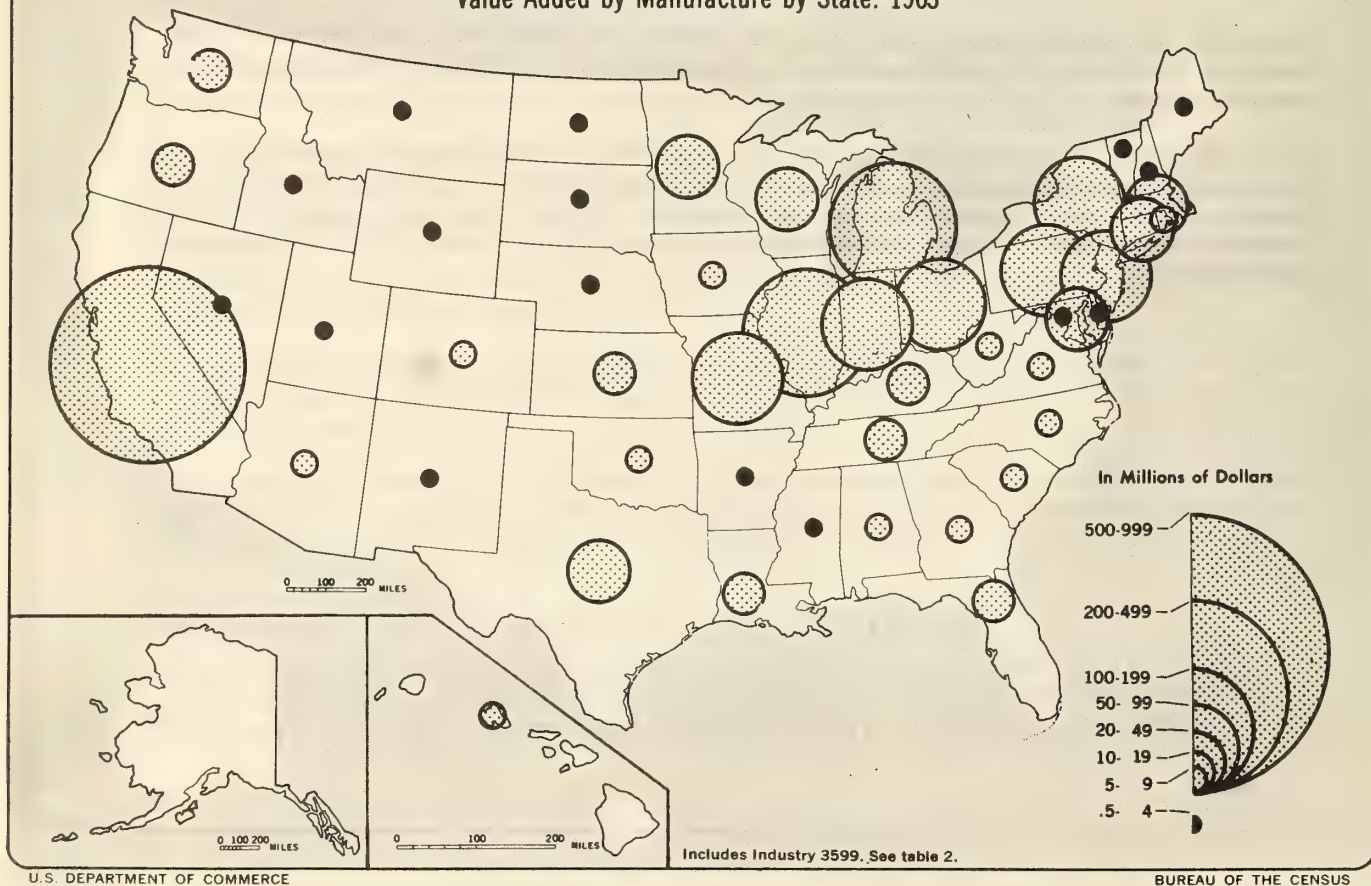


TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
INDUSTRY 3581.—AUTOMATIC VENDING MACHINES														
1963.....	148	158	68	11,672	64,791	8,442	16,790	40,427	121,365	116,908	238,000	3,479	81	90
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,378	71,524	9,482	18,285	42,362	130,772	121,373	247,542	6,364	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,134	57,893	7,709	15,329	34,043	96,507	94,286	201,326	2,681	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,990	56,834	8,102	16,412	37,000	123,584	101,753	213,581	3,542	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,588	42,073	6,284	12,726	26,286	83,493	83,416	165,197	2,452	(NA)	(NA)
1958.....	119	121	53	7,894	37,049	5,557	10,846	21,945	64,694	76,600	141,635	2,798	92	92
1954 <sup>2 3</sup> .....	(NA)	76	(NA)	5,233	21,570	3,925	7,821	13,880	37,248	46,702	83,957	(NA)	(NA)	(NA)
INDUSTRY 3582.—COMMERCIAL LAUNDRY EQUIPMENT														
1963.....	107	115	58	6,542	37,929	4,667	9,605	23,462	70,771	64,925	136,757	2,487	91	89
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,329	36,128	4,327	9,192	21,567	64,616	64,205	124,698	1,266	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,879	32,613	4,148	8,433	20,408	61,548	55,931	119,881	2,705	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,937	36,898	4,741	9,304	22,111	74,697	63,315	137,342	1,308	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,839	36,416	4,752	9,652	22,231	71,034	66,428	137,981	1,504	(NA)	(NA)
1958.....	113	119	47	6,560	33,047	4,544	9,218	20,183	65,580	54,058	119,499	2,024	94	95
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,017	33,948	5,002	10,208	21,020	71,578	48,240	117,456	2,675	84	89
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,013	33,113	5,056	10,476	20,813	66,661	47,044	107,725	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,940	31,110	4,959	10,277	19,887	62,940	42,747	99,523	(S)	(NA)	(NA)
1954.....	101	104	46	6,543	28,630	4,659	9,509	18,243	56,644	46,189	103,747	1,062	83	93
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,291	27,807	4,667	(NA)	18,445	51,961	38,158	90,119	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,813	28,905	5,094	(NA)	20,606	54,964	38,877	94,056	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,682	26,574	4,981	(NA)	18,771	50,357	41,495	92,067	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,485	22,613	4,830	(NA)	15,227	42,730	33,776	76,581	(NA)	(NA)	(NA)
1947.....	119	127	67	9,093	27,435	6,888	14,790	19,015	54,347	40,626	94,361	(NA)	94	94
1939.....	(NA)	88	(NA)	(NA)	(NA)	2,783	(NA)	3,588	13,358	9,026	22,384	(NA)	(NA)	(NA)
1937 <sup>3</sup> .....	(NA)	62	(NA)	(NA)	(NA)	3,012	(NA)	4,274	13,036	10,874	23,910	(NA)	(NA)	(NA)
INDUSTRY 3585.—REFRIGERATION MACHINERY														
1963.....	655	698	347	72,330	432,583	50,676	101,231	268,304	892,686	<sup>4</sup> 1,059,887	<sup>4</sup> 1,928,001	33,471	( <sup>4</sup> )	( <sup>4</sup> )
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	62,533	366,967	44,730	90,249	225,401	676,544	<sup>4</sup> 940,285	<sup>4</sup> 1,610,516	32,433	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	62,795	349,836	44,182	86,583	212,601	608,116	<sup>4</sup> 894,931	<sup>4</sup> 1,501,918	37,880	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	65,846	361,180	45,973	90,981	217,590	674,304	<sup>4</sup> 935,403	<sup>4</sup> 1,549,413	31,801	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	69,350	377,760	47,898	95,522	224,181	733,391	<sup>4</sup> 925,565	<sup>4</sup> 1,641,520	26,110	(NA)	(NA)
1958 <sup>5</sup> .....	600	625	278	67,715	342,169	46,210	90,352	204,934	598,032	<sup>4</sup> 806,411	<sup>4</sup> 1,441,082	23,166	( <sup>4</sup> )	( <sup>4</sup> )
INDUSTRY 3586.—MEASURING AND DISPENSING PUMPS														
1963.....	42	43	27	6,768	41,732	4,499	8,913	23,155	91,713	71,213	159,487	2,604	73	85
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,316	38,326	3,969	7,823	19,857	81,728	66,656	143,747	2,691	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,638	33,643	3,569	6,938	17,241	72,046	54,607	125,899	2,416	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,025	34,928	3,909	7,667	18,600	71,637	54,907	124,345	2,975	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,569	38,437	4,303	8,503	20,390	79,243	65,989	141,205	1,611	(NA)	(NA)
1958.....	31	32	20	6,201	32,852	3,747	7,102	16,680	64,689	53,812	119,045	2,238	75	89
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,888	32,412	3,871	7,625	17,425	62,915	42,800	104,268	1,388	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,160	32,791	4,238	8,652	19,055	66,300	47,674	112,972	2,358	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,880	33,284	4,816	9,672	19,874	65,888	49,237	109,480	3,651	(NA)	(NA)
1954.....	31	31	19	7,438	34,201	5,199	10,454	20,899	59,722	50,784	111,628	1,750	69	91
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,860	29,907	4,914	(NA)	18,120	48,252	39,353	87,605	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,569	48,221	7,470	(NA)	30,472	86,097	61,518	147,611	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,804	45,464	7,702	(NA)	28,145	76,673	55,334	132,003	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,476	36,471	6,721	(NA)	21,681	71,044	50,753	121,793	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,534	31,022	5,740	(NA)	17,610	57,901	35,197	93,094	(NA)	(NA)	(NA)
1947.....	51	52	29	12,083	36,972	8,884	17,090	24,174	66,223	60,439	125,052	(NA)	76	98
1939.....	(NA)	38	(NA)	7,395	11,953	5,054	(NA)	6,751	25,267	19,019	44,286	(NA)	(NA)	(NA)
1937 <sup>3</sup> .....	(NA)	35	(NA)	(NA)	(NA)	6,652	(NA)	8,862	30,363	24,312	54,675	(NA)	(NA)	(NA)
INDUSTRY 3589.—SERVICE INDUSTRY MACHINES, N.E.C.														
1963.....	496	506	142	15,257	96,834	9,524	19,423	51,279	192,379	185,121	378,300	5,278	86	84
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,326	96,629	10,216	22,473	56,084	205,036	176,639	373,689	(6,211)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,540	81,962	8,797	19,729	46,368	181,538	149,243	332,084	3,212	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,693	75,938	8,584	18,034	44,710	151,891	139,301	294,766	3,749	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,765	66,841	8,491	16,393	39,061	138,159	128,401	260,840	(5,771)	(NA)	(NA)
1958 <sup>5</sup> .....	(NA)	359	125	11,689	63,719	7,746	15,086	35,864	125,156	121,952	245,227	3,217	85	81

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
	INDUSTRY 3599.—MISCELLANEOUS MACHINERY													
1963.....	12,032	12,090	1,402	135,820	793,629	108,445	224,320	593,147	1,366,327	673,823	2,036,299	71,729	90	90
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	139,789	772,437	114,352	224,847	567,581	1,352,037	724,186	2,055,866	(64,728)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	129,496	698,583	104,773	208,780	509,228	1,189,398	636,589	1,829,957	61,892	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	126,494	672,704	102,375	201,076	489,605	1,150,844	614,433	1,765,105	58,296	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	130,690	676,118	106,835	207,792	498,018	1,155,562	665,077	1,812,162	58,347	(NA)	(NA)
1958 (new SIC)	10,098	10,171	1,090	115,659	575,407	91,626	179,730	420,751	959,939	520,674	1,481,295	93,131	92	90
1958 (old SIC)	(NA)	10,401	1,162	121,332	599,811	96,261	189,117	438,627	1,007,544	561,937	1,569,915	94,853	(NA)	(NA)
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	126,374	585,606	101,302	206,983	430,972	975,948	511,169	1,468,476	(S)	87	87
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	124,739	562,800	101,144	208,899	420,528	968,074	501,202	1,429,202	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	112,697	490,625	91,161	188,646	365,457	824,136	461,524	1,256,412	(S)	(NA)	(NA)
1954.....	6,795	6,832	977	103,727	442,177	83,782	171,400	326,031	737,315	404,180	1,150,308	39,588	88	86
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	118,521	503,204	98,171	203,295	398,207	845,645	413,657	1,259,302	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	88,667	364,787	75,176	159,632	285,169	647,760	309,827	957,587	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	74,743	276,364	63,397	132,619	217,800	478,228	261,078	739,306	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	51,696	170,035	42,519	84,575	124,165	304,417	(NA)	(NA)	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	(S)	(S)	(S)	(NA)	(NA)	(S)	(NA)	(NA)	(NA)	(NA)	(NA)
1947.....	(NA)	3,113	513	62,400	173,729	52,313	(NA)	135,545	289,806	149,964	439,877	(NA)	92	77
1939 <sup>3</sup> .....	(NA)	1,325	(NA)	(NA)	(NA)	24,333	(NA)	32,076	82,106	48,566	130,672	(NA)	(NA)	(NA)

Note: See appendix A for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Represents establishments specializing in producing automatic vending machines but excludes establishments producing coin-operated mechanisms for such machines. The former establishments accounted for an estimated 80-90 percent of the total value of shipments of all establishments primarily engaged in producing automatic vending machines and coin-operated mechanisms for such machines.

<sup>3</sup>No comparable figures are available for earlier years.

<sup>4</sup>The value of shipments and cost of materials for this industry includes extensive duplication arising from shipments between establishments in the same industry classification. Accordingly, the specialization ratios and coverage ratios are not shown. For further explanation see introductory text.

<sup>5</sup>A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification. Accordingly, the data for 1958-1963 are not comparable with those for earlier years.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
	INDUSTRY 3581.—AUTOMATIC VENDING MACHINES												
Total.....	158	68	11,672	64,791	8,442	16,790	40,427	121,365	116,908	238,000	3,479	7,894	64,694
Northeast.....	42	21	3,492	19,827	2,601	5,149	12,665	38,012	30,634	67,736	1,195	( <sup>2</sup> )	( <sup>2</sup> )
New York.....	18	9	657	3,086	535	1,056	2,060	4,897	4,822	9,616	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Pennsylvania.....	12	5	445	2,312	260	493	934	5,194	3,681	8,844	228	307	2,666
East North Central.....	46	22	3,146	18,260	2,371	4,879	12,552	33,775	35,979	71,237	1,146	( <sup>2</sup> )	( <sup>2</sup> )
Illinois.....	23	12	1,665	8,515	1,315	2,721	6,152	14,887	15,207	29,869	642	1,230	8,497
West North Central.....	19	9	2,924	17,180	1,860	3,582	8,839	30,021	30,556	60,451	714	( <sup>2</sup> )	( <sup>2</sup> )
Minnesota.....	6	2	199	1,073	159	346	810	1,612	1,985	3,608	22	275	1,345
Missouri.....	5	4	2,442	14,752	1,455	2,709	6,956	26,202	26,797	52,791	(D)	1,791	15,343
South.....	27	8	1,333	5,755	1,003	1,943	3,688	10,927	12,121	22,921	233	893	7,643
Texas.....	6	2	129	665	86	154	377	635	2,224	2,810	19	( <sup>2</sup> )	( <sup>2</sup> )
Mountain.....	6	-	15	76	11	21	58	134	160	280	10	792	9,074
Colorado.....	3	-	4	18	2	4	13	19	20	39	2		
Pacific.....	18	8	762	3,693	596	1,216	2,625	8,496	7,458	15,375	181	( <sup>2</sup> )	( <sup>2</sup> )
California.....	18	8	762	3,693	596	1,216	2,625	8,496	7,458	15,375	181	( <sup>2</sup> )	( <sup>2</sup> )
	INDUSTRY 3582.—COMMERCIAL LAUNDRY EQUIPMENT												
Total.....	115	58	6,542	37,929	4,667	9,605	23,462	70,771	64,925	136,757	2,487	6,560	65,580
New England.....	12	6	473	2,327	279	578	1,161	3,730	3,167	6,905	45	443	3,747
Massachusetts.....	6	3	202	861	134	265	497	1,622	1,874	3,530	32	( <sup>2</sup> )	( <sup>2</sup> )
Middle Atlantic....	25	14	1,271	7,191	988	2,011	4,938	16,022	15,088	30,841	283	2,105	20,040
New York.....	15	9	1,010	5,653	784	1,605	3,966	12,704	11,268	23,727	256	1,730	17,287
East North Central.....	33	18	2,431	15,482	1,693	3,570	9,258	26,807	23,549	50,940	1,636	2,480	25,494
Ohio.....	4	4	702	3,669	566	1,161	2,855	6,020	4,943	11,817	228	724	6,792
West North Central.....	9	5	860	4,840	614	1,159	3,052	5,130	8,279	14,546	152	440	2,837
South Atlantic.....	4	1	25	144	19	38	97	176	46	220	326	808	10,673
East South Central.....	6	3	568	3,099	449	930	2,145	7,172	4,766	11,755			
West South Central.....	13	8	449	2,325	321	667	1,278	5,371	5,923	11,197	(D)	276	3,456
Texas.....	7	4	254	1,261	173	354	674	3,105	3,295	6,289			
West.....	13	3	465	2,521	304	652	1,533	6,363	4,107	10,353	45	284	2,789
	INDUSTRY 3585.—REFRIGERATION MACHINERY												
Total.....	698	347	72,330	432,583	50,676	101,231	268,304	892,686	1,059,887	1,928,001	33,471	67,715	598,032
New England.....	30	15	1,652	9,411	1,137	2,334	5,839	17,249	19,579	35,761	1,398	4,220	44,409
Connecticut.....	10	5	755	4,592	481	1,026	2,817	7,632	9,939	17,079	502	( <sup>2</sup> )	( <sup>2</sup> )
Middle Atlantic....	165	80	20,495	128,773	13,301	26,448	74,257	272,594	281,608	545,625	12,626	19,303	176,733
New York.....	74	35	8,921	59,739	5,638	11,288	34,430	137,324	162,035	299,961	4,344	9,757	109,358
New Jersey.....	36	20	3,050	18,685	1,941	3,835	9,915	32,904	38,963	72,209	1,874	3,799	24,598
Pennsylvania.....	55	25	8,524	50,349	5,722	11,325	29,912	102,366	80,610	173,455	6,408	5,747	42,777
East North Central.....	158	88	24,797	151,996	17,813	35,380	98,014	282,924	402,320	680,849	8,790	22,831	203,563
Ohio.....	36	21	7,461	45,770	5,459	11,045	30,014	85,584	129,177	215,219	2,617	5,757	42,004
Indiana.....	14	9	3,954	21,766	2,970	5,715	15,299	36,462	48,394	82,007	1,075	2,377	22,812
Illinois.....	50	27	2,108	13,295	1,568	3,332	8,808	24,255	25,550	49,903	688	1,998	15,735
Michigan.....	38	21	6,873	44,120	5,273	10,341	30,326	84,826	152,932	236,867	2,681	8,375	79,540
Wisconsin.....	20	10	4,401	27,045	2,543	4,947	13,567	51,797	46,267	96,853	1,729	4,324	43,472
West North Central.....	55	32	7,312	43,700	4,959	10,154	26,211	110,548	91,688	199,976	2,735	8,268	66,395
Minnesota.....	18	10	2,717	17,309	1,916	4,109	10,117	40,729	39,760	78,934	1,571	2,744	24,971
Missouri.....	23	15	3,478	19,495	2,182	4,307	11,393	31,245	33,370	64,167	613	3,783	33,016
South Atlantic.....	55	27	3,484	18,868	2,573	5,291	12,112	41,843	48,125	89,039	1,635	2,473	18,667
North Carolina.....	8	6	922	4,768	716	1,474	3,625	10,589	8,390	19,070	122	( <sup>2</sup> )	( <sup>2</sup> )
Georgia.....	9	4	772	4,321	543	1,159	2,349	6,934	8,383	15,174	515	( <sup>2</sup> )	( <sup>2</sup> )
Florida.....	23	6	325	1,639	229	459	983	3,066	3,822	6,813	158	202	1,375
East South Central.....	24	13	3,123	17,442	2,480	5,069	12,241	48,654	58,135	104,121	2,266	1,871	16,042
Tennessee.....	12	4	537	2,341	387	796	1,633	8,003	10,180	18,521	(D)	( <sup>2</sup> )	( <sup>2</sup> )

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963										1958		
	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3585.—REFRIGERATION MACHINERY—Continued													
West South Central.	81	43	6,076	29,716	4,638	9,299	18,873	65,698	92,940	152,129	2,593	4,120	35,683
Arkansas.....	6	3	369	1,798	283	575	1,172	4,269	4,995	9,377	136	( <sup>2</sup> )	( <sup>2</sup> )
Oklahoma.....	13	7	806	3,564	643	1,280	2,444	6,222	10,150	16,309	546	180	1,542
Texas.....	58	33	4,879	24,238	3,694	7,402	15,167	55,104	77,360	125,880	1,909	3,844	33,675
Mountain.....	17	8	1,579	8,802	1,174	2,131	6,215	18,605	18,504	36,760	559	1,065	7,313
Arizona.....	7	4	1,290	7,368	964	1,715	5,219	14,049	14,618	28,609	460	( <sup>2</sup> )	( <sup>2</sup> )
Pacific.....	113	41	3,812	23,799	2,601	5,125	14,542	34,571	46,988	83,741	869	3,564	29,227
Washington.....	7	4	292	1,869	163	290	985	2,201	2,076	4,485	85	( <sup>2</sup> )	( <sup>2</sup> )
California.....	92	35	3,349	20,869	2,322	4,603	12,850	30,635	42,340	75,005	748	3,245	26,211
INDUSTRY 3586.—MEASURING AND DISPENSING PUMPS													
Total.....	43	27	6,768	41,732	4,499	8,913	23,155	91,713	71,213	159,487	2,604	6,201	64,689
Northeast.....	13	8	2,109	13,292	1,250	2,303	6,711	24,561	18,491	40,935	710	( <sup>2</sup> )	( <sup>2</sup> )
New York.....	5	3	190	1,116	118	234	638	2,168	548	2,727	(D)	( <sup>2</sup> )	( <sup>2</sup> )
East North Central.	13	9	2,385	15,223	1,607	3,209	8,435	33,495	26,620	59,874	1,263	2,711	32,327
West North Central.	6	5	1,353	7,542	1,068	2,209	5,257	22,707	11,608	33,713	396	1,451	13,295
South.....	6	3	854	5,308	534	1,108	2,589	10,052	14,069	23,697	222	( <sup>2</sup> )	( <sup>2</sup> )
West.....	5	2	67	367	40	84	163	898	425	1,268	13	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3589.—SERVICE INDUSTRY MACHINES, N.E.C.													
Total.....	506	142	15,257	96,834	9,524	19,423	51,279	192,379	185,121	378,300	5,278	( <sup>3</sup> )	( <sup>3</sup> )
New England.....	24	12	1,257	8,444	784	1,585	3,966	16,994	13,222	30,213	270	532	5,335
Massachusetts....	13	8	853	5,792	569	1,174	3,104	11,243	10,213	21,204	181	353	3,461
Middle Atlantic....	122	33	3,189	19,674	2,139	4,360	11,851	37,353	31,443	68,577	713	2,733	22,820
New York.....	54	9	824	5,315	591	1,246	3,380	10,651	8,030	18,392	232	905	7,824
New Jersey.....	34	14	1,446	9,033	991	2,020	5,635	15,323	13,300	28,474	207	1,136	10,018
Pennsylvania.....	34	10	919	5,326	557	1,094	2,836	11,379	10,113	21,711	274	692	4,978
East North Central.	160	57	6,379	41,051	3,726	7,639	20,281	83,787	93,476	178,545	2,918	4,792	60,404
Ohio.....	31	15	1,474	9,310	1,042	2,093	5,879	23,316	24,582	49,423	848	994	12,554
Indiana.....	15	3	301	1,790	230	465	1,204	2,577	2,545	5,003	(D)	255	2,628
Illinois.....	79	34	3,843	24,604	2,035	4,217	11,156	46,714	53,619	100,807	1,476	2,973	35,790
Michigan.....	14	3	477	3,925	216	439	1,145	7,879	7,619	14,929	342	304	6,895
Wisconsin.....	21	2	284	1,422	203	425	897	3,301	5,111	8,383	(D)	266	2,537
West North Central.	38	15	1,895	11,776	1,138	2,268	5,542	24,279	19,138	42,754	605	1,049	11,081
Minnesota.....	18	5	869	6,194	408	845	2,190	11,594	10,664	22,035	303	606	7,230
Missouri.....	12	7	671	3,556	515	1,052	2,384	7,027	4,425	11,177	214	( <sup>2</sup> )	( <sup>2</sup> )
South.....	68	8	1,042	5,767	710	1,484	3,425	10,818	9,400	20,319	192	( <sup>2</sup> )	( <sup>2</sup> )
Florida.....	16	2	132	757	92	195	442	948	988	2,035	41	2,151	21,260
West.....	94	17	1,495	10,122	1,027	2,087	6,214	19,148	18,442	37,892	580	( <sup>2</sup> )	( <sup>2</sup> )
California.....	77	15	1,347	9,135	937	1,906	5,644	17,407	16,522	34,282	548	1,394	14,313
INDUSTRY 3599.—MISCELLANEOUS MACHINERY													
Total.....	12,090	1,402	135,820	793,629	108,445	224,320	593,147	1,366,327	673,823	2,036,299	71,729	115,659	959,939
New England.....	1,026	143	11,878	69,482	9,434	19,961	50,651	107,247	47,441	154,604	5,920	9,365	68,458
Maine.....	31	4	290	1,355	214	420	884	1,683	1,066	2,751	89	332	2,197
New Hampshire....	52	5	468	2,397	387	797	1,820	3,919	1,331	5,243	186	221	1,427
Vermont.....	19	1	129	514	106	235	411	1,330	385	1,696	38	106	576
Massachusetts....	464	75	5,349	30,878	4,227	8,742	22,456	47,092	20,622	67,580	3,291	( <sup>2</sup> )	( <sup>2</sup> )
Rhode Island.....	84	6	830	4,221	664	1,295	3,132	6,767	2,551	9,312	298	( <sup>2</sup> )	( <sup>2</sup> )
Connecticut.....	376	52	4,812	30,117	3,836	8,472	21,948	46,456	21,486	68,022	2,018	4,313	33,450
Middle Atlantic....	2,278	273	23,008	131,511	18,706	38,717	99,612	217,233	100,541	315,780	11,693	21,867	165,380
New York.....	969	121	9,290	53,993	7,579	15,829	40,664	90,584	39,678	129,123	4,676	9,458	72,423
New Jersey.....	648	52	5,635	32,806	4,547	9,467	24,979	53,737	24,204	77,446	3,252	5,429	39,655
Pennsylvania.....	661	100	8,083	44,712	6,580	13,421	33,969	72,912	36,659	109,211	3,765	6,980	53,302
East North Central.	2,989	408	43,950	261,223	34,312	71,086	188,462	482,705	239,843	719,996	24,192	( <sup>2</sup> )	( <sup>2</sup> )
Ohio.....	846	108	10,019	55,529	8,241	17,003	42,384	99,345	55,192	153,254	4,396	9,339	71,577
Illinois.....	715	108	10,872	65,552	8,080	17,128	43,840	114,860	57,877	171,608	6,184	( <sup>2</sup> )	( <sup>2</sup> )

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
	INDUSTRY 3599.—MISCELLANEOUS MACHINERY—Continued												
West North Central.	722	101	12,192	71,518	9,727	20,318	53,618	117,431	62,923	181,304	4,916	( <sup>2</sup> )	( <sup>2</sup> )
Minnesota.....	214	47	3,075	18,319	2,513	5,327	13,942	29,273	13,551	42,452	1,719	2,150	17,526
Iowa.....	109	6	701	3,248	597	1,263	2,578	5,834	2,254	8,093	407	510	3,899
Missouri.....	213	32	6,176	37,697	4,712	9,638	27,450	59,047	34,043	94,433	1,736	4,571	38,605
Nebraska.....	51	2	201	1,014	174	360	858	1,793	841	2,630	146	203	1,558
Kansas.....	106	13	1,732	9,489	1,470	3,154	7,388	18,567	10,224	28,806	783	( <sup>2</sup> )	( <sup>2</sup> )
South Atlantic.....	804	90	8,515	43,911	6,908	14,476	33,816	71,760	36,533	107,853	4,432	6,387	45,507
Delaware.....	21	2	195	1,019	159	316	835	1,798	930	2,733	386	123	788
Maryland.....	93	18	2,308	14,151	1,798	3,861	10,308	23,814	7,990	31,708	1,585	1,439	10,121
District of Columbia.....	10	2	128	764	102	200	585	1,237	495	1,735	71	( <sup>2</sup> )	( <sup>2</sup> )
Virginia.....	90	11	825	3,791	685	1,399	2,952	6,307	3,855	10,138	382	576	3,638
West Virginia.....	74	10	660	3,511	538	1,056	2,691	5,805	3,693	9,471	263	667	4,830
North Carolina...	148	17	1,144	5,222	961	1,969	4,114	8,477	5,313	13,755	359	1,050	7,181
South Carolina...	46	4	929	4,572	742	1,700	3,556	5,890	2,945	8,832	231	490	3,110
Georgia.....	121	5	713	3,376	605	1,249	2,804	5,819	4,040	9,636	388	( <sup>2</sup> )	( <sup>2</sup> )
Florida.....	201	21	1,613	7,505	1,318	2,726	5,971	12,613	7,272	19,845	767	1,266	9,984
East South Central.	349	33	4,447	21,279	3,763	7,412	16,825	41,757	25,963	67,625	2,605	4,082	34,960
Kentucky.....	76	8	1,767	8,120	1,527	2,964	6,586	18,263	11,648	30,012	786	1,643	14,288
Tennessee.....	120	14	1,436	6,580	1,221	2,365	5,238	11,394	6,841	18,238	1,208	1,425	12,202
Alabama.....	103	5	736	3,751	605	1,211	2,937	7,428	4,311	11,543	360	643	5,161
Mississippi.....	50	6	508	2,828	410	872	2,064	4,672	3,163	7,832	251	371	3,309
West South Central.	970	79	6,989	36,394	5,681	11,658	28,694	62,075	33,780	95,885	3,804	5,979	49,109
Arkansas.....	61	5	366	1,715	306	658	1,378	2,891	1,721	4,630	196	311	2,429
Louisiana.....	119	14	1,124	6,211	867	1,817	4,676	10,096	5,130	15,196	543	977	7,372
Oklahoma.....	168	10	1,118	5,517	908	1,800	4,335	9,142	4,365	13,513	699	1,112	8,634
Texas.....	622	50	4,381	22,951	3,600	7,383	18,305	39,946	22,564	62,546	2,366	3,579	30,674
Mountain.....	336	34	3,236	17,539	2,739	5,543	14,333	28,189	13,796	42,213	1,479	2,394	21,025
Idaho.....	25	1	102	531	86	177	413	925	874	1,785	97	( <sup>2</sup> )	( <sup>2</sup> )
Colorado.....	86	11	1,195	5,915	1,034	1,976	5,035	9,974	5,727	15,762	440	1,081	11,168
New Mexico.....	54	4	383	2,371	318	703	1,838	4,043	1,989	6,130	204	309	2,332
Utah.....	37	4	362	1,941	313	634	1,662	2,943	1,015	4,006	108	197	1,495
Pacific.....	2,616	241	21,605	140,772	17,175	35,149	107,136	237,930	113,003	351,039	12,688	18,115	175,757
Washington.....	168	14	1,508	9,279	1,208	2,362	7,271	14,739	10,893	25,727	666	1,334	14,423
Oregon.....	139	11	1,207	7,378	965	1,839	5,756	13,776	6,836	20,166	676	886	8,321
California.....	2,286	215	18,769	123,422	14,905	30,746	93,568	208,273	94,673	303,378	11,244	15,895	153,013

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3581, Automatic Vending Machines: New England—Massachusetts, 4 (1,000-2,499); Rhode Island, 1 (20-99); Connecticut, 1 (250-499); Middle Atlantic—New Jersey, 6 (697); East North Central—Ohio, 7 (157); Indiana, 6 (300); Michigan, 6 (547); Wisconsin, 4 (477); West North Central—Iowa, 4 (133); Nebraska, 1 (1-19); Kansas, 3 (100-249); South Atlantic—Maryland, 4 (250-499); District of Columbia, 1 (1-19); West Virginia, 1 (100-249); North Carolina, 1 (1-19); Georgia, 3 (20-99); Florida, 4 (20-99); East South Central—Tennessee, 3 (448); Alabama, 1 (1-19); West South Central—Arkansas, 1 (20-99); Oklahoma, 2 (1-19); Mountain—Arizona, 2 (1-19); Utah, 1 (1-19).

SIC 3582, Commercial Laundry Equipment: New England—Maine, 1 (100-249); Massachusetts, 1 (1-19); Connecticut, 4 (20-99); Middle Atlantic—New Jersey, 5 (100-249); Pennsylvania, 5 (20-99); East North Central—Indiana, 5 (20-99); Illinois, 17 (1,000-2,499); Michigan, 5 (124); Wisconsin, 2 (100-249); West North Central—Minnesota, 4 (612); Missouri, 3 (100-249); Nebraska, 1 (1-19); Kansas, 1 (100-249); South Atlantic—Maryland, 1 (1-19); Virginia, 1 (1-19); Georgia, 1 (20-99); Florida, 1 (1-19); East South Central—Kentucky, 2 (250-499); Tennessee, 2 (100-249); Alabama, 2 (1-19); West South Central—Arkansas, 2 (20-99); Louisiana, 1 (100-249); Oklahoma, 3 (20-99); Mountain—Colorado, 1 (1-19); Utah, 1 (250-499); Pacific—Washington, 1 (20-99); California, 10 (20-99).

SIC 3585, Refrigeration Machinery: New England—Massachusetts, 15 (764); Rhode Island, 5 (133); West North Central—Iowa, 6 (761); Nebraska, 2 (1-19); Kansas, 6 (250-499); South Atlantic—Delaware, 1 (100-249); Maryland, 5 (270); Virginia, 4 (966); West Virginia, 2 (20-99); South Carolina, 3 (20-99); East South Central—Kentucky, 4 (1,376); Alabama, 5 (717); Mississippi, 3 (493); West South Central—Louisiana, 4 (20-99); Mountain—Idaho, 1 (20-99); Colorado, 4 (20-99); New Mexico, 3 (20-99); Utah, 1 (100-249); Nevada, 1 (20-99); Pacific—Oregon, 13 (100-249); Hawaii, 1 (1-19).

SIC 3586, Measuring and Dispensing Pumps: New England—Vermont, 1 (100-249); Massachusetts, 3 (1,000-2,499); Middle Atlantic—New Jersey, 1 (1-19); Pennsylvania, 3 (500-999); East North Central—Ohio, 4 (227); Indiana, 3 (500-999); Illinois, 2 (500-999); Michigan, 3 (381); Wisconsin, 1 (20-99); West North Central—Minnesota, 3 (516); Iowa, 1 (100-249); Missouri, 1 (500-999); Nebraska, 1 (1-19); South Atlantic—Maryland, 1 (250-499); North Carolina, 1 (1-19); Florida, 1 (1-19); East South Central—Tennessee, 1 (250-499); West South Central—Oklahoma, 1 (1-19); Texas, 1 (100-249); Mountain—Colorado, 1 (1-19); Pacific—California, 4 (20-99).

SIC 3589, Service Industry Machines, N.E.C.: New England—New Hampshire, 2 (100-249); Vermont, 1 (20-99); Rhode Island, 2 (1-19); Connecticut, 6 (20-99); West North Central—Iowa, 2 (20-99); Nebraska, 3 (20-99); Kansas, 3 (238); South Atlantic—Maryland, 3 (255); Virginia, 2 (1-19); West Virginia, 1 (1-19); North Carolina, 6 (100-249); South Carolina, 1 (1-19); Georgia, 3 (1-19); East South Central—Kentucky, 2 (100-249); Tennessee, 1 (1-19); Alabama, 2 (1-19); West South Central—Louisiana, 8 (100-249); Oklahoma, 5 (1-19); Texas, 18 (100-249); Mountain—Colorado, 7 (20-99); New Mexico, 1 (1-19); Arizona, 1 (1-19); Utah, 2 (1-19); Pacific—Washington, 3 (20-99); Oregon, 2 (20-99); Hawaii, 1 (1-19).

SIC 3599, Miscellaneous Machinery: East North Central—Indiana, 279 (5,872); Michigan, 834 (13,896); Wisconsin, 315 (3,291); West North Central—North Dakota, 18 (20-99); South Dakota, 11 (209); Mountain—Montana, 24 (20-99); Wyoming, 16 (20-99); Arizona, 83 (1,023); Nevada, 11 (20-99); Pacific—Alaska, 8 (20-99); Hawaii, 15 (20-99).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

<sup>3</sup>Data for 1958 exclude those establishments primarily engaged in producing industrial vacuum cleaners. In 1958 there were 18 such establishments with 432 employees and a value added (adjusted) of \$4,256 thousand.



TABLE 3. Detailed Statistics: 1963

Item	Automatic vending machines (SIC 3581)	Commercial laundry equipment (SIC 3582)	Refrigeration machinery (SIC 3585)	Measuring and dispensing pumps (SIC 3586)	Service industry machines, n.e.c. (SIC 3589)	Miscel- laneous machinery (SIC 3599)
Primary product specialization ratio <sup>1</sup> .....	.81	.91	( <sup>3</sup> )	.73	.86	.90
Coverage ratio <sup>2</sup> .....	.90	.89	( <sup>3</sup> )	.85	.84	.90
Establishments, total.....number..	158	115	698	43	506	12,090
With 1 to 19 employees.....do....	90	57	351	16	364	10,688
With 20 to 99 employees.....do....	44	40	211	11	104	1,267
With 100 employees or more.....do....	24	18	136	16	38	135
Proprietors and working partners.....do....	44	39	186	4	170	8,714
All employees (average for the year).....do....	11,672	6,542	72,330	6,768	15,257	135,820
Payroll (all employees), total for year.....\$1,000..	64,791	37,929	432,583	41,732	96,834	793,629
Production workers:						
Average for the year.....number..	8,442	4,667	450,676	4,499	9,524	108,445
March.....do....	8,410	4,771	51,139	4,323	9,307	107,408
May.....do....	8,783	4,707	53,170	4,536	9,537	108,443
August.....do....	8,337	4,561	48,987	4,696	9,639	109,074
November.....do....	8,249	4,629	49,422	4,435	9,631	109,450
Man-hours.....1,000..	16,790	9,605	101,231	8,913	19,423	224,320
January-March.....do....	4,169	2,445	25,146	2,158	4,722	55,182
April-June.....do....	4,361	2,405	27,325	2,396	4,927	56,267
July-September.....do....	4,088	2,328	23,544	2,223	4,811	55,292
October-December.....do....	4,172	2,427	25,216	2,143	4,963	57,579
Wages.....\$1,000..	40,427	23,462	268,304	23,155	51,279	593,147
Cost of materials, etc., total.....do....	116,908	64,925	1,059,887	71,213	185,121	673,823
Materials, parts, containers, and supplies consumed.....do....	108,790	57,531	958,092	59,780	150,797	528,661
Cost of resales.....do....	2,914	4,737	70,258	9,440	26,419	43,901
Fuels consumed.....do....	948	378	4,905	374	710	7,208
Electric energy:						
Purchased:						
Quantity.....million kw.-hrs..	73	26	616	35	144	881
Cost.....\$1,000..	1,160	541	7,940	601	1,102	15,046
Generated less sold.....million kw.-hrs..	(D)	(D)	(D)	-	-	3
Contract work.....\$1,000..	3,096	1,738	18,692	1,018	6,093	79,007
Value of shipments (including resales), total.....do....	238,000	136,757	1,928,001	159,487	378,300	2,036,299
Value of resales.....do....	4,032	6,493	90,945	14,347	33,799	57,109
Value added by manufacture, adjusted.....do....	121,365	70,771	892,686	91,713	192,379	1,366,327
Manufacturers' inventories:						
Beginning of year, total.....do....	54,036	33,017	387,771	36,307	68,646	230,974
Finished products.....do....	16,792	9,840	146,916	11,313	20,014	72,642
Work-in-process.....do....	17,135	7,151	115,134	15,521	25,282	91,905
Materials, supplies, fuel, etc.....do....	20,109	16,026	125,721	9,473	23,350	66,427
End of year, total.....do....	53,968	32,697	417,090	37,212	68,744	233,457
Finished products.....do....	18,678	9,230	154,889	11,568	18,869	74,205
Work-in-process.....do....	15,522	6,700	132,258	18,705	25,627	94,193
Materials, supplies, fuel, etc.....do....	19,768	16,767	129,943	6,939	24,248	65,059
Expenditures for plant and equipment, total.....do....	4,487	2,848	35,569	2,742	5,724	87,386
New, total.....do....	3,479	2,487	33,471	2,604	5,278	71,729
New structures and additions to plant.....do....	491	1,126	9,838	484	2,250	20,595
New machinery and equipment.....do....	2,989	1,361	23,633	2,120	3,028	51,134
Used plant and equipment.....do....	1,008	361	2,098	138	446	15,658
Selected operating ratios:						
Payroll/Total employment.....	5,551	5,798	5,981	6,166	6,347	5,843
Production workers/Total employment.....	.72	.71	.70	.66	.62	.80
Man-hours/Production workers.....	1,989	2,058	1,998	1,981	2,039	2,069
Production worker wages/Man-hours.....	2.41	2.44	2.65	2.60	2.64	2.64
Cost of materials and payrolls/Total value of shipments....	.76	.75	.77	.71	.75	.72
Cost of materials/Total value of shipments.....	.49	.47	.55	.45	.49	.33
Adjusted value added/Total employment.....	10,398	10,818	12,342	13,551	12,609	10,059
Salaries and wages/Adjusted value added.....	.53	.54	.48	.46	.50	.58

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See appendix A for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

<sup>3</sup>The specialization and coverage ratios are not shown for industry 3585 as the data from which these ratios are obtained include extensive duplication because the products of some establishments in the industry are consumed as materials by other establishments in the industry.

<sup>4</sup>For this industry respondents additionally reported the number of production workers in the pay period ended nearest the 15th of each month. This information is summarized below. The average number of production workers appearing above and in tables 1, 2, and 8 are computed on the basis of the average for the months of March, May, August and November.

Average number of production workers		
12 months.....	50,298	May..... 53,170
January.....	48,722	June..... 52,995
February.....	49,994	July..... 50,029
March.....	51,139	August..... 48,987
April.....	51,408	September..... 48,338
		October..... 49,395
		November..... 49,422
		December..... 49,984

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of-									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
	INDUSTRY 3581.—AUTOMATIC VENDING MACHINES										
Establishments.....number..	158	44	20	26	24	20	13	5	4	2	-
All employees:											
Total.....do....	11,672	86	126	369	808	1,474	2,072	1,777	<u>4,960</u>	(D)	-
Payroll.....\$1,000..	64,791	372	511	1,751	4,321	7,089	10,775	9,164	<u>30,808</u>	(D)	-
Value added, adjusted.....do....	121,365	752	703	3,443	7,285	10,264	20,331	23,774	<u>54,813</u>	(D)	-
Value of shipments.....do....	238,000	1,436	1,352	7,922	13,085	22,909	41,895	51,266	<u>98,135</u>	(D)	-
Capital expenditures, new...do....	3,479	77	86	252	345	407	843	996	<u>473</u>	(D)	-
	INDUSTRY 3582.—COMMERCIAL LAUNDRY EQUIPMENT										
Establishments.....number..	115	35	13	9	27	13	12	3	3	-	-
All employees:											
Total.....do....	6,542	65	91	133	820	930	1,733	2,770	(D)	-	-
Payroll.....\$1,000..	37,929	384	518	768	4,988	5,422	9,360	16,489	(D)	-	-
Value added, adjusted.....do....	70,771	740	958	1,871	10,836	11,318	16,001	29,047	(D)	-	-
Value of shipments.....do....	136,757	1,575	2,307	3,179	21,896	20,278	34,967	52,555	(D)	-	-
Capital expenditures, new...do....	2,487	20	20	35	209	190	380	<u>1,633</u>	(D)	-	-
	INDUSTRY 3585.—REFRIGERATION MACHINERY										
Establishments.....number..	698	163	94	94	132	79	70	33	24	5	4
All employees:											
Total.....do....	72,330	280	639	1,289	4,092	5,304	10,484	11,912	16,347	8,248	13,735
Payroll.....\$1,000..	432,583	1,422	3,311	7,048	22,356	31,344	58,695	67,952	95,887	50,240	94,328
Value added, adjusted.....do....	892,686	3,093	5,677	13,861	46,988	55,687	121,662	134,583	221,256	103,318	186,561
Value of shipments.....do....	1,928,001	6,980	12,368	29,699	93,936	117,711	247,339	316,292	450,680	224,975	428,021
Capital expenditures, new...do....	33,471	<u>147</u>	163	467	1,461	1,905	3,797	7,325	9,974	2,656	5,576
	INDUSTRY 3586.—MEASURING AND DISPENSING PUMPS										
Establishments.....number..	43	7	2	7	8	3	7	4	5	-	-
All employees:											
Total.....do....	6,768	30	(D)	97	440	(D)	830	1,452	3,919	-	-
Payroll.....\$1,000..	41,732	<u>160</u>	(D)	541	2,497	(D)	4,996	8,576	24,962	-	-
Value added, adjusted.....do....	91,713	<u>140</u>	(D)	1,171	4,379	(D)	11,577	24,357	50,089	-	-
Value of shipments.....do....	159,487	<u>459</u>	(D)	1,843	8,021	(D)	18,927	46,227	84,010	-	-
Capital expenditures, new...do....	2,604	<u>12</u>	(D)	33	<u>140</u>	(D)	227	457	1,735	-	-
	INDUSTRY 3589.—SERVICE INDUSTRY MACHINES, N.E.C.										
Establishments.....number..	506	181	107	76	61	43	30	6	2	-	-
All employees:											
Total.....do....	15,257	302	682	1,033	2,074	3,100	4,834	<u>3,232</u>	(D)	-	-
Payroll.....\$1,000..	96,834	1,770	3,420	6,496	13,297	18,142	30,416	<u>23,223</u>	(D)	-	-
Value added, adjusted.....do....	192,379	3,561	6,810	11,356	28,308	37,378	62,942	<u>42,024</u>	(D)	-	-
Value of shipments.....do....	378,300	6,832	13,446	24,664	51,401	72,124	122,501	<u>87,332</u>	(D)	-	-
Capital expenditures, new...do....	5,278	139	196	283	734	1,117	1,683	<u>1,126</u>	(D)	-	-
	INDUSTRY 3599.—MISCELLANEOUS MACHINERY										
Establishments.....number..	12,090	6,535	2,316	1,837	1,051	216	97	19	12	6	1
All employees:											
Total.....do....	135,820	11,357	15,538	24,687	30,970	14,419	14,361	6,265	7,971	<u>10,252</u>	(D)
Payroll.....\$1,000..	793,629	54,485	81,969	141,130	189,669	87,352	90,590	35,294	45,626	<u>67,514</u>	(D)
Value added, adjusted.....do....	1,366,327	110,617	143,033	231,942	297,169	140,132	156,482	65,799	83,593	<u>137,560</u>	(D)
Value of shipments.....do....	2,036,299	165,566	202,832	328,149	433,804	220,763	248,179	101,168	137,893	<u>197,945</u>	(D)
Capital expenditures, new...do....	71,729	9,862	9,044	12,421	14,888	7,487	6,196	4,176	2,488	<u>5,167</u>	(D)

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. n.e.c Not elsewhere classified.

<sup>1</sup>Includes capital expenditures for plants under construction but not in operation which constitute a small proportion of the total for the size class.



TABLE 5A. **Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B.C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3581	Automatic vending machines.....1963..	238,000	186,923	44,033	7,044	81	206,562	186,923	19,639	90
	1958..	141,635	120,674	10,425	10,536	92	130,850	120,674	10,176	92
3582	Commercial laundry equipment.....1963..	136,757	115,796	11,939	9,022	91	129,613	115,796	13,817	89
	1958..	119,499	100,751	6,558	12,190	94	106,590	100,751	5,839	95
3585	Refrigeration machinery.....1963..	1,928,001	1,588,471	193,788	145,742	( <sup>1</sup> )	2,104,632	1,588,471	516,161	( <sup>1</sup> )
	1958..	1,441,082	1,170,030	159,941	111,111	( <sup>1</sup> )	1,435,091	1,170,030	265,061	( <sup>1</sup> )
3586	Measuring and dispensing pumps....1963..	159,487	102,529	38,201	18,757	73	121,017	102,529	18,488	85
	1958..	119,045	78,590	26,477	13,978	75	88,217	78,590	9,627	89
3589	Service industry machines, n.e.c.....1963..	378,300	287,996	46,449	43,855	86	341,517	287,996	53,521	84
	1958..	245,227	180,665	31,479	33,083	85	221,987	180,642	41,345	81
3599	Miscellaneous machinery.....1963..	2,036,299	1,440,088	157,218	438,993	90	1,605,915	1,440,088	165,827	90
	1958..	1,481,295	1,003,419	91,477	386,399	92	1,117,684	1,003,419	114,265	90

Note: See appendix A for an explanation of terms used.

n.e.c. Not elsewhere classified.

<sup>1</sup>The total value of shipments of refrigeration machinery includes extensive duplication resulting from the use of products of certain establishments as materials by others within the same industry. Accordingly, the specialization and coverage ratios have not been calculated.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)

miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Automatic vending machines (SIC 3581)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Refrigeration machinery (SIC 3585)	Other industries
	<b>AUTOMATIC VENDING MACHINES INDUSTRY</b>					<b>REFRIGERATION MACHINERY INDUSTRY—Continued</b>			
	Total shipments and receipts of the industry.....	(X)	238,000	(X)	25420	Secondary products, total.....	(X)	193,788	(X)
	Primary products, total.....	206,562	186,923	<sup>1</sup> 19,639		Metal partitions, shelving, lockers, and office and store fixtures.....	(X)	6,605	(X)
35811	Automatic merchandising machines.	164,338	147,813	16,525	34332	Warm air furnaces (except floor and wall) except parts.....	(X)	41,411	(X)
35812	Coin-operated mechanisms and parts for automatic merchandising machines.....	32,757	29,670	3,087	34336	Other heating equipment (except electric) and parts for non-electric heating equipment.....	(X)	23,940	(X)
35810	Automatic vending machines, n.s.k.....	9,467	9,440	27	34443	Other sheet metal work.....	(X)	8,308	(X)
	Secondary products, total.....	(X)	44,033	(X)	3494-	Valves and pipe fittings.....	(X)	2,989	(X)
3585-	Refrigeration machinery.....	(X)	6,942	(X)	34990	Fabricated metal products, n.e.c..	(X)	4,777	(X)
	Other secondary products.....	(X)	237,091	(X)	35641	Industrial fans and blowers.....	(X)	8,932	(X)
	Miscellaneous receipts, total.....	(X)	7,044	(X)	35642	Dust collection, air purification equipment and air washers.....	(X)	2,905	(X)
	Contract and commission work.....	(X)	1,194	(X)	35811	Automatic merchandising machines..	(X)	3,389	(X)
	Sales of products bought and resold.....	(X)	4,032	(X)	36343	Other small household electric appliances.....	(X)	3,197	(X)
	Receipts for repair work.....	(X)	1,160	(X)		Other secondary products.....	(X)	11,87,335	(X)
	Other miscellaneous receipts.....	(X)	658	(X)		Miscellaneous receipts, total.....	(X)	145,742	(X)
		All industries	Commercial laundry equipment (SIC 3582)	Other industries		Contract and commission work.....	(X)	10,293	(X)
	<b>COMMERCIAL LAUNDRY EQUIPMENT INDUSTRY</b>					Sales of products bought and resold.....	(X)	90,945	(X)
	Total shipments and receipts of the industry.....	(X)	136,757	(X)		Installation work by manufacturing plant employees.....	(X)	7,042	(X)
35820	Commercial laundry, dry cleaning, and pressing machinery and equipment.....	129,613	115,796	<sup>3</sup> 13,817		Repair work.....	(X)	15,595	(X)
	Secondary products, total.....	(X)	411,939	(X)		Scrap and salable refuse.....	(X)	3,594	(X)
	Miscellaneous receipts, total.....	(X)	9,022	(X)		Other miscellaneous receipts.....	(X)	18,273	(X)
	Contract and commission work.....	(X)	768	(X)			All industries	Measuring and dispensing pumps (SIC 3586)	Other industries
	Sales of products bought and resold.....	(X)	6,493	(X)	35860	<b>MEASURING AND DISPENSING PUMPS INDUSTRY</b>			
	Receipts for installation of products.....	(X)	652	(X)		Total shipments and receipts of the industry.....	(X)	159,487	(X)
	Receipts for repair work.....	(X)	604	(X)		Measuring and dispensing pumps.....	121,017	102,529	<sup>12</sup> 18,488
	Other miscellaneous receipts.....	(X)	505	(X)	3561-	Secondary products.....	(X)	38,201	(X)
		All industries	Refrigeration machinery (SIC 3585)	Other industries		Pumps and compressors.....	(X)	9,614	(X)
	<b>REFRIGERATION MACHINERY INDUSTRY</b>					Other secondary products.....	(X)	13,28,587	(X)
	Total shipments and receipts of the industry.....	(X)	51,928,001	(X)		Miscellaneous receipts, total.....	(X)	18,757	(X)
	Primary products, total.....	52,104,632	51,588,471	516,161		Sales of products bought and resold.....	(X)	14,347	(X)
35851	Heat transfer equipment.....	1,158,793	799,024	<sup>6</sup> 359,769		Other.....	(X)	4,410	(X)
35853	Commercial refrigeration equipment.....	253,711	227,034	<sup>7</sup> 26,677			All industries	Service industry machines, n.e.c. (SIC 3589)	Other industries
35854	Compressors and compressor units, all refrigerants.....	269,359	210,313	<sup>8</sup> 59,046	35891	<b>SERVICE INDUSTRY MACHINES, N.E.C., INDUSTRY</b>			
35855	Condensing units, all refrigerants.....	73,538	67,818	<sup>9</sup> 5,720	35892	Total shipments and receipts of the industry.....	(X)	378,300	(X)
35857	Other refrigeration and air-conditioning equipment, including soda fountain and beer dispensing equipment.....	302,530	237,675	<sup>10</sup> 64,855	35893	Primary products, total.....	341,517	287,996	53,521
35850	Refrigeration machinery, n.s.k.....	46,701	46,607	94		Commercial cooking and food warming equipment.....	106,965	92,470	<sup>14</sup> 14,495
						Service industry machines, and parts.....	196,701	162,948	<sup>15</sup> 33,753
						Commercial and industrial vacuum cleaners, including attachments and parts.....	18,996	13,988	<sup>16</sup> 5,008
					35890	Service-industry machines, n.e.c., n.s.k.....	18,855	18,590	265

See footnotes at end of table.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Service industry machines, n.e.c. (SIC 3589)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Miscellaneous machinery (SIC 3599)	Other industries
	SERVICES INDUSTRY MACHINES, N.E.C., INDUSTRY—Continued					MISCELLANEOUS MACHINERY INDUSTRY—Continued			
	Secondary products, total.....	(X)	1746,449	(X)		Secondary products—Continued			
	Miscellaneous receipts, totals.....	(X)	43,855	(X)					
	Contract and commission work.....	(X)	1,628	(X)	35414	Grinding and polishing machines (excluding gear tooth grinding, honing, lapping, polishing and buffing machines).....	(X)	3,058	(X)
	Sales of products bought and resold.....	(X)	33,799	(X)	35441	Special dies and tools, die sets, jigs, and fixtures.....	(X)	9,293	(X)
	Receipts for installation of products.....	(X)	2,013	(X)	3559-	Special industry machines, n.e.c..	(X)	3,677	(X)
	Receipts for repair work.....	(X)	3,692	(X)	35690	General industrial machinery, n.e.c.....	(X)	13,285	(X)
	Other miscellaneous receipts.....	(X)	2,723	(X)	37175	Parts and accessories for passenger cars, trucks, and busses shipped to motor vehicle manufacturers.....	(X)	21,140	(X)
		All industries	Miscellaneous machinery (SIC 3599)	Other industries	37291	Other aircraft parts and auxiliary equipment.....	(X)	3,414	(X)
						Other secondary products.....	(X)	19,90,016	(X)
	MISCELLANEOUS MACHINERY INDUSTRY					Miscellaneous receipts.....	(X)	438,993	(X)
	Total shipments and receipts of the industry.....	(X)	2,036,299	(X)					
35990	Carburetors, pistons, and other machine shop products.....	1,605,915	1,440,088	18165,827		Contract and commission work.....	(X)	302,869	(X)
	Secondary products, total.....	(X)	157,218	(X)		Sales of products bought and resold.....	(X)	57,109	(X)
33214	All other gray iron castings.....	(X)	9,082	(X)		Receipts for installation of products.....	(X)	5,524	(X)
33610	Aluminum and aluminum-base alloy castings.....	(X)	4,253	(X)		Research and development.....	(X)	2,626	(X)
						Receipts for repair work.....	(X)	46,707	(X)
						Other miscellaneous receipts.....	(X)	24,158	(X)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Includes \$3.9 million shipped by industry 3585, Refrigeration Machinery. In addition, the following industry had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3651, Radio and TV Receiving Sets.

<sup>2</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 36341, Electric fans, except industrial type; 36343, Other small household electric appliances; 36350, Household vacuum cleaners, including parts and attachments; 36393, Other household appliances and parts; and 36513, Recorders, audio amplifiers, phonographs, tuners, speaker systems, and other audio equipment and accessories.

<sup>3</sup>Includes \$7 million shipped by industry 3633, Household Laundry Equipment.

<sup>4</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 35690, General industrial machinery, n.e.c., and 38213, Industrial process instruments.

<sup>5</sup>The total value of shipments of the Refrigeration Machinery Industry includes extensive duplication resulting from the use of products of some establishments in the industry as materials by others within the same industry.

<sup>6</sup>The following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3494, Valves and Pipe Fittings; 3564, Blowers and Fans; 3631, Household Cooking Equipment; 3639, Household Appliances, N.E.C.; 3651, Radio and TV Receiving Sets; 3717, Motor Vehicles and Parts; and 3729, Aircraft Equipment, N.E.C.

<sup>7</sup>Includes \$17.5 million shipped by industry 3632, Household Refrigerators. In addition, the following industry had shipments which totaled \$2 million or more but is withheld to avoid disclosing figures for individual companies: 3589, Service Industry Machines, N.E.C.

<sup>8</sup>The following industry had shipments which totaled \$2 million or more but is withheld to avoid disclosing figures for individual companies: 3631, Household Cooking Equipment.

<sup>9</sup>The following industry had shipments which totaled \$2 million or more but is withheld to avoid disclosing figures for individual companies: 3351, Copper Rolling and Drawing.

<sup>10</sup>Includes \$7.4 million shipped by industry 3433, Heating Equipment, Except Electric; \$12.3 million shipped by industry 3494, Valves and Pipe Fittings; and \$10.1 million shipped by industry 3632, Household Refrigerators. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3567, Industrial Furnaces and Ovens; 3569, General Industry Machines, N.E.C.; 3723, Aircraft Propellers and Parts; and 3729, Aircraft Equipment, N.E.C.

<sup>11</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 19310, Tanks and tank components; 19410, Sighting and fire-control equipment made from purchased lenses; 24331, Fabricated structural framing and wood laminates, ready-cut wood buildings; and panels or sections for prefabricated buildings; 33620, Copper and copper-base alloy castings; 34333, Cast iron heating boilers, radiators, and convectors, except parts; 34334, Domestic heating stoves (except electric), except parts; 34431, Heat exchangers and steam condensers; 34434, Gas cylinders; 35112, Steam, gas, and hydraulic turbine and parts; steam engines and parts; 35424, Parts for metal forming machine tools and rebuilt metal forming machinery; 35481, Rolling-mill machinery and equipment; 35595, Other special industry machinery, and equipment; 35690, General industrial machinery, n.e.c.; 36312, Household ovens and ranges, equipment and parts, except electric; 37175, Parts and accessories for passenger cars, trucks and busses, shipped to motor vehicle manufacturers; 37176, Parts and accessories for passenger cars, trucks, and busses shipped to other than motor vehicle manufacturers; and 37413, Parts for locomotives, for sale separately, and rebuilt locomotives.

<sup>12</sup>Includes \$6.9 million shipped by industry 3561, Pumps and Compressors. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3494, Valves and Pipe Fittings; and 3548, Metalworking Machinery, N.E.C.

<sup>13</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 34942, Metal fittings and unions for piping systems; 34944, Other metal valves and fittings, except plumbers' brass goods and fittings; 35333, Oil and gas field production machinery and equipment (except pumps); and 35595, Other special industry machinery and equipment.

<sup>14</sup>The following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3631, Household Cooking Equipment; and 3634, Electric Housewares and Fans.

Footnotes continued on next page.

**TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued**

Footnotes for Table 5B--35G--Continued

<sup>15</sup>Includes \$3.8 million shipped by industry 3639, Household Appliances, N.E.C. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 2842, Polishes and Sanitation Goods, and 3535, Conveyors.

<sup>16</sup>Includes \$2.3 million shipped by industry 3548, Metalworking Machinery, N.E.C.

<sup>17</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 35482, Power-driven hand tools including parts and attachments; 35611, Industrial pumps except hydraulic fluid power; 35853, Commercial refrigeration equipment; and 38213, Industrial process instruments.

<sup>18</sup>Includes \$4.5 million shipped by industry 3323, Steel Foundries; \$2.2 million by industry 3361, Aluminum Castings; \$2.3 million by industry 3494, Valves and Pipe Fittings; \$3.8 million by industry 3541, Metal-Cutting Machine Tools; \$11.9 million by industry 3544, Special Dies and Tools; \$2.4 million by industry 3548, Metalworking Machinery, N.E.C.; \$3 million by industry 3559, Special Industry Machines, N.E.C.; \$6.9 million by industry 3561, Pumps and Compressors; \$6.1 million by industry 3569, General Industry Machines, N.E.C.; \$8.9 million by industry 3717, Motor Vehicles and Parts; and \$13.5 million by industry 3729, Aircraft Equipment, N.E.C. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3293, Gaskets and Insulations; 3312, Blast Furnaces and Steel Mills; 3352, Aluminum Rolling and Drawing; 3441, Fabricated Structural Steel; 3461, Metal Stampings; 3624, Carbon and Graphite Products; 3679, Electronic Components, N.E.C.; 3694, Engine Electrical Equipment; 3731, Ship Building and Repairing; and 3821, Mechanical Measuring Devices.

<sup>19</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 19293, Ammunition, n.e.c.; 19990, Ordnance and accessories, n.e.c.; 32933, Packing, except leather, rubber, and metal, and asbestos insulations; 34431, Heat exchangers and steam condensers; 34941, Metal valves for piping systems (except plumbing and heating valves); 34980, Fabricated pipe and fittings; 35370, Industrial trucks and tractors; 35641, Industrial fans and blowers; 36945, Other complete electrical equipment for internal combustion engines; 36946, Components and parts for engine electrical equipment; 37176, Parts and accessories for passenger cars, trucks and busses, shipped to other than motor vehicle manufacturers; and 38214, Motor vehicle instruments, except electric.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3581- --	AUTOMATIC VENDING MACHINES AND PARTS, TOTAL.....	(X)	206,562	(X)	130,850
35811 --	Automatic vending machines (complete units):				
	As reported in the census of manufactures, total.....	(X)	164,338	(X)	<sup>1</sup> 110,548
	As reported on Census Annual Form MA-35U, total.....	(X)	163,521	(X)	<sup>1</sup> 108,400
	Vending machines for beverages:				
	Coffee: <sup>2</sup>				
35810 02	Instant or liquid concentrates.....	6,954	2,783	13,093	10,260
35810 03	Fresh brew (batch).....	4,133	4,991		
35810 04	Fresh brew (single cup).....	16,226	15,887		
35810 05	Canned beverages (refrigerated).....	4,103	2,575	( <sup>3</sup> )	( <sup>3</sup> )
	Soft drink:				
35810 07	Bottle.....	145,433	52,722	110,561	36,011
35810 08	Cup (postmix).....	13,055	18,237	5,445	4,528
35810 11	Cup (premix).....	5,088	4,467	8,146	4,971
35810 01, 06, 19 }	Other vending machines for beverages <sup>4</sup> .....	5,898	4,398	<sup>3</sup> 7,883	<sup>3</sup> 5,315
	Vending machines for confections and foods:				
35810 21	Bulk.....	113,295	1,812	77,423	1,414
35810 22	Candy bar.....	41,765	13,768	26,271	7,077
35810 23	Hot canned foods and soups.....	2,573	1,322	31,099	6,418
35810 25, 26 }	Multipurpose (refrigerated and nonrefrigerated).....	4,982	6,659		
35810 24, 27, 29 }	Other vending machines for confections and foods <sup>5</sup> .....	17,088	6,190		
	All other vending machines:				
35810 31	Cigarette.....	62,793	21,311	98,989	27,927
35810 33	Ice.....	854	2,793	609	1,541
35810 35	Postage stamp.....	13,382	706	11,105	505
35810 39	All other vending machines except for beverages, confections and foods <sup>6</sup> .....	149,043	2,900	83,706	2,433
35812 --	Coin-operated mechanisms and parts for automatic vending machines, total..	(X)	32,757	(X)	<sup>7</sup> 20,302
35812 51	Coin-operated mechanisms (for sale separately).....	1,120,997	19,129	800,419	15,624
35812 69	Parts for automatic vending machines (except coin-operated mechanisms)...	(X)	13,628	(X)	4,678
35810 00	Automatic vending machines and parts, n.s.k.....	(X)	9,467		
3582- --	COMMERCIAL LAUNDRY, DRY CLEANING, AND PRESSING MACHINES, TOTAL.....	(X)	129,613	(X)	106,590
	Commercial laundry equipment and laundry presses:				
35820 21	Washers only.....	5,653	8,750	6,056	11,262
35820 22	Extractors only.....	6,576	5,556	4,329	5,604
35820 23	Washer-extractor combinations.....	7,380	14,456	513	1,690
35820 25	Drying tumblers.....	49,787	20,948	41,818	17,756
35820 26	Ironers, flatwork.....	1,694	5,743	1,448	4,723
35820 27	Presses, laundry.....	15,848	18,679	12,605	16,851
35820 28	Other commercial laundry equipment.....	(X)	7,711	(X)	13,405
35820 31	Parts, attachments, and accessories <sup>8</sup> .....	(X)	14,155		
	Dry cleaning equipment and clothing presses:				
	Dry cleaning units:				
35820 32	Coin-operated.....	5,187	10,184	1,951	8,776
35820 33	Other than coin-operated.....	1,560	3,926		
35820 52	Washer-extractors.....	470	2,469	542	2,812
35820 81	Other dry cleaning equipment, including tailor-type presses, washers, extractors and reclaiming units.....	(X)	9,168	(X)	15,074
35820 81	Parts, attachments, and accessories <sup>8</sup> .....	(X)	2,666		
35820 00	Commercial laundry, dry cleaning, and pressing machines, n.s.k.....	(X)	5,202	(X)	8,637
3585- --	REFRIGERATION MACHINERY, TOTAL.....	(X)	<sup>9</sup> 2,104,632	(X)	<sup>9</sup> 1,435,091
35851 --	Heat transfer equipment, total <sup>10</sup> .....	(X)	1,158,793	(X)	715,914
	Heat transfer equipment (evaporative condensers, unit coolers, etc.), centrifugal liquid chilling packages, unitary air conditioners, and other air-conditioning and refrigeration equipment:				
	As reported in the census of manufactures.....	(X)	<sup>1</sup> 850,403	(X)	(NA)
	As reported on Census Form MA-35M.....	(X)	<sup>1</sup> 835,122	(X)	458,235

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3585- --	REFRIGERATION MACHINERY—Continued				
35851 --	Heat transfer equipment—Continued				
	Heat transfer equipment (evaporative condensers, unit coolers, etc.), centrifugal liquid chilling packages, unitary air conditioners, and other air-conditioning and refrigeration equipment—Continued				
	As reported on Census Form MA-35M—Continued				
	Evaporative condensers:				
35851 01	10 tons and under.....	136	100	496	372
35851 02	10.1-15 tons.....	206	221	395	360
35851 03	15.1-20 tons.....	189	199	384	392
35851 04	20.1-30 tons.....	451	595	740	967
35851 05	30.1-50 tons.....	666	1,193	948	1,728
35851 06	50.1-100 tons.....	998	2,822	882	2,505
35851 07	Over 100 tons.....	450	2,550	250	1,498
	Room fan-coil air-conditioning units:				
35851 08	Between the studs.....	29,554	2,434	96,235	9,038
35851 09	Vertical.....	173,107	13,974		
35851 10	Horizontal.....	147,928	10,178		
35851 11	Room air-induction units.....	85,930	4,638	57,814	3,686
	Central station air-conditioning units, motor driven fan type:				
35851 12	3 tons and under.....	13,691	6,468	15,589	1,996
35851 13	3.1-5 tons.....		4,809	4,809	1,861
35851 14	5.1-10 tons.....		4,003	3,740	2,330
35851 15	10.1-25 tons.....		10,206	8,286	8,660
35851 16	25.1-50 tons.....		10,657	4,859	7,931
35851 17	Over 50 tons.....	3,251	7,791	2,654	6,822
	Unit coolers (refrigeration):				
	Ceiling and wall mounted types:				
35851 18	1,000 B.t.u./hr. and under.....	14,855	378	10,549	386
35851 19	1,001-2,000 B.t.u./hr.....	29,343	1,028	20,067	875
35851 20	2,001-4,000 B.t.u./hr.....	19,461	1,337	14,151	849
35851 21	4,001-6,000 B.t.u./hr.....	13,529	1,374	9,000	918
35851 22	6,001-8,000 B.t.u./hr.....	9,627	1,192	8,359	1,028
35851 23	8,001-12,000 B.t.u./hr.....	11,427	2,131	14,086	2,511
35851 24	12,001-18,000 B.t.u./hr.....	8,810	2,433	5,760	1,155
35851 25	Over 18,000 B.t.u./hr.....	10,164	6,494	8,728	3,734
35851 26	Floor-mounted dry-type.....	653	1,472	941	1,771
35851 27	Floor-mounted spray-type.....	351	1,226	289	859
	Other heat transfer equipment:				
	Air-cooled refrigerant condensers, remote-type:				
35851 28	5 tons and under.....	2,643	723	2,203	650
35851 29	5.1-7.5 tons.....	1,605	592	878	397
35851 30	7.6-10 tons.....	1,730	697	590	283
35851 31	10.1-15 tons.....	1,383	804	223	161
35851 32	15.1-20 tons.....	2,086	1,305	199	148
35851 33	20.1-30 tons.....	1,435	1,325	209	273
35851 34	Over 30 tons.....	2,093	3,646		
35851 35	Shell-and-tube, shell-and-coil, shell-and-U-tube, tube-in-tube condensers.....	(X)	5,545	(X)	56,385
35851 36	Shell-and-tube, shell-and-coil, shell-and-U-tube, tube-in-tube liquid coolers.....	(X)	5,297		
35851 37	Liquid-suction heat exchangers, and refrigerant liquid receivers..	(X)	1,458		
	Finned coils, air-conditioning and refrigeration-type, used with but not including means for air circulation:				
35851 38	Standard steam and steam distributing tube.....	(X)	7,064	(X)	56,385
35851 39	Standard water cooling and/or heating and cleanable tube water..	(X)	7,703		
35851 40	Volatile refrigerant cooling.....	(X)	5,757		
35851 41	Coil sales by original equipment manufacturers intended for resale or assembly into equipment by other manufacturers (all types).....	(X)	33,286	(X)	56,385
35851 42	Factory-assembled, refrigeration-type, finned gravity coils.....	(X)	4,198		
35851 43	Wetted-surface dehumidifiers.....	(X)	1,362		
	Unitary air conditioners:				
	Air conditioners (except window and wall types):				
	Self-contained (integral-condenser type):				
35851 44, 45	Under 27,000 B.t.u./hr <sup>11</sup> .....	18,812	5,067	31,305	9,925
35851 46, 47	27,000-32,999 B.t.u./hr <sup>11</sup> .....	5,291	1,682		

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3585- --	REFRIGERATION MACHINERY—Continued				
35851 --	Heat transfer equipment—Continued				
	Heat transfer equipment (evaporative condensers, unit coolers, etc.), centrifugal liquid chilling packages, unitary air conditioners, and other air-conditioning and refrigeration equipment—Continued				
	As reported on Census Form MA-35M—Continued				
	Unitary air conditioners—Continued				
	Air conditioners (except window and wall types)—Continued				
	Self-contained (integral-condenser type)—Continued				
35851 48, 49	33,000-53,999 B.t.u./hr. <sup>11</sup> .....	24,343	11,291	20,211	10,310
35851 50, 51	54,000-96,999 B.t.u./hr. <sup>11</sup> .....	20,185	15,895	18,755	16,641
35851 52	97,000-134,999 B.t.u./hr.....	3,944	5,444	6,906	9,346
35851 53	135,000-184,999 B.t.u./hr.....	1,623	2,839	3,745	7,271
35851 54	185,000-249,999 B.t.u./hr.....	1,158	2,389	2,325	5,188
35851 55	250,000-319,999 B.t.u./hr.....	704	1,756	1,506	4,226
35851 56	320,000-379,999 B.t.u./hr.....	605	1,896	524	2,275
35851 57	380,000 B.t.u./hr and over.....	855	4,192	361	2,439
35851 58	Remote-condenser type.....	8,027	8,073	4,755	5,463
35851 59	Refrigeration chassis.....	656	270	3,585	1,501
35851 60	Year-round air conditioners, self-contained and remote-condenser type (except heat pumps).....	36,238	34,553	11,973	12,622
35851 61	Heat pumps (except room air conditioners):				
35851 62	Self-contained.....	52,195	25,290	13,372	9,001
	Other than self-contained.....	21,907	13,469	12,089	9,846
	Split systems:				
	Air-conditioning condensing units:				
35851 63	Under 22,000 B.t.u./hr.....	24,055	4,888	99,129	55,240
35851 64	22,000-26,999 B.t.u./hr.....	83,341	17,954		
35851 65	27,000-32,999 B.t.u./hr.....	44,158	12,317		
35851 66	33,000-41,999 B.t.u./hr.....	114,812	40,430		
35851 67	42,000-53,999 B.t.u./hr.....	45,608	21,197		
35851 68	54,000-64,999 B.t.u./hr.....	39,585	21,350		
35851 69	65,000-96,999 B.t.u./hr.....	10,662	8,968		
35851 70	97,000-134,999 B.t.u./hr.....	8,911	9,515		
35851 71	135,000-184,999 B.t.u./hr.....	5,190	7,242	2,191	12,743
35851 72	185,000 B.t.u./hr. and over.....	1,769	3,904		
	Air-conditioning coils:				
25851 73	With blower.....	66,733	15,256	23,934	6,405
35851 74	Without blower.....	250,025	18,287	63,367	6,520
35851 75	Absorption liquid chilling systems.....	1,315	19,202	2,191	12,743
35851 76	Absorption and open-type absorption systems.....	745	1,503		
	Mobile vehicle refrigeration systems:				
35851 77	Mechanical refrigeration systems-railway freight cars.....	19,755	43,315	7,525	15,911
35851 78	Mechanical refrigeration systems-other mobile vehicles.....				
35851 79	Mechanical air-conditioning systems for passenger automobiles.....	1,440,987	139,425	427,109	39,914
	Ice-making machines:				
	Self-contained:				
	Ice cube makers:				
35851 80, 81	Automatic, 250 lbs. and under.....	26,785	9,009	15,542	6,594
35851 82	Automatic, 251-500 lbs.....	10,747	7,221	6,390	4,776
35851 83	All other (automatic over 500 lbs. and non-automatic).....	457	887	692	503
	Flake or chip machines:				
35851 84	500 lbs. and under.....	9,298	4,115	8,022	5,005
35851 85	Over 500 lbs.....	6,817	6,425		
35851 86	Not self-contained.....	413	849	472	1,035
	Reciprocating liquid chilling packages:				
35851 87	20 hp. and under.....	4,071	5,171	4,549	15,769
35851 88	21-49 hp.....	2,487	8,786		
35851 89	50-75 hp.....	2,069	10,849		
35851 90	Over 75 hp.....	1,021	8,453		

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3585- --	REFRIGERATION MACHINERY—Continued				
35851 --	Heat transfer equipment—Continued				
	Heat transfer equipment (evaporative condensers, unit coolers, etc.), centrifugal liquid chilling packages, unitary air conditioners, and other air-conditioning and refrigeration equipment—Continued				
	As reported on Census Form MA-35M—Continued				
	Unitary air conditioners—Continued				
	Reciprocating liquid chilling packages—Continued				
35851 97	Number of water chilling units.....	8,686	(X)	4,100	(X)
35851 98	Number of other chilling units.....	962	(X)	449	(X)
35851 99	Number of open-type units.....	1,193	(Y)	(NA)	(X)
35851 00	Number of hermetic-type units.....	8,455	(X)	(NA)	(X)
35851 91	Electrically operated dehumidifiers mechanically refrigerated-type, self-contained.....	224,520	11,759	223,354	12,753
	Factory-assembled water-cooling towers:				
	Mechanical-draft type:				
35851 93	5 tons and under.....	6,980	1,573	4,371	610
35851 94	5.1-20 tons.....	7,347	2,469	17,178	4,859
35851 95	20.1 tons and over.....	9,237	17,710	7,952	8,357
35851 96	Natural-draft type.....	1,568	195	4,853	615
	Centrifugal liquid chilling packages:				
	Hermetic-type:				
35854 81	100 hp. and under.....	720	9,495	475	8,885
35854 82	101-200 hp.....			216	5,881
35854 83	201-300 hp.....			122	4,307
35854 84	301-400 hp.....			68	2,893
35854 85	401-500 hp.....	151	3,824		
35854 86, 87	Over 500 hp.....	208	7,808	67	3,803
	Open-type:				
35854 88	200 hp. and under.....	32	567	13	307
35854 89	201-300 hp.....	171	5,172	20	546
35854 91	301-400 hp.....			109	5,421
35854 92	401-500 hp.....				
35854 93	501-1,000 hp.....				
35854 94	Over 1,000 hp.....	34	2,156		
35854 95	Number of water chilling units.....	1,984	(X)	1,045	(X)
35854 96	Number of brine chilling units.....	73	(X)	45	(X)
	Room air conditioners:				
	As reported in the census of manufactures.....	(X)	<sup>1</sup> 308,390	(X)	(NA)
	As reported on Census Form MA-35M.....	(X)	<sup>1</sup> 296,045	(X)	257,679
35852 01	Room air conditioners:				
	5,999 B.t.u./hr. and under.....	145,244	14,721	1,674,713	257,679
35852 02	6,000-6,999 B.t.u./hr:				
35852 03	7 1/2 amp. 115 volts.....	188,098	21,858		
	All other.....	65,567	8,845		
35852 04	7,000-7,999 B.t.u./hr:				
35852 05	7 1/2 amp. 115 volts.....	9,899	1,198		
	All other.....	71,582	11,155		
35852 06	8,000-8,999 B.t.u./hr:				
35852 07	115 volts.....	184,879	22,585		
	208 - 230 volts.....	82,670	11,696		
35852 08	9,000-9,999 B.t.u./hr:				
35852 09	115 volts.....	29,425	4,120		
	208 - 230 volts.....	137,809	18,276		
35852 10	10,000-10,999 B.t.u./hr:				
35852 11	115 volts.....	42,993	5,990		
	208 - 230 volts.....	69,805	10,894		
35852 12	11,000-12,999 B.t.u./hr:				
35852 13	115 volts.....	68,545	9,759		
	208 - 230 volts.....	210,830	31,715		
35852 14	13,000-14,999 B.t.u./hr.....	151,725	26,224		
35852 15	15,000-16,999 B.t.u./hr.....	140,042	24,867		
35852 16	17,000-19,999 B.t.u./hr.....	178,516	33,635		
35852 17	20,000-22,999 B.t.u./hr.....	99,825	18,587		
35852 18	23,000-25,999 B.t.u./hr.....	69,872	15,298		
35852 20	26,000 and over.....	18,409	4,622		

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3585- --	REFRIGERATION MACHINERY—Continued				
35853 --	Commercial refrigerators and related equipment, total.....	(X)	253,711	(X)	240,409
	Refrigerated enclosures, including self-contained units, remote units with or without condensing units, and cabinets. Cabinets shipped to other manufacturers of commercial refrigeration equipment are shown under code 3585798:				
35853 12	Sectional coolers or cooling rooms of the prefabricated (factory produced) type, including walk-in, roll-in, and combination cooler display types.....	36,374	33,745	17,565	18,104
35853 16	Reach-in refrigerators (except dairy refrigerators and wall boxes, and florists' cabinets).....	26,328	17,478	27,121	15,530
35853 17	Dairy refrigerators and wall boxes.....	10,654	7,258	6,930	4,273
	Display cases for meat, dairy products, produce, and other perishables, operated at normal temperatures; i.e., not intended for frozen foods, ice cream, etc.:				
35853 22	Closed.....	16,232	8,693	11,863	7,211
	Open, self-service:				
35853 24	Single-duty.....	27,617	17,644	19,973	12,104
35853 26	Double-duty.....	6,451	4,915	17,188	13,497
35853 28	Multiple deck.....	18,015	15,258	12,865	11,000
	Display cases and cabinets for frozen foods, ice cream and other foods operated at low temperatures (except coin-operated):				
35853 32	Frozen food display cases, open, self-service.....	49,714	29,643	45,596	33,091
35853 34	Frozen food cabinets, low temperature reach-ins, etc., closed types.....	16,560	8,239	9,668	5,734
35853 36	Ice cream counter freezers (include frozen custard machines).....	3,789	4,294	5,055	7,691
35853 38	Ice cream dispensing and hardening cabinets.....	23,202	7,162	31,119	11,620
	Mechanical drinking water coolers:				
35853 43	As reported in the census of manufactures <sup>3</sup> .....	(X)	28,615	(X)	22,030
	As reported on Census Form MA-35M <sup>3</sup> .....	195,613	26,509	139,276	20,390
	Mechanical beverage-cooling and dispensing equipment (except coin-operated):				
35853 52	Bottled beverage coolers, dry and wet types.....	38,620	11,443	39,920	11,331
35853 57	Bulk beverage dispensers (include malt dispensers and pre-cooler cabinets).....	41,887	11,680	39,053	7,363
	Farm and dairy milk coolers:				
35853 72	Immersion type (mechanically refrigerated).....	2,836	1,003	13,662	5,210
35853 75	Bulk tank storage coolers.....	9,372	12,295	15,882	25,098
35853 79	Other commercial refrigerators (include florists' refrigerators, dough retarders, egg refrigerators, environmental control equipment, laboratory and industrial refrigerators, mortuary refrigerators, etc.).....	(X)	26,996	(X)	10,447
35853 00	Unitary commercial refrigeration equipment, n.s.k.....	(X)	7,350	(X)	19,075
Product code	Product	1963		1958	
		Total shipments including interplant transfers		Total shipments including interplant transfers	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
35854 --	Compressors and compressor units, all refrigerants, total...	(X)	269,359	(X)	181,821
35854 14	Compressors and motor compressors for household refrigerators.....	973,940	20,060	(NA)	40,365
	Compressors and motor compressors, refrigeration (except for household refrigerators):				
	As reported in the census of manufactures <sup>1</sup> .....	(X)	249,299	(X)	141,456
	As reported on Census Form MA-35M <sup>1</sup> .....	(X)	238,563	(X)	139,909
	All refrigerants (except ammonia):				
35854 21-29	10 hp. and under hermetic-type motor compressors:				
	2.5 hp. and under.....	3,743,412	116,973	138,368,580	
35854 30,31	3-4 hp.....	202,668	17,447	13281,093	
35854 32,33	5-7.5 hp.....	70,481	11,518	13151,177	
35854 34	10 hp.....	9,880	3,076	1328,233	

See footnotes at end of table.

TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	1963			1958		
		Total shipments including interplant transfers		Number of compressor bodies manufactured	Total shipments including interplant transfers		Number of compressor bodies manufactured
		Quantity (number of units)	Value (\$1,000)		Quantity (number of units)	Value (\$1,000)	
3585- --	REFRIGERATION MACHINERY—Continued						
35854 --	Compressors and compressor units, all refrigerants—Continued						
	Compressors and motor compressors, refrigeration (except for household refrigerators)—Continued						
	As reported on Census Form MA-35M—Continued						
	All refrigerants (except ammonia)—Continued						
	10 hp. and under open-type compressors (with or without motors):						
35854 35	3/4 hp. and under.....	18,513	851	(13)	20,339	627	(13)
35854 36	1 hp.....	3,020	178	(13)	1,847	110	(13)
35854 37	1.5 hp.....			(13)	1,199	100	(13)
35854 38	2 hp.....	1,476	146	(13)	5,081	315	(13)
35854 39	3 hp.....			(13)	6,628	629	(13)
35854 41, 43 }	4-5 hp.....	8,239	872	(13)	3,803	906	(13)
35854 44	7.5 hp.....	3,917	1,094	(13)	2,158	544	(13)
35854 45	10 hp.....	707	381	(13)	1,039	485	(13)
	Over 10 hp. (open and hermetic types): <sup>15</sup>						
35854 46	15 hp.....	5,250	2,172	14,680	1,211	776	(13)
35854 47	20 hp.....	3,759	1,812	4,610	846	711	(13)
35854 48	25 hp.....	1,238	1,382	2,576	1,094	1,162	2,174
35854 49	30 hp.....	1,621	1,525	1,868	1,324	1,422	1,684
35854 51	40 hp.....	1,380	1,830	2,222	1,108	1,509	2,016
35854 52	50 hp.....	968	1,585	1,470	791	1,417	1,151
35854 53	60 hp.....	905	1,611	1,436	594	1,141	1,017
35854 54	75 hp.....	1,100	2,045	1,743	373	880	576
35854 55	100 hp.....	320	712		215	600	
35854 56	Over 100 hp.....	158	576	1,032	103	394	419
35854 57	Number of "open-type" units.....	7,005	(X)	(NA)	(NA)	(X)	(NA)
35854 58	Number of "hermetic-type" units.....	9,694	(X)	(NA)	(NA)	(X)	(NA)
35854 59	Automotive air conditioning (open-type, with or without motor) <sup>16</sup>	1,545,173	63,270	1,545,173	443,535	20,867	443,535
	Ammonia refrigerants:						
35854 61	15 hp. and under.....	282	249		366	373	
35854 62	20 hp.....	220	379		296	423	
35854 63	25 hp.....	198	411		192	350	
35854 64	30 hp.....	146	309		173	394	
35854 65	40 hp.....	335	894		226	547	
35854 66	50 hp.....	178	582	2,105	140	398	1,861
35854 67	60 hp.....	382	1,370		238	754	
35854 68	75 hp.....	202	894		146	519	
35854 69	100 hp.....				81	389	
35854 71	101-200 hp.....				161	1,052	
35854 72	201 hp. and over.....	390	2,419		26	467	
				Total shipments including interplant transfers			
				1963		1958	
	Product			Quantity	Value	Quantity	Value
				(number of units)	(\$1,000)	(number of units)	(\$1,000)
35855 --	Condensing units, all refrigerants, total.....		(X)	73,538		(X)	70,307
35855 14	Condensing units for household refrigerators (air-cooled hermetic type).	141,144		5,562		100,600	5,893
	Condensing units (except for household refrigerators):						
	As reported in the census of manufactures <sup>1</sup> .....		(X)	67,976		(X)	64,414
	As reported on Census Form MA-35M <sup>1</sup> .....		(X)	66,305		(X)	62,720
	Air-cooled:						
	Open-type:						
35855 21	3/4 hp. and under.....	7,144		618		15,674	1,681
35855 22	1 hp.....	1,430		222		3,165	524
35855 23	1.5 hp.....			208		2,252	584
35855 24	2 hp.....	1,080		255		2,144	623
35855 25	Over 2 hp. but under 15 hp.....	1,349		475		3,325	1,259
	Hermetic-type:						
35855 26	1/5 hp. and under.....					74,706	3,163
35855 27	1/4 hp.....					127,808	7,209
35855 28	1/3 hp.....					103,999	6,546
35855 29	1/2 hp.....					65,139	5,142
35855 30	3/4 hp.....					24,428	2,282

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3585- --	REFRIGERATION MACHINERY—Continued				
35855 --	Condensing units, all refrigerants—Continued				
	Condensing units (except for household refrigerators)—Continued				
	As reported on Census Form MA-35M—Continued				
	Air-cooled—Continued				
	Hermetic-type—Continued				
35855 31	1 hp.....	84,588	5,777	19,332	2,577
35855 32	1.5 hp.....	45,222	4,245	14,236	2,615
35855 33	2 hp.....	39,647	4,490	12,554	3,217
35855 34	2.5 hp.....	11,692	4,639	13,134	4,398
35855 35	3 hp.....				
35855 36	4 hp.....				
35855 37	Over 4 hp. but under 15 hp.....				
	Water-cooled:	9,378	5,813	3,165	1,815
	Open-type:				
35855 38	1.5 hp. and under.....	829	184	2,515	493
35855 39	2 hp.....	618	168	1,161	349
35855 41	3 hp.....	844	291	1,640	559
35855 42, 43	4-5 hp.....	833	419	1,494	730
35855 44	7.5 hp.....	307	203	661	438
35855 45	10 hp.....	224	209	469	479
	Hermetic-type:				
35855 47	1/2 hp. and under.....	5,764	622	5,011	513
35855 49	3/4 hp.....	3,147	437	3,155	366
35855 51	1 hp.....	4,671	724	6,475	1,081
35855 52	1.5 hp.....	2,426	555	4,070	893
35855 53	2 hp.....	2,824	788	5,522	1,431
35855 54	3 hp.....	2,995	1,077	5,974	2,082
35855 55, 56	4-5 hp.....	2,713	1,352	2,958	1,452
35855 57	7.5 hp.....	865	554	1,394	1,123
35855 59	10 hp.....	681	549		
	Open-type hermetic-type:				
35855 61	15 hp.....	512	603	1,135	1,794
35855 62	20 hp.....	262	378		
35855 63	25 hp.....	219	383	437	810
35855 64	30 hp.....	227	471	447	940
35855 65	40 hp.....	259	604	439	1,121
35855 66	50 hp.....	193	561	365	1,064
35855 67	60 hp.....	171	509	193	611
35855 68	75 hp.....	72	276	90	379
35855 69	Over 75 hp.....	160	684	67	373
35855 71	Number of "open-type" units.....	669	(X)	(NA)	(X)
35855 72	Number of "hermetic-type" units.....	1,406	(X)	(NA)	(X)
35857 --	Other refrigeration and air-conditioning equipment, including soda fountain and beer dispensing equipment, total.....	(X)	302,530	(X)	195,198
35857 11	Soda fountain equipment (cooler box, fountainette, and similar equipment).....	(X)	26,375	(X)	15,708
35857 51	Beer dispensing equipment.....	(X)	3,785	(X)	6,877
35857 94	Evaporative air coolers.....	429,208	28,914	711,667	39,004
35857 96	Other refrigeration machinery and air-conditioning equipment.....	(X)	77,363	}	118,267
35857 97	Complete refrigeration systems shipped to other manufacturers for incorporation into a cabinet, vending machine, or household refrigerator.				
35857 98	Other components and accessories for air-conditioning and refrigeration equipment.....	(X)	150,690	(X)	
35857 00	Other refrigeration and air-conditioning equipment, n.s.k.....	(X)	15,403	(X)	15,342
35850 00	Refrigeration and air-conditioning equipment, n.s.k.....	(X)	46,701	(X)	31,442
3586- --	MEASURING AND DISPENSING PUMPS, TOTAL.....	(X)	121,017	(X)	88,217
	Gasoline dispensing pumps (filling station type):				
	Computing:				
35860 11	Single units.....	85,774	42,226	83,118	39,484
35860 12	Dual units <sup>17</sup> .....	11,895	9,708	6,074	5,317
35860 13	Noncomputing <sup>18</sup> .....	(X)	( <sup>19</sup> )	11,716	2,911
35860 21	Lubricating-oil outfits, including pump and tank.....	38,110	8,280	27,900	6,387
35860 31	Lubricating-oil pumps, including barrel pumps.....	387,873	8,783	208,954	5,361
35860 41	Grease pumps.....	(X)	8,805	(X)	5,518
35860 51	Grease guns.....	3,181,165	12,846	(NA)	6,338
35860 98	Other measuring and dispensing pumps.....	(X)	<sup>20</sup> 29,327	(X)	16,901
35860 00	Measuring and dispensing pumps, n.s.k.....	(X)	1,042	(X)	-

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
		(Number of units)		(Number of units)	
3589- --	SERVICE INDUSTRY MACHINES, TOTAL.....	(X)	341,517	(X)	221,987
35891 --	Commercial cooking and food warming equipment.....	(X)	106,965	(X)	73,169
	Nonelectric:				
35891 11	Commercial cooking stoves, ranges, ovens, and broilers.....	61,389	21,532	55,555	15,012
35891 29	Other commercial cooking equipment (except electric), including griddles, toasters, deep-fat fryers, coffee urns, pressure cookers-steam, etc.....	(X)	15,738	(X)	9,962
35891 31	Commercial food-warming equipment, including steam tables.....	(X)	5,174	(X)	8,975
	Electric:				
35891 61	Commercial ranges, ovens, and broilers.....	30,572	8,331	40,915	9,709
35891 63	Commercial electronic stoves and ovens.....	(X)	4,225		
35891 71	Other commercial cooking equipment, including griddles, toasters, deep fat fryers, coffeemakers, coffee urns.....	(X)	16,712	(X)	12,532
35891 81	Commercial food warming equipment, including hot food server units and steam tables.....	(X)	10,511	(X)	9,871
35891 85	Parts and accessories for commercial cooking and food warming equipment..	(X)	18,979	(X)	203,306
35891 00	Commercial cooking and food warming equipment, n.s.k.....	(X)	5,763	(X)	3,802
35892 --	Service industry machines and parts, total.....	(X)	196,701	(X)	136,086
	Water softeners:				
35892 22	Industrial.....	5,306	11,307	4,906	10,283
	Farm, household and commercial:				
35892 24	Manual.....	64,030	3,005	69,025	4,859
35892 26	Semiautomatic.....	14,653	1,805	38,245	4,957
35892 28	Automatic.....	157,827	21,395	81,162	9,862
35892 35	Floor waxing and polishing machines, commercial and industrial types....	95,468	13,588	100,372	10,439
35892 42	Floor sanding and floor scrubbing machines.....	(X)	7,570	(X)	5,198
35892 71	Dishwashing machines, commercial type.....	18,745	27,875	14,298	19,036
35892 61	Carpet sweepers.....	1,084,452	5,033	814,582	5,119
35892 91	Other industrial and commercial service machines.....	(X)	67,975	(X)	46,212
35892 93	Parts and accessories for service industry machines.....	(X)	24,049	}	20,121
35892 00	Service industry machines and parts, n.s.k.....	(X)	13,099		
35893 --	Commercial and industrial vacuum cleaners, including parts and attachments.	(X)	18,996	(X)	12,732
35893 11	Portable, including attachments and parts.....	193,215	14,772	95,550	10,345
35893 98	Central system, including parts and attachments for commercial and industrial vacuum cleaners.....	(X)	3,852	(X)	2,387
35893 00	Commercial and industrial vacuum cleaners, including parts and attachments, n.s.k.....	(X)	372	(X)	-
35890 00	Service industry machines, n.s.k.....	(X)	18,855	(X)	-
		(1,000 units)		(1,000 units)	
3599- --	MACHINE SHOP PRODUCTS, TOTAL <sup>21</sup> .....	(X)	221,685,548	(X)	1,117,684
	Carburetors, new, all types:				
35990 11	Shipped to motor vehicle manufacturers <sup>21</sup> .....	10,264	98,969	3,370	30,866
35990 15	Shipped to all other customers.....	4,027	22,389	3,463	17,360
	Pistons (machined) and piston rings, all types:				
	Pistons all types:				
	Aluminum:				
35990 21	Shipped to motor vehicle manufacturers.....	17,890	36,996	10,097	16,300
35990 25	Shipped to all other customers.....	10,125	23,336	7,052	14,091
	Other:				
35990 31	Shipped to motor vehicle manufacturers.....	537	1,642	(NA)	487
35990 35	Shipped to all other customers.....	1,354	2,335	(NA)	1,706
	Piston rings, all types:				
	Oil type:				
35990 41	Shipped to motor vehicle manufacturers.....	124,987	19,971	90,641	12,153
35990 45	Shipped to all other customers.....	51,458	16,417	44,671	13,773
	Compression type:				
35990 51	Shipped to motor vehicle manufacturers.....	400,831	44,593	197,575	22,201
35990 55	Shipped to all other customers.....	131,534	40,684	108,322	30,608

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (1,000 units)	Value (\$1,000)	Quantity (1,000 units)	Value (\$1,000)
3599- --	MACHINE SHOP PRODUCTS—Continued				
	All other machine shop products:				
	Flexible metal hose and tubing:				
35990 63	Copper and copper base-alloy.....	(X)	9,776	(X)	39,579
35990 65	Aluminum and aluminum-base alloy.....	(X)	5,494		
35990 69	Other.....	(X)	55,021		
35990 71	Metallic and semimetallic packing (excluding asbestos-metallic).....	(X)	15,864	(X)	12,519
35990 81	Metal bellows.....	(X)	14,222	(X)	9,070
	Valves (intake and exhaust only) for internal combustion engines:				
35990 91	Shipped to motor vehicles manufacturers.....	105,189	67,242	(NA)	21,982
35990 95	Shipped to all other customers.....	43,754	18,873	(NA)	19,272
35990 96	Carnival and amusement park equipment (ferris wheels, merry-go-rounds, etc.) (excluding coin-operated amusement machines).....	(X)	6,414	(X)	588,871
35990 97	Pneumatic and hydraulic cylinders.....	(X)	86,837		
35990 98	Other machine shop products (including rebuilt carburetors).....	(X)	684,520		
35990 00	Carburetors, pistons, and other machine shop products, n.s.k.....	(X)	413,953	(X)	266,846

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

<sup>1</sup>For these products, data were also collected in the census annual commodity survey program. In lieu of asking for detailed statistics on these products in the census of manufactures, respondents were asked to report only value of shipments for specified products or classes of products for which separate figures had previously been collected on the annual form. In most cases, the value figures reported in the census of manufactures for each product or class of products agreed closely with the corresponding figures reported in the annual survey. However, there were some differences between the census figures and the annual survey figures amounting generally to less than 1 percent at the industry level. These variations were due primarily to the following reasons:

- Use of different reporting periods (calendar year vs. fiscal year).
- Use of different bases for reporting value (company sales vs. factory production).
- Use of estimates in reporting data on the annual survey whereas census of manufactures figures generally represent more exact shipments figures.

<sup>2</sup>These products are primarily coffee vending machines though they may also vend hot chocolate and/or hot soup from the same cabinet.

<sup>3</sup>In 1958 data for canned beverages are included with other vending machines for beverages.

<sup>4</sup>Includes packaged milk (indoor and outdoor); milk (bulk or cup); beverage combination (hot and cold); hot beverages such as hot chocolate and/or hot soup (except canned soup) not sold in a combination machine with coffee; and package dry ingredients for mixing into beverages.

<sup>5</sup>Includes vending machines for such commodities as apples; cookies, crackers, and biscuits; popcorn, pastry; ice cream; and package chewing gum.

<sup>6</sup>Includes vending machines for such products as cosmetics and toiletries, novelties, detergents, newspapers, and stationery supplies.

<sup>7</sup>Includes automatic vending machines and parts, not specified by kind.

<sup>8</sup>Excludes coin-operated mechanisms.

<sup>9</sup>The total value of shipments of refrigeration machinery includes extensive duplication resulting from the use of products of some establishments in the industry as materials by others within the same industry.

<sup>10</sup>This product class includes on Census Form MA-35M products coded in the 35854 and 35852 groups.

<sup>11</sup>For 1963, a total of 68,631 units valued at \$33,935 thousand in the under 97,000 B.t.u./hr. category were shipped. A breakdown between "Horizontal" types and "Other" types was also obtained for units in this category. Of this total, 55,087 units valued at \$24,221 thousand represented "Horizontal" types. The corresponding figures for horizontal types under 97,999 B.t.u./hr. in 1958 were 44,809 units valued at \$17,348 thousand.

<sup>12</sup>Data for 1963 include units for household refrigerators. Such units are excluded from figures for 1958.

<sup>13</sup>Figures for compressor bodies 10 hp. and under hermetic-type motor compressors also include compressor bodies 10 hp. and under open-type compressors and (for 1958 only) 15 and 20 hp. open and hermetic types.

<sup>14</sup>Represents 20 hp. and under hermetic-type motor compressors.

<sup>15</sup>Excludes automotive air-conditioning compressors.

<sup>16</sup>No detail by horsepower is available for these units.

<sup>17</sup>Twin pumps are counted as one unit.

<sup>18</sup>Twin pumps are counted as two units.

<sup>19</sup>For 1963, data on noncomputing gasoline dispensing pumps are included with other measuring and dispensing pumps.

<sup>20</sup>Represents parts and accessories for commercial electric cooking equipment.

<sup>21</sup>The 1958 and 1963 figures are not directly comparable because of the apparent inclusion of some carburetors and valves in industry 3717, "Motor Vehicles and Parts" in 1958.

<sup>22</sup>This figure differs from comparable totals shown in other tables because of inclusion of corrections that were introduced too late for inclusion in those tables. The effect on total figures is less than 5 percent.

**TABLE 6B. Product Classes—Indexes of Production and  
Unit Value for Primary Products Shipped by  
All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
358--	Service industry machines.....1963..	200	93
	.....1958..	132	96
3581-	Automatic vending machines and parts.....1963..	189	133
	.....1958..	140	112
35811	Automatic vending machines (complete unit).....1963..	148	143
	.....1958..	122	113
35812	Coin-operated mechanisms and parts for automatic vending machines.....1963..	305	97
	.....1958..	150	112
3582-	Commercial laundry, dry cleaning, and pressing machines.....1963..	202	84
	.....1958..	122	114
3585-	Refrigeration machinery <sup>1</sup> .....1963..	208	86
	.....1958..	135	90
35851	Heat transfer equipment.....1963..	260	83
	.....1958..	146	82
35853	Commercial refrigerators and related equipment...1963..	125	100
	.....1958..	115	106
35854	Compressors and compressor units, all refrigerants.....1963..	231	77
	.....1958..	139	90
3586-	Measuring and dispensing pumps.....1963..	113	133
	.....1958..	79	138
3589-	Service industry machines <sup>2</sup> .....1963..	202	116
	.....1958..	143	112
35892	Service industry machines and parts.....1963..	203	121
	.....1958..	161	113
35893	Commercial and industrial vacuum cleaners, including parts and attachments.....1963..	386	61
	.....1958..	182	88
3599-	Miscellaneous machinery except electrical.....1963..	( <sup>3</sup> )	( <sup>3</sup> )
	.....1958..	( <sup>3</sup> )	( <sup>3</sup> )

<sup>1</sup>Adjusted to include products not specified by kind and products not shown separately below - namely, condensing units, all refrigerants (product class 35855) and other refrigeration and air-conditioning equipment, including soda fountain and beer dispensing equipment (product class 35857).

<sup>2</sup>Adjusted to include products not specified by kind and commercial cooking and food warming equipment (product class 35891).

<sup>3</sup>Not shown because comparable quantity data were not obtained for a significant portion of these products.



TABLE 6C. **Product Classes—Value Shipped by All Manufacturing Establishments:**  
**1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3581-	Automatic vending machines.....	206,562	222,324	195,191	185,111	158,653	130,850	(NA)	(NA)
35811	Automatic merchandising machines.....	164,338	218,529	194,707	184,302	153,438	110,548	74,258	74,250
35812	Coin-operated mechanisms and parts for automatic merchandising machines.....	32,757							
35810	Automatic vending machines, n.s.k.....	9,467							
			(3,795)	(484)	(809)	(5,215)	20,302	(NA)	(NA)
35820	Commercial laundry, dry cleaning, and pressing machinery and equipment.....	129,613	134,902	127,461	119,935	123,619	106,590	76,637	93,078
3585-	Refrigeration machinery <sup>2</sup> .....	2,077,006	<sup>3</sup> 2,043,788	<sup>3</sup> 1,840,078	<sup>3</sup> 1,878,944	1,720,293	1,435,091	(NA)	(NA)
35851	Heat transfer equipment <sup>4</sup> .....	1,131,167	949,735	869,699	883,044	<sup>5</sup> 768,142	715,914	(NA)	(NA)
35853	Commercial refrigeration equipment.....	253,711	287,113	249,945	261,335	269,159	240,409	201,660	227,369
35854	Compressors and compressor units, all refrigerants.....	269,359	265,714	234,607	247,475	237,114	181,821	162,991	63,371
35855	Condensing units, all refrigerants.....	73,538	102,717	97,517	108,749	104,763	70,307	85,274	111,697
35857	Other refrigeration and air-conditioning equipment, including soda fountain and beer dispensing equipment.....	302,530	<sup>3</sup> (406,951)	<sup>3</sup> (356,867)	<sup>3</sup> (358,921)	<sup>3</sup> (313,180)	195,198	(NA)	(NA)
35850	Refrigeration machinery, n.s.k.....	46,701	(31,558)	(31,443)	(19,420)	(27,935)	31,442	(NA)	(NA)
35860	Measuring and dispensing pumps.....	121,017	115,025	106,004	102,252	100,987	88,217	80,846	95,488
3589-	Service industry machines, n.e.c.....	341,517	315,951	299,127	274,570	253,025	221,987	(NA)	(NA)
35891	Commercial cooking and food warming equipment <sup>6</sup> .....	106,965	97,534	95,464	86,469	79,476	73,169	44,088	127,383
35892	Service industry machines, and parts.....	196,701	198,742	187,185	172,361	158,413	136,086	140,389	
35893	Commercial and industrial vacuum cleaners, including attachments and parts	18,996	19,675	16,478	15,740	15,136	12,732	(NA)	
35890	Service industry machines, n.e.c., n.s.k..	18,855	-	-	-	-	-	-	-
35990	Carburetors, pistons and other machine shop products.....	1,605,915	1,426,247	1,266,468	1,252,106	1,270,189	1,117,684	(NA)	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>These data represent the sum of 5-digit product class data obtained from Current Industrial Reports and the census of manufactures or the annual survey of manufactures.

<sup>3</sup>Data for product class 35857 for 1959-1962 included an undeterminate amount for automobile air conditioners. Separate information for automotive air conditioners were collected on Form MA-35M beginning in 1960 and included with data for product class 35851. Accordingly the 4-digit total figures for 1960-1962 are overstated.

<sup>4</sup>Source: Current Industrial Reports Series M35M "Air Conditioning and Refrigeration Equipment."

<sup>5</sup>Excludes automotive air conditioners for which separate data are not available.

<sup>6</sup>Parts and accessories for commercial cooking and food warming equipment are included in product class 35892 for all years except 1958 and 1963.

**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments
<b>AUTOMATIC MERCHANDISING MACHINES (35811)</b>	<b>1963<sup>1</sup></b>	<b>COMMERCIAL REFRIGERATION EQUIPMENT (35853)—Con.</b>	<b>1963<sup>1</sup></b>	<b>OTHER REFRIGERATION AND AIR-CONDITIONING EQUIPMENT, INCLUDING SODA FOUNTAIN AND BEER DISPENSING EQUIPMENT (35857)—Continued</b>	<b>1963<sup>1</sup></b>
United States, total.....	164,338	Middle Atlantic.....	59,712	East North Central.....	81,513
Northeast.....	36,932	New York.....	17,645	Ohio.....	22,998
New York.....	3,625	New Jersey.....	22,290	Indiana.....	15,196
Pennsylvania.....	4,120	Pennsylvania.....	19,777	Illinois.....	13,094
East North Central.....	48,907	East North Central.....	82,884	Michigan.....	22,985
Ohio.....	2,961	Ohio.....	22,520	Wisconsin.....	7,240
Indiana.....	2,645	Indiana.....	20,369	West North Central.....	29,268
Illinois.....	28,624	Illinois.....	6,975	Missouri.....	14,932
West North Central.....	48,112	Michigan.....	20,008	South Atlantic.....	16,499
Iowa.....	2,661	Wisconsin.....	13,012	Virginia.....	4,810
South.....	17,114	West North Central.....	49,481	North Carolina.....	8,050
Texas.....	2,797	Iowa.....	2,546	East South Central.....	10,781
West.....	13,273	Missouri.....	26,856	West South Central.....	38,387
<b>COIN-OPERATED MECHANISMS AND PARTS FOR AUTOMATIC MERCHANDISING MACHINES (35812)</b>		South Atlantic.....	16,270	Arkansas.....	2,351
United States, total.....	32,757	Maryland.....	4,989	Texas.....	33,731
Northeast.....	6,824	East South Central.....	3,851	West.....	28,182
New York.....	4,715	West South Central.....	16,840		
East North Central.....	9,908	West.....	21,960	<b>MEASURING AND DISPENSING PUMPS (35860)</b>	<b>1963<sup>1</sup> 1958</b>
Illinois.....	4,927	Washington.....	3,045	United States, total...	121,017 88,217
West North Central.....	13,721	Oregon.....	1,158	Northeast.....	31,220 15,994
South.....	1,031	California.....	16,693	New York.....	2,461 (2)
West.....	1,273	<b>COMPRESSORS AND COMPRESSOR UNITS, ALL REFRIGERANTS (35854)</b>		Pennsylvania.....	9,706 (2)
<b>HEAT TRANSFER EQUIPMENT (35851)</b>		United States, total...	269,359	East North Central.....	48,987 36,841
United States, total.....	1,158,793	Northeast.....	31,690	Ohio.....	14,461 9,169
New England.....	6,734	East North Central.....	224,933	West North Central.....	18,573 14,339
Massachusetts.....	4,162	Ohio.....	93,832	South.....	19,297 (2)
Middle Atlantic.....	340,417	South and West.....	12,736	West.....	2,940 1,952
New York.....	259,209	California.....	4,212	<b>COMMERCIAL COOKING AND FOOD WARMING EQUIPMENT (35891)</b>	<b>1963<sup>1</sup></b>
New Jersey.....	19,476	<b>CONDENSING UNITS, ALL REFRIGERANTS (35855)</b>		United States, total...	106,965
Pennsylvania.....	61,732	United States, total...	73,538	New England.....	10,452
East North Central.....	453,510	Northeast.....	18,885	Middle Atlantic.....	19,949
Ohio.....	163,351	New York.....	6,794	New York.....	8,193
Indiana.....	110,790	North Central.....	45,834	New Jersey.....	18,744
Illinois.....	38,126	Michigan.....	21,089	Pennsylvania.....	3,012
Michigan.....	82,692	South.....	7,118	East North Central.....	42,683
Wisconsin.....	58,551	Texas.....	3,133	Illinois.....	30,894
West North Central.....	91,269	West.....	1,701	West North Central.....	8,332
Minnesota.....	40,410	<b>OTHER REFRIGERATION AND AIR-CONDITIONING EQUIPMENT, INCLUDING SODA FOUNTAIN AND BEER DISPENSING EQUIPMENT (35857)</b>		Missouri.....	6,742
Missouri.....	9,300	United States, total...	302,530	South.....	11,287
South Atlantic.....	35,928	New England.....	19,604	Pacific.....	14,262
Georgia.....	4,125	Connecticut.....	16,270	California.....	12,547
Florida.....	2,398	Middle Atlantic.....	78,296	<b>SERVICE INDUSTRY MACHINES, AND PARTS (35892)</b>	
East South Central.....	86,040	New York.....	33,150	United States, total...	196,701
West South Central.....	83,308	New Jersey.....	22,007	New England.....	7,584
Texas.....	65,311	Pennsylvania.....	23,139	Massachusetts.....	5,127
Mountain.....	11,417			Connecticut.....	2,361
Pacific.....	50,170				
<b>COMMERCIAL REFRIGERATION EQUIPMENT (35853)</b>					
United States, total.....	253,711				
New England.....	2,713				
Massachusetts.....	2,713				

See footnotes at end of table.



TABLE 6D. **Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued**

Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments
	1963 <sup>1</sup>		1963 <sup>1</sup>		1963 <sup>1</sup>
SERVICE INDUSTRY MACHINES, AND PARTS (35892)—Con.		SERVICE INDUSTRY MACHINES, AND PARTS (35892)—Con.		COMMERCIAL AND INDUSTRIAL VACUUM CLEANERS, INCLUDING ATTACHMENTS AND PARTS (35893)	
Middle Atlantic.....	38,730	West North Central.....	26,615	United States, total...	18,996
New York.....	8,767	Minnesota.....	18,074		
New Jersey.....	9,582	South.....	7,547	Northeast.....	6,230
Pennsylvania.....	20,381	Florida.....	1,713	New Jersey.....	1,430
East North Central.....	103,652	Mountain.....	2,686	North Central.....	9,408
Ohio.....	35,477	Colorado.....	2,516	Ohio.....	1,461
Indiana.....	2,760	Pacific.....	9,887	Illinois.....	3,974
Illinois.....	41,750	California.....	9,469	South and West.....	3,358
Michigan.....	14,569				
Wisconsin.....	9,096				

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million reported.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 35811, Massachusetts, Connecticut, New Jersey, Michigan, Wisconsin, Minnesota, Missouri, Maryland, West Virginia, Tennessee, California; 35812, Wisconsin, Missouri, California; 35851, Connecticut, Iowa, Kansas, Maryland, Virginia, North Carolina, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Oklahoma, Texas, Arizona, Utah, California; 35853, Minnesota, Kansas, South Carolina, Georgia, Tennessee, Alabama, Mississippi, Arkansas, Texas; 35854, Connecticut, New York, New Jersey, Pennsylvania, Indiana, Illinois, Michigan, Wisconsin, Kentucky; 35855, Connecticut, New Jersey, Pennsylvania, Ohio, Indiana, Wisconsin, Missouri, Georgia, California; 35857, Massachusetts, Rhode Island, Minnesota, Kansas, Maryland, Florida, Kentucky, Tennessee, Oklahoma, Arizona, California; 35860, Vermont, Massachusetts, New Jersey, Indiana, Illinois, Michigan, Minnesota, Iowa, Missouri, Maryland, Tennessee, Texas, Colorado, California; 35891, New Hampshire, Vermont, Massachusetts, Ohio, Indiana, Maryland, Kentucky, Louisiana, Oregon; 35892, Connecticut, Iowa, Missouri, Kansas, North Carolina, Kentucky; 35893, Massachusetts, Connecticut, Michigan, Minnesota, South Carolina, California.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958			
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)		
			INDUSTRY 3581.—AUTOMATIC VENDING MACHINES					
	Materials, parts, containers, and supplies, total.....		(X)	108,790	(X)	68,165		
	Mill shapes and forms (except castings):							
	Carbon steel:							
331011	Bars and bar shapes.....	Short tons.....	1,362	338	387	120		
331012	Sheet and strip.....	..do.....	58,009	10,099	29,517	6,202		
331013	Plates.....	..do.....	189	56	726	221		
331015	Structural shapes.....	..do.....	241	60				
331019	All other carbon steel mill shapes and forms.....	..do.....	582	169				
331020	Alloy steel (except stainless).....	..do.....	295	238	1,217	914		
331031	Stainless steel mill shapes and forms.....	..do.....	2,691	3,121				
	Copper and copper-base alloy:							
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	647	395	(NA)	(NA)		
335790	Insulated wire and cable.....	1,000 lbs. copper content.	503	318	(NA)	(NA)		
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	158	117	(NA)	(NA)		
335123	Plate, sheet, and strip (including military cups and discs)....	..do.....			(NA)	(NA)		
335127	Pipe and tube.....	..do.....			(NA)	(NA)		
	Aluminum and aluminum-base alloy:							
335202	Sheet, plate and foil.....	..do.....	730	408	994	749		
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	..do.....	544	470				
335209	All other aluminum mill shapes and forms (wire rolled rod and bar, powder, welded tubing, etc.).....	..do.....						
333401	Aluminum and aluminum-base alloy refinery shapes (pig, ingot, shot, slugs, etc.).....		(D)	(D)	(NA)	(NA)		
	Castings (rough and semifinished): <sup>1</sup>							
332011	Iron (gray and malleable).....		(D)	(D)	(NA)	(NA)		
332300	Steel.....		(D)	(D)	(NA)	623		
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	683	435	757	528		
336200	Copper and copper-base alloy.....	..do.....	96	80	(NA)	(NA)		
	Electric motors and generators: <sup>1</sup>							
362110	Fractional horsepower electric motors (under 1 hp.) timing motors, synchronous and subsynchronous.....	Number.....	957,509	3,382	54,040	254		
362115	Other fractional horsepower electric motors (excluding timing motors).....	..do.....	174,401	1,717	220,157	2,011		
362120	Integral horsepower motors and generators (1 hp. and over).....		(D)	(D)	(NA)	(NA)		
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	67,464	(X)	51,378		
976000	Materials, containers, supplies, n.s.k. <sup>2</sup> .....		(X)	19,724	(X)	5,165		
			INDUSTRY 3582.—COMMERCIAL LAUNDRY EQUIPMENT					
	Materials, parts, containers, and supplies, total.....		(X)	57,531	(X)	45,745		
	Mill shapes and forms (except castings):							
	Carbon steel:							
331011	Bars and bar shapes.....	Short tons.....	5,173	1,055	4,347	963		
331012	Sheet and strip.....	..do.....	14,255	2,341	29,688	5,012		
331013	Plates.....	..do.....	4,687	898	2,416	606		
331015	Structural shapes.....	..do.....	1,695	538	1,200	678		
331019	All other carbon steel mill shapes and forms.....	..do.....	2,243	711	869	355		
331020	Alloy steel (except stainless).....	..do.....	2,406	2,792	385	489		
331031	Stainless steel mill shapes and forms.....	..do.....			3,674	4,858		
	Copper and copper-base alloy:							
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	-	-	59	66		
335790	Industrial wire and cable.....	1,000 lbs. copper content.	98	59				
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	121	100				
335123	Plate, sheet, and strip (including military cups and discs)....	..do.....		392	332			
335127	Pipe and tube.....	..do.....						
	Aluminum and aluminum-base alloy:							
335202	Sheet, plate, and foil.....	..do.....	522	369	294	263		
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	..do.....	141	116				
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	..do.....	28	22				
	Castings (rough and semifinished): <sup>1</sup>							
332011	Iron (gray and malleable).....	Short tons.....	11,723	3,313	8,301	2,989		
332300	Steel.....	..do.....	389	255	253	213		
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	616	607	493	512		
336200	Copper and copper-base alloy.....	..do.....	624	399	411	332		

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
INDUSTRY 3582.—COMMERCIAL LAUNDRY EQUIPMENT—Continued						
362110	Electric motors and generators: <sup>1</sup> Fractional horsepower electric motors (under 1 hp.) timing motors, synchronous and subsynchronous.....	Number.....	58,824	653	11,345	143
362115	Other fractional horsepower electric motors (excluding timing motors).....	..do.....	68,389	1,365	59,426	1,898
362120	Integral horsepower motors and generators (1 hp. and over).....	..do.....	19,093	2,939	12,984	1,823
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	33,295	(X)	14,741
976000	Materials, containers, and supplies, n.s.k. <sup>2</sup> .....	.....	(X)	5,401	(X)	9,470
INDUSTRY 3585.—REFRIGERATION MACHINERY						
	Materials, parts, containers, and supplies, total.....	.....	(X)	<sup>3</sup> 958,092	(X)	<sup>3</sup> 716,165
	Mill shapes and forms (except castings): Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	27,134	5,080	20,144	3,959
331012	Sheet and strip.....	..do.....	347,565	60,963	256,726	42,729
331013	Plates.....	..do.....	44,339	7,035	20,185	3,332
331015	Structural shapes.....	..do.....	8,362	1,617	9,352	1,777
331017	Wire and wire products.....	..do.....	2,381	977	4,817	2,031
331019	All other carbon steel mill shapes and forms.....	..do.....	14,112	3,532	18,033	5,200
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	1,065	353	1,175	438
331029	All other alloy steel mill shapes and forms.....	..do.....	5,079	1,752	5,338	2,264
331031	Stainless steel.....	..do.....	14,012	16,113	10,876	14,822
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	1,359	1,136	3,253	1,794
335790	Insulated wire and cable.....	1,000 lbs. copper content.				
335102	Rod, bar, and mechanical wire including extruded and/or drawn shapes.....	1,000 lbs.....	2,352	1,250	58,058	43,885
335123	Plate, sheet, and strip (including military cups and discs)....	..do.....	11,312	6,297		
335127	Pipe and tube.....	..do.....	80,482	49,519		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	..do.....	65,545	24,765	41,326	20,688
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	..do.....	3,926	2,164	15,057	7,371
335209	All other aluminum mill shapes and forms, (wire, rolled rod and bar, powder, welded tubing, etc.).....	..do.....	2,450	954		
	Castings (rough and semifinished): <sup>1</sup>					
332011	Iron (gray and malleable).....	Short tons.....	91,869	31,059	98,881	25,158
332300	Steel.....	..do.....	17,141	7,720	5,754	1,871
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	8,517	5,249	7,750	3,433
336200	Copper and copper-base alloy.....	..do.....	6,755	3,920	2,446	1,793
339100	Iron and steel forgings <sup>1</sup> .....	Short tons.....	5,490	2,861	3,238	1,382
	Electric motors and generators: <sup>1</sup>					
362110	Fractional horsepower electric motors (under 1 hp.): Timing motors, synchronous and subsynchronous.....	Number.....	(NA)	5,302	713,523	6,952
362115	Fractional horsepower electric motors (including timing motors)	..do.....	8,435,089	61,945	5,744,837	49,852
362120	Integral horsepower motors and generators (1 hp. and over).....	..do.....	3,366,782	68,694	1,865,455	52,474
	Bearings:					
356218	Ball.....	.....	(X)	2,716	(NA)	(NA)
356228	Roller.....	.....	(X)	356	(NA)	(NA)
260091	Paper and paperboard containers.....	.....	(X)	7,883	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	504,108	(X)	388,132
976000	Materials, containers, supplies, n.s.k. <sup>2</sup> .....	.....	(X)	72,772	(X)	33,692
INDUSTRY 3586.—MEASURING AND DISPENSING PUMPS						
	Materials, parts, containers and supplies, total.....	.....	(X)	59,780	(X)	47,026
	Mill shapes and forms (except castings): Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	8,169	2,154	(NA)	(NA)
331012	Sheet and strip.....	..do.....	13,478	2,229	(NA)	(NA)
331013	Plates.....	..do.....	1,137	148	(NA)	(NA)
331015	Structural shapes.....	..do.....	1,430	180	(NA)	(NA)
331019	All other carbon steel mill shapes and forms.....	..do.....	1,609	485	(NA)	(NA)

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3586.—MEASURING AND DISPENSING PUMPS—Con.			
	Mill shapes and forms (except castings)—Continued					
331021	Alloy steel (except stainless):					
331029	Bars and bar shapes.....	Short tons.....	70	25	(NA)	(NA)
	All other alloy steel.....	..do.....	33	32	(NA)	(NA)
331031	Stainless steel.....	..do.....	720	1,118	(NA)	(NA)
335790	Copper and copper-base alloy:					
	Insulated wire and cable.....	1,000 lbs. copper content.	63	55	27	32
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	1,029	547	846	507
335123	Plate, sheet, and strip (including military cups and discs)....	..do.....	174	167		
335127	Pipe and tube.....	..do.....	277	149		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	..do.....	232	156	104	80
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	..do.....	445	434	200	169
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	..do.....	54	36		
333401	Aluminum and aluminum-base refinery shapes.....	.....	(D)	(D)	(NA)	(NA)
999811	Iron and steel scrap (excluding home scrap).....	.....	(D)	(D)	(NA)	(NA)
	Castings (rough and semifinished): <sup>4</sup>					
332011	Iron (gray and malleable).....	..do.....	8,831	2,869	10,164	2,827
332300	Steel.....	..do.....	(D)	(D)	(NA)	(NA)
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	2,692	1,977	1,294	1,038
336200	Copper and copper-base alloy.....	..do.....	513	477	558	368
339100	Iron and steel forgings <sup>1</sup> .....	.....	(D)	(D)	(NA)	(NA)
351901	Gasoline and other carburetor engines <sup>1</sup> .....	Number.....	1,002	192	(NA)	(NA)
	Electric motors and generators <sup>4</sup> :					
362115	Fractional horsepower electric motors (under 1 hp.) (excluding timing motors).....	..do.....	121,071	3,099	99,369	3,103
362120	Integral horsepower motors and generators (1 hp. and over).....	..do.....	2,645	248	(NA)	(NA)
	Bearings:					
356218	Ball.....	.....	(X)	192	(X)	(NA)
356228	Roller.....	.....	(X)	147	(X)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	40,211	(X)	37,904
976000	Materials, containers, supplies, n.s.k.....	.....	(X)	2,453	(X)	998
			INDUSTRY 3589.—SERVICE INDUSTRY MACHINES, N.E.C. <sup>5</sup>			
	Materials, parts, containers and supplies, total.....	.....	(X)	150,797	(X)	95,601
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	4,141	1,259	2,111	492
331012	Sheet and strip.....	..do.....	27,402	4,296	19,816	3,924
331013	Plates.....	..do.....	2,354	555	2,416	498
331015	Structural shapes.....	..do.....	1,491	301	872	170
331019	All other carbon steel mill shapes and forms.....	..do.....	2,997	606	1,598	581
331020	Alloy steel (except stainless).....	..do.....	1,931	1,360	360	309
331031	Stainless steel mill shapes and forms.....	..do.....	8,759	9,924	5,364	7,104
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	405	359	109	74
335790	Insulated wire and cable.....	1,000 lbs. copper content.			111	183
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	945	651	620	426
335123	Plate, sheet, and strip (including military cups and discs)....	..do.....	150	90		
335127	Pipe and tube.....	..do.....	546	406		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	..do.....	962	596	1,003	695
335205	Extruded shapes, (including extruded rod, bar, pipe, tube etc.)	..do.....	305	307	251	115
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	..do.....	98	91		
333401	Aluminum and aluminum-base alloy refinery shapes (pig, ingot, shot, slugs, etc.).....	Short tons.....	128	78	(NA)	(NA)
999808	Aluminum and aluminum-base alloy scrap (exclude home scrap).....	..do.....	(D)	(D)	(NA)	(NA)

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3589.—SERVICE INDUSTRY MACHINES, N.E.C. <sup>5</sup> —Con.			
332011	Castings (rough and semifinished): <sup>4</sup>					
332300	Iron (gray and malleable).....	Short tons.....	10,118	4,262	6,253	2,591
336100	Steel.....	.....do.....	1,642	736	612	360
336200	Aluminum and aluminum-base alloy.....	1,000 lbs.....	5,730	4,226	2,030	1,616
	Copper and copper-base alloy.....	.....do.....	1,278	1,016	1,218	849
362110	Electric motors and generators: <sup>4</sup>					
	Fractional horsepower electric motors (under 1 hp.) timing motors, synchronous and subsynchronous.....	Number.....	68,161	1,116	57,001	694
362115	Other fractional horsepower electric motors (excluding timing motors).....	.....do.....	244,293	3,439	123,203	2,400
362120	Integral horsepower motors and generators (1 hp. and over).....	.....do.....	35,113	2,303	34,229	2,045
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	85,788	(X)	53,985
976000	Materials, containers, and supplies, n.s.k. <sup>2</sup> .....	.....	(X)	27,032	(X)	16,490
			INDUSTRY 3599.—MISCELLANEOUS MACHINERY			
	Materials, parts, containers, and supplies, total.....	.....	(X)	528,661	(X)	427,424
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	103,349	22,256	77,276	14,522
331012	Sheet and strip.....	.....do.....	61,301	10,672	36,873	8,168
331013	Plates.....	.....do.....	36,974	6,317	32,623	5,447
331015	Structural shapes.....	.....do.....	23,395	4,186	19,742	2,922
331017	Wire and wire products.....	.....do.....	5,206	2,723	4,813	1,936
331019	All other carbon steel mill shapes and forms.....	.....do.....	30,958	7,190	11,921	3,634
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	.....do.....	23,795	6,363	22,187	6,384
331029	All other alloy steel mill shapes and forms.....	.....do.....	10,124	6,079	4,448	2,235
331031	Stainless steel.....	.....do.....	12,039	17,782	11,125	13,149
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	137	105	472	297
335790	Insulated wire and cable.....	1,000 lbs. copper content.	196	264	732	540
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	6,142	3,223	27,796	13,366
335123	Plate, sheet, and strip (including military cups and discs)....	.....do.....	3,178	2,089		
335127	Pipe and tube.....	.....do.....	6,011	3,547		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	.....do.....	5,512	3,483	8,183	5,518
335205	Extruded shapes, including rod, bar, pipe, tube, etc.....	.....do.....	6,711	5,136		
335209	All other aluminum mill shapes and forms (wire, rolled rod, and bar, powder, welded tubing, etc.).....	.....do.....	11,942	6,008		
332011	Castings (rough and semifinished): <sup>4</sup>					
332300	Iron (gray and malleable).....	Short tons.....	54,955	22,099	45,036	17,939
336100	Steel.....	.....do.....	16,340	9,568	13,977	9,078
336200	Aluminum and aluminum-base alloy.....	1,000 lbs.....	23,016	15,326	22,885	12,887
	Copper and copper-base alloy.....	.....do.....	2,760	2,389	5,254	2,844
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	181,272	(X)	172,372
976000	Materials, containers, and supplies, n.s.k. <sup>2</sup> .....	.....	(X)	190,584	(X)	128,603

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>No data are available for the quantities of castings, electric motors and generators, iron and steel forgings, and gasoline engines produced and consumed in finished products in the same plant except for industry 3585 which produced for such consumption 5,477 short tons of iron castings in 1958.

<sup>2</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

<sup>3</sup>Includes extensive duplication because the products of some establishments in the industry are consumed as materials by other establishments in the same industry.

Footnotes continued on next page.

TABLE 7A. **Materials by Kind: 1963 and 1958**—Continued

Footnotes for Table 7A-35G-Continued

<sup>4</sup>In addition the following quantities were produced and consumed into products at the same establishment:

Code	Item	Unit of measure	INDUSTRY			
			3586	3589	3599	
			1963	1963	1963	1958
	Castings (rough and semifinished):					
332011	Iron (gray and malleable).....	Short tons..	(NA)	1,002	7,723	7,628
332300	Steel.....	...do.....	(NA)	-	931	(NA)
336100	Aluminum and aluminum-base alloy.....	1,000 lbs...	(D)	(D)	2,905	(NA)
336200	Copper and copper-base alloy.....	...do.....	(D)	(D)	3,230	1,045
	Electric motors and generators:					
	Fractional horsepower electric motors (under 1 hp.):					
362110	Timing motors, synchronous and subsynchronous.....	Number.....	-	(D)	(NA)	(NA)
362115	Other fractional horsepower electric motors (excluding timing motors).....	...do.....	-	8,666	(NA)	(NA)
362120	Integral horsepower motors and generators (1 hp. and over)	...do.....	-	(D)	(NA)	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>5</sup>Data for 1958 does not include materials consumed by establishments primarily producing industrial and commercial vacuum cleaners. Such establishments consumed \$5,506 thousand of materials, parts, containers, and supplies.



TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

	Automatic vending machines (SIC 3581)	Commercial laundry equipment (SIC 3582)	Refrigeration machinery (SIC 3585)	Measuring and dispensing pumps (SIC 3586)	Service industry machines, n.e.c. (SIC 3589)	Miscel- laneous machinery (SIC 3599)
Total cost of purchased fuels and electric energy.....\$1,000..	1,993	799	11,681	847	1,979	22,970
Total cost of purchased fuels.....do....	946	337	4,613	341	845	7,935
Bituminous coal, lignite, and anthracite:						
Quantity.....1,000 short tons..	21	(S)	114	(S)	4	33
Cost.....\$1,000..	220	(S)	857	(S)	40	287
Coke and breeze:						
Quantity.....1,000 short tons..	(S)	-	(S)	-	-	6
Cost.....\$1,000..	(S)	-	(S)	-	-	146
Fuel oil (distillate and residual):						
Quantity.....1,000 barrels of 42 gallons..	24	(S)	234	46	81	398
Cost.....\$1,000..	106	(S)	818	160	341	1,616
Gas (natural, manufactured, still, blast furnace, and coke oven):						
Quantity.....million cu.ft..	628	(S)	4,854	235	459	4,602
Cost.....\$1,000..	401	(S)	2,515	130	365	2,961
Other fuels.....do....	(S)	(S)	(S)	(S)	99	2,925
Electric energy:						
Purchased:						
Quantity.....million kw.-hrs..	68	27	539	31	58	826
Cost.....\$1,000..	1,047	462	7,068	506	1,134	15,035
Generated less sold.....million kw.-hrs..	-	(S)	-	-	-	(S)
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	42	25	340	29	42	857
Prime movers, total.....do....	2	5	36	(Z)	1	43
Driving generators.....do....	-	3	5	-	(Z)	13
Not driving generators.....do....	2	2	31	(Z)	1	30
Electric motors, total.....do....	40	23	304	29	40	816
Driven by purchased energy.....do....	40	19	304	29	40	815
Driven by energy generated at establishment.....do....	-	4	-	-	-	1
Aggregate horsepower per 100 production workers.....	443	578	760	731	423	749

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Appendix A for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3581-	AUTOMATIC VENDING MACHINES										
	Entire industry.....	158	11,672	64,791	8,442	16,790	40,427	121,365	116,908	238,000	3,479
	Establishments with--										
	90% or more specialization..	128	7,194	38,989	5,003	9,757	22,792	69,107	71,550	139,798	2,474
	75-89% specialization.....	9	1,234	5,942	880	1,702	3,524	11,051	10,190	21,427	208
35811	Automatic merchandising machines (primary product class of estab.)	79	9,068	51,919	6,564	13,104	32,264	99,275	101,087	200,111	2,484
	Establishments with--										
	90% or more specialization....	46	4,006	23,106	2,714	5,193	12,744	43,540	51,418	94,078	1,626
	75-89% specialization.....	12	1,584	8,262	1,205	2,458	5,592	14,595	12,591	27,532	210
35812	Coin-operated mechanisms and parts for automatic merchandising machines (primary product class of estab.).....	22	1,863	10124	1,335	2,666	6,302	16,757	11,966	28,655	522
3585-	REFRIGERATION MACHINERY										
	Entire industry.....	698	72,330	432,583	50,676	101,231	268,304	892,686	1,059,887	1,928,001	33,471
	Establishments with--										
	90% or more specialization..	567	47,223	281,183	33,790	67,656	176,841	570,350	745,187	1,298,796	20,171
	75-89% specialization.....	46	10,653	63,043	7,385	14,786	39,301	131,519	157,305	284,699	6,197
35851	Heat transfer equipment (primary product class of estab.).....	134	38,334	241,868	26,200	52,957	145,640	542,789	608,500	1,129,031	20,629
	Establishments with--										
	90% or more specialization....	68	7,946	49,177	5,990	12,259	30,955	104,871	143,800	243,613	3,426
	75-89% specialization.....	27	12,351	79,924	8,270	16,683	47,706	186,088	242,016	418,982	7,641
35853	Commercial refrigeration equipment (primary product class of estab.).....	164	13,789	79,727	9,418	18,844	47,307	126,830	149,102	275,225	5,001
	Establishments with--										
	90% or more specialization....	102	5,308	28,808	3,998	7,837	17,887	50,315	59,918	108,125	2,124
	75-89% specialization.....	30	4,197	27,071	2,556	5,167	14,769	41,401	46,595	89,530	1,028
35854	Compressors and compressor units, all refrigerants (primary product class of estab.).....	14	6,329	38,241	5,223	9,901	29,533	63,999	147,421	210,922	1,840
35855	Condensing units, all refrigerants (primary product class of estab.)	10	323	1,743	257	507	1,203	3,081	5,047	8,228	453
	Establishments with--										
	90% or more specialization....	6	183	1,088	153	296	798	1,681	2,107	3,840	(D)
35857	Other refrigeration and air-conditioning equipment, including soda fountain and beer dispensing equipment (primary product class of estab.).....	203	9,554	51,791	6,770	13,565	31,241	108,360	106,938	216,508	3,243
	Establishments with--										
	90% or more specialization....	155	4,619	25,860	3,050	6,069	13,861	55,466	54,639	112,869	1,515
3586-	MEASURING AND DISPENSING PUMPS										
	Entire industry.....	43	6,768	41,732	4,499	8,913	23,155	91,713	71,213	159,487	2,604
	Establishments with--										
	90% or more specialization..	31	2,332	14,300	1,646	3,277	7,976	28,626	28,783	56,948	1,277
3589-	SERVICE INDUSTRY MACHINES, N.E.C.										
	Entire industry.....	506	15,257	96,834	9,524	19,423	51,279	192,379	185,121	378,300	5,278
	Establishments with--										
	90% or more specialization..	432	9,508	59,719	5,943	12,250	31,172	128,522	123,778	250,256	3,451
	75-89% specialization.....	15	918	5,713	605	1,233	3,059	9,063	9,189	18,440	159
35891	Commercial cooking and food warming equipment (primary product class of estab.).....	108	5,675	35,424	4,011	8,072	21,835	68,426	58,335	126,797	1,587
	Establishments with--										
	90% or more specialization....	81	2,874	17,629	2,088	4,219	11,283	34,831	31,459	65,770	544
	75-89% specialization.....	7	273	1,682	199	409	1,102	3,087	3,200	6,380	50

See footnotes at end of table.



TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3589-	SERVICE INDUSTRY MACHINES, N.E.C.--Continued										
35892	Service industry machines and parts (primary product class of estab.).....	234	7,336	47,732	4,037	8,245	21,399	100,261	101,480	202,851	3,002
	Establishments with--										
	90% or more specialization....	188	4,473	28,782	2,545	5,294	13,559	67,218	62,865	129,257	1,875
	75-89% specialization.....	17	901	6,641	442	866	2,168	11,284	12,107	23,093	363
35893	Commercial and industrial vacuum cleaners, including attachments and parts (primary products class of estab.).....	19	637	4,072	428	898	1,975	6,879	8,589	15,398	169
	Establishments with--										
	90% or more specialization....	8	133	862	79	158	395	1,692	1,929	3,614	37

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
INDUSTRY 3581.--AUTOMATIC VENDING MACHINES								
Ferrous foundry.....	1	-	-	1	(D)	-	-	(D)
Nonferrous die casting.....	5	3	2	-	32	(D)	(D)	-
Electroplating and other plating.....	7	1	4	2	86	(D)	(D)	(D)
Heat treating of metals.....	5	4	1	-	20	(D)	(D)	-
Automatic screw machine department.....	8	4	3	1	58	8	(D)	(D)
Machine shop.....	32	15	12	5	283	40	93	150
Tool and die shop.....	33	17	12	4	243	36	92	115
Foundry pattern shop.....	5	4	1	-	13	(D)	(D)	-
Plate or structural fabrication.....	5	3	1	1	73	(D)	(D)	(D)
Stamping, blanking and forming of metals.....	47	10	20	17	1,246	19	225	1,002
Painting, lacquering and enameling on metals.....	37	21	10	6	319	40	93	186
INDUSTRY 3582.--COMMERCIAL LAUNDRY EQUIPMENT								
Electroplating and other plating.....	4	4	-	-	7	7	-	-
Galvanizing and other hot dip coating.....	1	1	-	-	(D)	(D)	-	-
Heat treating of metals.....	4	3	1	-	11	(D)	(D)	-
Automatic screw machine department.....	1	1	-	-	(D)	(D)	-	-
Machine shop.....	44	15	17	12	1,547	33	160	1,354
Tool and die shop.....	16	11	5	-	68	25	43	-
Foundry pattern shop.....	1	-	1	-	(D)	-	(D)	-
Plate or structural fabrication.....	19	8	6	5	242	23	51	168
Stamping, blanking and forming of metals.....	29	11	13	5	319	18	118	183
Painting, lacquering and enameling on metals.....	44	35	9	-	134	60	74	-
INDUSTRY 3585.--REFRIGERATION MACHINERY								
Ferrous foundry.....	5	3	-	2	(D)	(D)	-	(D)
Nonferrous foundry(except die casting).....	7	4	2	1	57	5	(D)	(D)
Electroplating and other plating.....	13	11	2	-	35	(D)	(D)	-
Galvanizing and other hot dip coating.....	7	6	1	-	18	(D)	(D)	-
Heat treating of metals.....	13	11	2	-	30	(D)	(D)	-
Automatic screw machine department.....	16	11	4	1	83	19	(D)	(D)
Machine shop.....	164	73	56	35	5,120	118	470	4,532
Tool and die shop.....	93	57	25	11	804	102	239	463
Foundry pattern shop.....	10	8	2	-	25	(D)	(D)	-
Plate or structural fabrication.....	77	34	25	18	1,666	64	221	1,381
Stamping, blanking and forming of metals.....	220	90	59	71	5,046	157	608	4,281
Painting, lacquering and enameling on metals.....	226	156	49	21	1,944	225	388	1,331
Assembly of product.....	281	78	86	117	13,959	141	864	12,954
Shipping department, including packing and crating...	258	167	69	22	1,744	266	633	845
INDUSTRY 3586.--MEASURING AND DISPENSING PUMPS								
Galvanizing and other hot dip coating.....	2	1	1	-	(D)	(D)	(D)	-
Heat treating of metals.....	7	5	2	-	20	(D)	(D)	-
Automatic screw machine department.....	10	4	4	2	174	11	(D)	(D)
Machine shop.....	27	7	8	12	955	15	74	866
Tool and die shop.....	11	-	8	3	157	-	71	86
Foundry pattern shop.....	3	3	-	-	6	6	-	-
Plate or structural fabrication.....	3	1	1	1	(D)	(D)	(D)	(D)
Stamping, blanking and forming of metals.....	15	3	4	8	366	6	44	316
Painting, lacquering and enameling on metals.....	20	9	11	-	119	13	106	-
Assembly of product.....	25	7	5	13	1,161	14	52	1,095
INDUSTRY 3589.--SERVICE INDUSTRY MACHINES, N.E.C.								
Ferrous foundry.....	2	-	1	1	(D)	-	(D)	(D)
Nonferrous foundry (except die casting).....	5	5	-	-	7	7	-	-
Forging-presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	2	2	-	-	(D)	(D)	-	-
Electroplating and other plating.....	7	6	1	-	23	(D)	(D)	-
Heat treating of metals.....	8	7	1	-	17	(D)	(D)	-
Automatic screw machine department.....	9	8	1	-	24	(D)	(D)	-
Machine shop.....	94	44	36	14	919	81	328	510
Tool and die shop.....	33	22	11	-	104	36	68	-
Foundry pattern shop.....	8	6	2	-	22	(D)	(D)	-
Plate or structural fabrication.....	45	19	14	12	485	37	111	337
Stamping, blanking and forming of metals.....	80	40	27	13	831	74	222	535
Painting, lacquering and enameling on metals.....	89	81	8	-	191	121	70	-

See footnotes at end of table.



TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963—Continued

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3599.--MISCELLANEOUS MACHINERY							
Ferrous foundry.....	44	18	12	14	951	25	105	821
Nonferrous foundry (except die casting).....	41	24	10	7	670	37	104	529
Nonferrous die casting.....	20	14	2	4	200	(D)	(D)	156
Forging-presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	39	29	8	2	179	42	(D)	(D)
Electroplating and other plating.....	76	53	18	5	412	94	148	170
Heat treating of metals.....	133	110	19	4	424	150	161	113
Automatic screw machines department.....	293	212	72	9	1,302	375	632	295
Machine shop.....	3,308	969	1,724	615	47,775	1,668	16,651	29,456
Tool and die shop.....	499	312	154	33	3,339	542	1,387	1,410
Foundry pattern shop.....	54	48	5	1	147	71	(D)	(D)
Plate or structural fabrication.....	431	264	145	22	2,316	425	1,213	678
Stamping, blanking and forming of metals.....	444	328	99	17	2,035	458	885	692
Painting, lacquering and enameling on metals.....	299	273	25	1	542	332	(D)	(D)

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below.

Item	Industry					
	3581	3582	3585	3586	3589	3599
Total number of establishments in the industry.....	158	115	698	43	506	12,090
Number of establishments which reported one or more of the specified operations..	61	57	351	32	182	3,834
Percent of industry production workers in these establishments.....	85-90	85-90	90-95	95-100	75-80	70-75
Number of establishments which reported "none" of the operations apply.....	10	5	33	1	29	251
Percent of industry production workers in these establishments.....	0-5	0-5	0-5	0-5	0-5	0-5
Percent of industry production workers in establishments which completed metalworking operations inquiry.....	85-90	85-90	90-95	95-100	80-85	70-75

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.

## Electrical Machinery

- 36A Electrical transmission, distribution, and industrial apparatus
- 36B Household appliances
- 36C Electric lighting and wiring equipment
- 36D Communication equipment, including radio and TV, and electron components and accessories
- 36E Miscellaneous electrical machinery, equipment and supplies

This major group covers establishments primarily engaged in manufacturing machinery, apparatus and supplies for the generation, storage, transmission, transformation, and utilization of electrical energy.

A number of products which are sometimes considered "as belonging" in electrical equipment are classified in other major groups in the 1957 edition of the Standard Industrial Classification Manual in use for 1963. For example, machinery or equipment powered by built-in or detachable electric motors, such as machine tools and other metalworking equipment, commercial laundry and dry cleaning equipment, industrial vacuum cleaners, and office and store machines are classified in Major Group 35, Machinery, Except Electrical. Establishments primarily engaged in producing glass insulators, glass blanks for bulbs, and porcelain electrical supplies are classified in Major Group 32; those producing electric furnaces and ovens, turbo-generators and gas welding apparatus in Major Group 35; and those making automatic temperature controls in Major Group 38.

Industries included in Major Group 36 are typically defined in terms of products and may include both electrical and electronic equipment. Industry groups 365, 366, and 367 include the bulk of electronic equipment in this major group, i.e., radios, television sets, electron tubes, etc., but they also encompass some communications equipment other than electronic. Both electrical and electronic testing equipment are included in industry 3611, Electric Measuring Instruments. Most of the other industries in

Major Group 36 include products generally defined as electrical rather than electronic. Electronic components are frequently produced and consumed at the same location by establishments classified in this major group. Thus, there are (1) plants, solely engaged in producing electronic components, (2) plants producing electronic components and assembling them into finished products, and (3) plants which assemble components produced elsewhere either in other plants of the same company or by other companies. Other types of components and equipment in Major Group 36 such as motors, generators, and motor-generator sets are not uncommonly produced for incorporation into other products made in the same plant.

Products included in Major Group 36 consist of equipment and apparatus for industrial or commercial use as well as goods for household consumption. For example, group 364 includes such consumer durable goods as electric lamps, lighting fixtures, and wiring devices and supplies, as well as similar products for commercial or industrial use. Group 363 consists of household electric appliances such as ranges, ovens, water heaters, fans and small electric appliances, household refrigerators and freezers, household laundry equipment, sewing machines, and vacuum cleaners.

Data on selected materials consumed (principally the metal items) by each of the 4-digit industries are shown in the respective table 7A's. The number of establishments engaged in some of the more important metalworking operations and the number of employees work-



ing in each operation are shown in table 9 for the 4-digit industries. The materials and metalworking operations shown in tables 7A and 9 do not represent, of course, a complete list or, for many industries in this group, even the most important ones. There are a number of significant activities such as assembly, sub-assembly, welding, etc., which are not covered in all instances. Although the production processes in this area adhere to a general pattern of metalworking and fabricating operations (e.g., machine shop, tool and die room, etc.), there are substantial variations in the numbers and types of processes performed by an individual establishment as well as from industry

to industry. Within many of these industries establishments typically purchase mill shapes and castings and carry out the entire fabricating of the metal until it emerges as a finished product. In other industries, however, such as radio and television receiving sets, establishments may be primarily engaged in assembling component parts products by other companies or other plants of the same company. Also, not all industries consume significant amounts of metals or engage in metalworking operations, e.g., Carbon and Graphite Products (industry 3624), Electric Lamps (industry 364 ), Phonograph Records (industry 3652), and Batteries (industries 369 and 3692).

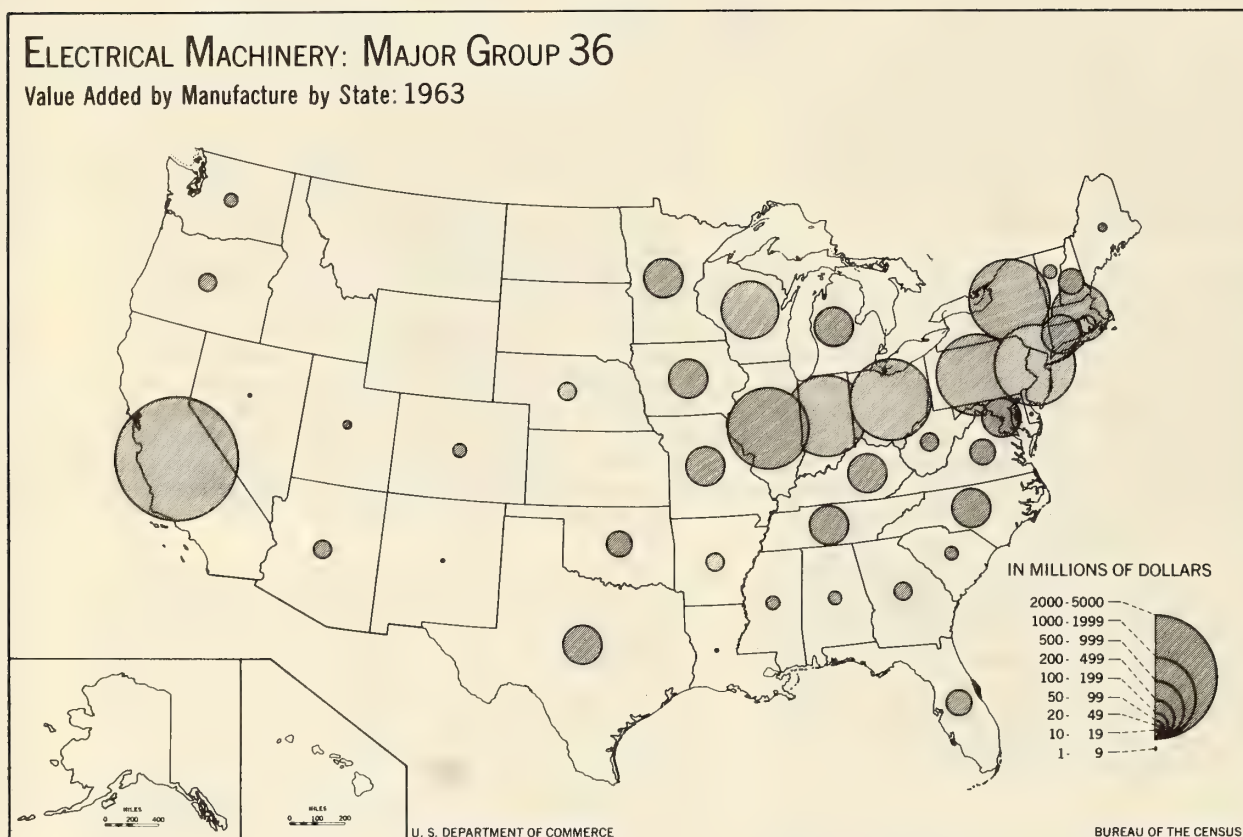


TABLE 1. General Statistics: 1963 and Earlier Years

Year and item	Establishments		All employees <sup>1</sup>		Production workers			Value added by manufacture, adjusted <sup>2</sup>	Cost of materials <sup>3</sup>	Value of shipments <sup>3</sup>	Capital expenditures, new <sup>4</sup>
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
<b>ALL MANUFACTURING ESTABLISHMENTS: TOTAL:</b>											
1963 . . . . .	10 365	4 996	1 612 178	10 207 142	1 049 357	2 090 531	5 405 786	17 010 665	12 942 644	29 840 182	701 947
1958 . . . . .	8 476	3 995	1 218 645	6 323 389	810 236	1 592 019	3 519 743	10 471 523	(NA)	19 289 387	459 729
1954 . . . . .	(NA)	(NA)	1 004 532	4 229 300	722 443	1 422 339	2 645 588	7 299 607	(NA)	(NA)	340 677
<b>ADMINISTRATIVE AND AUXILIARY UNITS:</b>											
1963 . . . . .	417	274	100 359	922 863	(x)	(x)	(x)	(x)	(x)	(x)	(x)
1958 . . . . .	390	198	77 838	568 169	(x)	(x)	(x)	(x)	(x)	(x)	(x)
1954 . . . . .	(NA)	(NA)	45 406	278 306	(x)	(x)	(x)	(x)	(x)	(x)	(x)
<b>OPERATING MANUFACTURING ESTABLISHMENTS:</b>											
1963 . . . . .	9 948	4 722	1 511 819	9 284 279	1 049 357	2 090 531	5 405 786	17 010 665	12 942 644	29 840 182	701 947
1958 . . . . .	8 086	3 797	1 140 807	5 755 220	817 009	1 605 794	3 557 614	10 624 264	(NA)	19 547 559	468 049
1954 . . . . .	5 758	2 837	959 126	3 950 994	722 443	1 422 339	2 645 588	7 299 607	(NA)	(NA)	340 677
<b>OPERATING MANUFACTURING ESTABLISHMENTS:</b>											
1962 <sup>5</sup> . . . . .	(NA)	(NA)	1 523 390	9 083 435	1 045 954	2 120 880	5 317 740	16 416 428	12 674 742	29 133 357	652 741
1961 <sup>6</sup> . . . . .	(NA)	(NA)	1 432 111	8 207 422	969 785	1 950 631	4 680 787	14 433 000	11 564 659	25 918 916	639 090
1960 <sup>7</sup> . . . . .	(NA)	(NA)	1 376 584	7 515 435	962 004	1 931 966	4 465 545	13 484 239	(NA)	(NA)	636 789
1959 <sup>8</sup> . . . . .	(NA)	(NA)	1 274 147	6 751 591	926 664	1 854 705	4 195 929	12 825 837	(NA)	(NA)	553 788
1957 <sup>9</sup> . . . . .	(NA)	(NA)	1 084 367	5 133 431	794 504	1 565 205	3 292 470	9 620 386	(NA)	(NA)	524 090
1956 <sup>10</sup> . . . . .	(NA)	(NA)	1 080 346	4 903 040	816 796	1 617 919	3 261 155	9 111 975	(NA)	(NA)	475 362
1955 <sup>11</sup> . . . . .	(NA)	(NA)	1 000 960	4 313 717	758 694	1 521 004	2 895 957	8 002 066	(NA)	(NA)	334 597
1953 <sup>12</sup> . . . . .	(NA)	(NA)	1 095 852	4 424 751	851 443	1 702 904	3 077 463	7 876 186	(NA)	(NA)	406 425
1952 <sup>13</sup> . . . . .	(NA)	(NA)	957 251	3 750 218	740 504	1 521 034	2 629 427	6 873 204	(NA)	(NA)	(NA)
1951 <sup>14</sup> . . . . .	4 294	(NA)	876 551	3 193 256	692 059	1 396 428	2 277 716	5 753 226	(NA)	(NA)	296 252
1950 <sup>15</sup> . . . . .	3 873	(NA)	765 613	2 532 870	609 819	1 221 179	1 799 660	4 815 364	(NA)	(NA)	195 458
1949 <sup>16</sup> . . . . .	(NA)	(NA)	663 147	2 144 778	506 129	1 025 573	1 459 988	3 901 654	(NA)	(NA)	187 284
1947 <sup>17</sup> . . . . .	3 970	(NA)	796 357	2 258 657	634 661	1 277 994	1 636 714	3 860 235	(NA)	(NA)	224 606
1939 <sup>18</sup> . . . . .	1 979	(NA)	(NA)	(NA)	247 930	(NA)	323 388	941 469	(NA)	(NA)	(NA)
1937 <sup>19</sup> . . . . .	1 597	(NA)	374 290	559 482	306 003	(NA)	407 961	1 102 133	(NA)	(NA)	(NA)
1935 . . . . .	1 589	(NA)	275 343	347 533	224 437	(NA)	240 952	685 716	(NA)	(NA)	(NA)
1933 <sup>20</sup> . . . . .	1 365	(NA)	202 129	211 777	163 736	(NA)	145 404	404 199	(NA)	(NA)	(NA)
1931 . . . . .	1 596	(NA)	(NA)	(NA)	216 596	(NA)	239 634	762 626	(NA)	(NA)	(NA)
1929 . . . . .	1 861	(NA)	421 283	649 498	343 138	(NA)	474 203	1 389 424	(NA)	(NA)	(NA)
1927 <sup>21</sup> . . . . .	1 837	(NA)	322 397	509 350	255 782	(NA)	356 415	1 049 374	(NA)	(NA)	(NA)
1925 <sup>22</sup> . . . . .	1 807	(NA)	308 592	462 975	251 188	(NA)	337 979	939 520	(NA)	(NA)	(NA)
1923 . . . . .	1 782	(NA)	331 505	473 751	255 383	(NA)	330 425	806 436	(NA)	(NA)	(NA)
1921 . . . . .	1 487	(NA)	239 944	338 863	179 142	(NA)	216 016	547 071	(NA)	(NA)	(NA)
1919 . . . . .	1 570	(NA)	305 222	379 020	241 095	(NA)	272 152	671 678	(NA)	(NA)	(NA)
1914 . . . . .	1 048	(NA)	155 699	117 868	127 459	(NA)	80 148	200 510	(NA)	(NA)	(NA)
1909 . . . . .	1 027	(NA)	111 087	73 360	92 455	(NA)	52 222	121 369	(NA)	(NA)	(NA)
1904 <sup>23</sup> . . . . .	798	(NA)	75 019	45 283	63 863	(NA)	33 525	80 048	(NA)	(NA)	(NA)
1899 <sup>24</sup> . . . . .	592	(NA)	48 491	25 999	43 280	(NA)	21 188	44 395	(NA)	(NA)	(NA)

Standard Notes: - Represents Zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The figures for 1939 through 1963 include data for employees of manufacturing establishments who are engaged in distribution and construction work. The extent to which data for such employees are included in the figures for earlier years is not known.

<sup>2</sup>For the period 1954 to 1963, figures represent adjusted value added by manufacture and for earlier years, unadjusted value added. Adjusted value added is equal to value of shipments (including resales of finished products) less cost of finished products, materials, supplies, fuel, electric energy and contract work, plus the net change in the value of finished products and work-in-process inventories between the beginning and end of the year, without adjustment for price changes. Unadjusted value added is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. See Introduction, "Value Added by Manufacture."

<sup>3</sup>The total value of shipments and cost of materials for industry groups (2- and 3-digit) includes extensive duplication arising from shipments between establishments in the same industry classification. For a more complete explanation, see Introduction.

<sup>4</sup>The figures for 1958 to 1963 include expenditures for plants under construction and not yet in operation.

<sup>5</sup>Data for 1947, 1954, and later years, exclude establishments primarily engaged in the manufacture of automatic temperature controls, whereas data for 1949 to 1953 include these establishments.

<sup>6</sup>In addition to data for operating establishments, figures for employment and payroll for manufacturing central administrative offices and auxiliary units are shown for the years 1949 to 1953 in the annual survey of manufactures volumes. Data for these units are not available for the years 1955 to 1957, 1959 to 1962, and prior to 1949.

<sup>7</sup>Figures for 1958 to 1963, for operating manufacturing establishments are not strictly comparable with prior years due to revisions of the Standard Industrial Classification

System. Prior to 1958, data excludes establishments primarily engaged in the manufacture of household ranges and ovens; household refrigerators and home and farm freezers; household laundry equipment; household vacuum cleaners; sewing machines; water heaters, except electric; and other household appliances. Establishments primarily engaged in the manufacture of hearing aids; high frequency, induction, and dielectric heating apparatus; commercial food warming equipment; industrial electric heating units and devices; and insulated wire and cable made from purchased wire, are included in data prior to 1958.

<sup>8</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, consequently, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>9</sup>Data for 1939 and earlier years exclude establishments primarily engaged in the manufacture of electric (dry) shavers.

<sup>10</sup>Figures for 1937 and earlier years include data for establishments primarily engaged in the manufacture of vacuum cleaners, turbo-generators and water-wheel generator sets, dictating machines and electric industrial furnaces and ovens. Value added for 1939 and basis comparable with earlier years was \$1,000 million.

<sup>11</sup>The figures for 1933 and earlier years include data for establishments primarily engaged in the manufacture of certain types of beauty and barber-shop equipment classified for later years in the "Miscellaneous manufactures" industries.

<sup>12</sup>The figures for 1925 and earlier years include data for establishments primarily engaged in the manufacture of certain types of mechanical refrigerators, classified for later years in the machinery (except electrical) industries.

<sup>13</sup>The figures for 1899 and 1904 include data for establishments primarily engaged in the manufacture of signs and advertising novelties, classified for later years in the "Miscellaneous manufactures" industries.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
		Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
36	ELECTRICAL MACHINERY, TOTAL. . . . .	9 948	4 722	1 511 819	9 284 279	1 049 357	2 090 531	5 405 786	17 010 665	701 947	1 140 807	10 624 264
	NORTHEAST . . . . .	4 058	1 964	582 032	3 646 251	393 518	779 159	2 057 730	6 131 016	240 317	467 130	4 167 435
	NEW ENGLAND . . . . .	977	518	161 306	927 672	110 258	218 651	528 529	1 654 469	60 781	121 514	1 044 858
	MAINE . . . . .	13	8	2 036	8 028	1 655	3 395	5 617	10 724	508	862	5 528
	NEW HAMPSHIRE . . . . .	61	35	11 508	58 862	8 840	17 441	38 735	100 912	4 020	7 726	55 546
	VERMONT . . . . .	8	6	1 871	10 174	1 451	2 888	6 678	19 939	928	1 397	9 015
	MASSACHUSETTS . . . . .	529	275	96 183	572 522	63 235	125 907	316 566	985 805	36 684	76 377	646 849
	RHODE ISLAND . . . . .	45	29	6 777	30 350	5 152	9 828	17 669	61 622	1 207	3 465	25 063
	CONNECTICUT . . . . .	321	165	42 931	247 736	29 925	59 192	143 264	475 467	17 434	31 687	302 857
	MIDDLE ATLANTIC . . . . .	3 081	1 446	420 726	2 718 579	283 400	560 508	1 529 201	4 476 547	179 536	345 616	3 122 577
	NEW YORK . . . . .	1 611	716	185 978	1 225 235	117 660	232 683	628 932	1 959 554	75 774	144 442	1 336 714
	NEW JERSEY . . . . .	861	394	127 738	848 065	89 200	176 612	504 571	1 314 683	45 315	104 934	858 342
	PENNSYLVANIA . . . . .	609	336	107 010	645 279	76 540	151 213	395 698	1 190 613	58 447	96 240	927 521
	NORTH CENTRAL . . . . .	2 651	1 454	529 593	3 126 914	393 840	782 618	2 038 256	6 238 207	236 563	467 084	4 389 240
	EAST NORTH CENTRAL . . . . .	2 222	1 226	458 480	2 725 402	343 806	681 809	1 797 056	5 443 666	207 930	415 193	3 928 951
	OHIO . . . . .	495	281	117 182	734 707	86 128	173 039	485 812	1 547 622	51 757	107 818	1 140 800
	INDIANA . . . . .	231	133	91 105	550 254	73 382	146 942	402 451	1 125 703	43 501	74 953	673 927
	ILLINOIS . . . . .	929	530	168 200	932 048	125 346	244 306	593 376	1 797 715	74 171	159 623	1 448 521
	MICHIGAN . . . . .	355	158	32 231	193 759	25 267	51 624	135 396	376 278	13 418	27 016	252 227
	WISCONSIN . . . . .	212	124	49 762	314 634	33 683	65 898	180 021	596 348	25 083	45 721	413 476
	WEST NORTH CENTRAL . . . . .	429	228	71 113	401 512	50 034	100 809	241 200	794 541	28 633	51 891	460 289
	MINNESOTA . . . . .	152	79	18 953	121 748	12 201	24 473	63 055	225 256	7 632	10 787	92 108
	IOWA . . . . .	56	35	19 635	107 380	12 896	25 918	61 772	252 644	6 320	14 765	163 748
	MISSOURI . . . . .	148	86	24 081	128 983	18 610	37 657	87 929	227 391	10 809	21 492	169 586
	SOUTH DAKOTA . . . . .	4	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	NEBRASKA . . . . .	28	11	5 348	28 983	3 891	7 756	18 653	64 379	2 635	3 349	22 796
	KANSAS . . . . .	41	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1 457	11 291
	SOUTH . . . . .	1 159	524	189 588	1 064 650	134 105	269 900	608 289	2 250 503	96 461	104 166	1 115 504
	SOUTH ATLANTIC . . . . .	561	264	98 233	585 691	63 904	128 890	303 291	1 104 020	48 636	54 304	548 049
	DELAWARE . . . . .	11	6	539	2 717	439	834	1 811	8 399	1 068	(D)	(D)
	MARYLAND . . . . .	108	49	26 871	187 297	14 960	30 162	84 714	312 625	8 317	20 140	187 494
	DISTRICT OF COLUMBIA . . . . .	14	4	153	738	103	213	430	1 064	73	(D)	(D)
	VIRGINIA . . . . .	55	32	16 909	97 299	11 143	21 953	50 777	180 664	5 953	5 960	69 819
	WEST VIRGINIA . . . . .	20	13	4 470	25 139	3 770	7 806	19 382	62 427	4 698	3 516	53 224
	NORTH CAROLINA . . . . .	83	48	23 195	117 975	16 464	33 418	70 301	279 179	13 109	13 846	143 130
	SOUTH CAROLINA . . . . .	13	13	5 612	20 742	4 447	8 497	13 573	33 007	3 087	1 715	12 337
	GEORGIA . . . . .	55	26	5 359	29 404	3 852	7 926	18 196	73 308	1 896	3 808	41 313
	FLORIDA . . . . .	196	73	15 125	104 381	8 726	18 081	44 107	153 347	10 435	5 046	37 536
	EAST SOUTH CENTRAL . . . . .	220	134	48 201	238 915	39 507	78 069	172 060	667 574	24 758	34 606	423 934
	KENTUCKY . . . . .	61	39	21 319	120 282	17 889	35 257	89 072	350 172	10 083	17 132	238 268
	TENNESSEE . . . . .	92	56	17 530	79 550	13 939	27 798	54 979	230 442	8 692	10 708	123 949
	ALABAMA . . . . .	34	15	3 793	19 515	2 961	6 206	13 299	37 527	1 813	3 766	33 797
	MISSISSIPPI . . . . .	33	24	5 559	19 568	4 718	8 808	14 710	49 433	4 170	3 000	27 920
	WEST SOUTH CENTRAL . . . . .	378	126	43 154	240 044	30 694	62 941	132 938	478 909	23 067	15 257	143 521
	ARKANSAS . . . . .	35	21	7 599	29 216	6 596	12 948	22 636	79 169	3 206	2 914	29 214
	LOUISIANA . . . . .	30	4	262	1 190	202	408	783	2 391	108	158	1 199
	OKLAHOMA . . . . .	52	18	9 489	57 626	6 293	12 458	23 884	105 802	3 506	2 161	19 088
	TEXAS . . . . .	261	83	25 804	152 012	17 603	37 127	85 635	291 547	16 247	10 024	94 020
	WEST . . . . .	2 086	786	211 472	1 450 680	126 850	257 192	710 400	2 424 392	128 466	102 859	959 701
	MOUNTAIN . . . . .	164	56	15 021	86 193	10 094	20 660	48 070	147 024	20 831	5 339	44 539
	IDAHO . . . . .	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	WYOMING . . . . .	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	COLORADO . . . . .	67	25	3 486	18 768	2 429	4 820	10 580	43 322	(D)	1 907	16 137
	NEW MEXICO . . . . .	14	5	378	1 938	292	528	1 242	3 117	297	(D)	(D)
	ARIZONA . . . . .	51	14	9 131	55 876	5 742	11 767	28 731	86 431	(D)	2 362	19 907
	UTAH . . . . .	17	8	1 672	8 154	1 349	3 027	6 490	12 161	329	593	5 300
	NEVADA . . . . .	11	2	267	1 225	222	417	844	1 636	124	(D)	(D)
	PACIFIC . . . . .	1 922	730	196 451	1 364 487	116 756	236 532	662 330	2 277 368	107 635	97 520	915 162
	WASHINGTON . . . . .	69	22	2 693	17 036	1 718	3 236	8 279	29 673	1 187	1 242	12 240
	OREGON . . . . .	64	20	5 759	33 295	3 682	6 546	17 815	55 381	3 163	2 467	28 960
	CALIFORNIA . . . . .	1 781	688	187 965	1 313 998	111 328	226 697	636 113	2 192 114	103 263	93 811	873 912
	ALASKA . . . . .	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	HAWAII . . . . .	6	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
361	ELECTRIC DISTRIBUTION PRODUCTS, TOTAL	1 137	522	132 125	822 019	91 840	183 688	484 186	1 534 661	50 548	134 395	1 338 652
	NORTHEAST . . . . .	426	190	58 246	382 899	39 315	78 396	222 361	664 841	21 284	66 048	666 671
	NEW ENGLAND . . . . .	108	50	16 299	103 225	10 590	21 447	55 375	200 321	7 089	19 917	192 286
	NEW HAMPSHIRE . . . . .	15	9	2 827	15 099	2 091	4 177	9 365	39 044	1 247	(D)	(D)
	MASSACHUSETTS . . . . .	54	23	9 840	68 000	5 953	12 211	34 281	124 257	4 678	13 541	131 391
	MIDDLE ATLANTIC . . . . .	318	140	41 947	279 674	28 725	56 949	166 986	464 520	14 195	46 131	474 403
	NEW YORK . . . . .	134	62	7 323	42 084	5 181	9 961	24 705	71 019	2 306	7 612	62 790
	NEW JERSEY . . . . .	116	46	10 264	62 011	7 512	14 742	38 934	112 439	3 690	12 568	101 568
	PENNSYLVANIA . . . . .	68	32	24 360	175 579	16 032	32 246	103 347	281 062	8 199	25 951	310 045

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963								1958		
		Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
		Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
361	ELECTRIC DISTRIBUTION PRODUCTS-CONT. NORTH CENTRAL . . . . .	305	161	38 826	225 247	28 479	56 766	140 242	422 116	15 384	40 035	364 894
	EAST NORTH CENTRAL . . . . .	261	137	32 348	192 152	23 469	46 430	117 630	367 349	13 897	(D)	(D)
	OHIO . . . . .	61	35	6 060	35 191	4 408	8 881	21 596	78 769	1 925	5 774	53 666
	INDIANA . . . . .	24	12	4 234	25 464	3 043	5 821	15 470	50 134	2 845	6 191	47 904
	ILLINOIS . . . . .	103	53	15 153	86 011	11 342	22 568	55 196	161 674	6 122	(D)	(D)
	MICHIGAN . . . . .	45	20	2 564	16 737	1 855	3 698	10 134	29 961	937	3 581	32 977
	WISCONSIN . . . . .	28	17	4 337	28 749	2 821	5 462	15 234	46 811	2 068	3 353	36 703
	WEST NORTH CENTRAL . . . . .	44	24	6 478	33 095	5 010	10 336	22 612	54 767	1 487	(D)	(D)
	MISSOURI . . . . .	15	11	4 476	23 662	3 452	7 266	16 268	26 377	1 095	5 004	47 572
	SOUTH . . . . .	143	64	13 467	71 553	9 813	19 951	43 179	176 497	3 783	9 121	101 207
	SOUTH ATLANTIC . . . . .	58	29	7 601	40 046	5 475	11 318	23 448	103 883	2 123	6 127	65 923
	MARYLAND . . . . .	17	7	499	2 565	368	723	1 114	3 985	251	906	4 925
	NORTH CAROLINA . . . . .	8	4	2 147	10 902	1 571	3 286	6 377	41 021	416	1 696	24 600
	GEORGIA . . . . .	11	10	3 490	20 308	2 366	4 941	11 696	46 854	1 063	2 701	30 068
	FLORIDA . . . . .	9	4	309	1 434	240	489	880	2 638	(D)	749	5 724
	EAST SOUTH CENTRAL . . . . .	26	13	3 252	16 116	2 578	4 952	10 864	42 962	414	1 608	20 200
	KENTUCKY . . . . .	7	6	2 292	11 474	1 857	3 502	7 802	31 297	176	951	13 846
	ALABAMA . . . . .	8	3	404	2 557	259	507	1 503	7 235	75	(D)	(D)
	MISSISSIPPI . . . . .	5	3	466	1 759	397	828	1 321	3 957	140	(D)	(D)
	WEST SOUTH CENTRAL . . . . .	59	22	2 614	15 391	1 760	3 681	8 867	29 652	1 246	1 386	15 084
	TEXAS . . . . .	48	18	1 606	10 054	1 142	2 382	6 184	20 297	1 063	(D)	(D)
	WEST . . . . .	263	107	21 512	142 258	14 117	28 356	77 914	267 632	10 092	19 191	205 862
	MOUNTAIN . . . . .	26	11	1 986	11 796	1 238	2 513	5 802	29 908	2 103	852	9 417
	PACIFIC . . . . .	237	96	19 526	130 462	12 879	25 843	72 112	237 724	7 989	18 339	196 445
	WASHINGTON . . . . .	8	3	511	3 207	258	540	1 488	7 395	(D)	(D)	(D)
	CALIFORNIA . . . . .	215	86	14 026	98 192	9 488	19 777	55 374	184 514	4 705	16 235	167 669
362	ELECTRIC INDUSTRIAL APPARATUS, TOTAL	1 244	586	160 953	1 004 907	116 890	236 294	640 570	1 889 181	72 031	156 332	1 447 753
	NORTHEAST . . . . .	401	181	46 490	308 049	32 751	67 334	187 622	558 034	19 880	49 207	454 195
	NEW ENGLAND . . . . .	96	40	6 025	32 982	4 131	8 281	19 463	61 025	1 496	6 374	49 173
	MASSACHUSETTS . . . . .	42	20	2 034	10 574	1 437	2 797	6 137	17 770	491	2 184	15 639
	CONNECTICUT . . . . .	43	15	3 402	20 041	2 264	4 632	11 867	39 346	704	3 788	31 139
	MIDDLE ATLANTIC . . . . .	305	141	40 465	275 067	28 620	59 053	168 159	497 009	18 384	42 833	405 022
	NEW YORK . . . . .	145	58	22 278	164 072	16 479	34 077	103 994	277 161	9 554	24 685	242 741
	NEW JERSEY . . . . .	77	36	5 750	33 745	3 509	7 170	17 646	50 065	1 776	7 000	51 977
	PENNSYLVANIA . . . . .	83	47	12 437	77 250	8 632	17 806	46 519	169 783	7 054	11 148	110 304
	NORTH CENTRAL . . . . .	499	278	89 469	563 013	65 970	132 584	370 525	1 037 005	40 824	89 386	808 523
	EAST NORTH CENTRAL . . . . .	430	246	80 395	508 478	59 215	118 983	333 373	954 469	36 622	78 687	722 724
	OHIO . . . . .	114	68	30 596	207 890	21 960	45 515	137 195	374 202	15 530	32 661	310 082
	INDIANA . . . . .	40	24	11 590	65 945	8 945	17 148	44 592	124 376	2 564	10 028	91 377
	ILLINOIS . . . . .	123	65	10 028	53 584	7 505	15 115	34 301	110 421	4 252	10 343	92 844
	MICHIGAN . . . . .	97	54	7 533	47 056	5 689	11 802	29 798	73 160	1 972	5 001	41 113
	WISCONSIN . . . . .	56	35	20 648	134 003	15 116	29 403	87 487	272 310	12 304	20 654	187 308
	WEST NORTH CENTRAL . . . . .	69	32	9 074	54 535	6 755	13 601	37 152	82 536	4 202	10 699	85 799
	MINNESOTA . . . . .	33	16	3 360	21 635	2 341	4 778	13 255	39 113	1 310	2 979	29 496
	MISSOURI . . . . .	26	14	5 403	31 269	4 185	8 422	22 954	40 693	2 845	7 263	52 812
	SOUTH . . . . .	126	60	16 653	83 878	12 420	24 939	52 567	207 383	7 826	10 165	119 585
	SOUTH ATLANTIC . . . . .	55	25	9 434	52 383	6 176	12 464	28 759	120 676	3 841	6 953	82 654
	MARYLAND . . . . .	11	6	1 086	5 436	816	1 599	3 459	10 938	189	778	5 842
	NORTH CAROLINA . . . . .	7	4	2 073	9 848	1 373	3 015	6 668	27 267	822	(D)	(D)
	EAST SOUTH CENTRAL . . . . .	22	15	3 331	14 340	2 963	5 878	11 477	48 596	2 430	1 690	22 334
	TENNESSEE . . . . .	10	7	2 319	10 289	2 064	4 109	8 342	39 003	982	(D)	(D)
	WEST SOUTH CENTRAL . . . . .	49	20	3 888	17 155	3 281	6 597	12 331	38 111	1 555	1 522	14 597
	OKLAHOMA . . . . .	8	4	500	2 687	346	706	1 440	3 458	136	(D)	(D)
	TEXAS . . . . .	28	7	692	4 091	485	983	2 223	6 385	313	(D)	(D)
	WEST . . . . .	219	68	8 530	51 641	5 836	11 837	31 204	87 606	3 489	7 574	65 450
	MOUNTAIN . . . . .	24	5	1 061	4 320	835	1 572	2 924	9 076	(D)	814	4 413
	COLORADO . . . . .	11	3	877	3 606	692	1 324	2 427	7 847	438	759	4 014
	ARIZONA . . . . .	6	1	117	391	94	156	295	702	18	21	108
	PACIFIC . . . . .	195	63	7 469	47 321	5 001	10 265	28 280	78 530	(D)	6 760	61 037
	WASHINGTON . . . . .	10	4	147	1 005	95	186	550	1 996	85	178	1 771
	CALIFORNIA . . . . .	173	57	7 254	46 018	4 856	9 988	27 520	76 006	2 918	6 555	58 927

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
									(number)	(number)	(number)	(\$1,000)
363	HOUSEHOLD APPLIANCES, TOTAL . . . . .	700	339	145 855	863 963	116 147	229 001	613 844	2 097 915	71 252	142 951	1 548 808
	NORTHEAST . . . . .	241	96	24 886	139 714	19 076	37 860	92 048	326 939	9 401	26 553	235 324
	NEW ENGLAND . . . . .	50	27	9 506	53 681	7 159	14 418	34 846	161 237	4 841	8 209	94 751
	CONNECTICUT . . . . .	19	16	7 949	44 674	5 993	12 095	29 230	140 715	3 156	6 773	83 508
	MIDDLE ATLANTIC . . . . .	191	69	15 380	86 033	11 917	23 442	57 202	165 702	4 560	18 344	140 573
	NEW YORK . . . . .	140	51	7 238	35 702	5 732	11 234	24 128	71 303	1 913	7 189	55 558
	NEW JERSEY . . . . .	26	5	3 781	26 051	2 777	5 650	17 981	38 127	906	5 959	35 695
	PENNSYLVANIA . . . . .	25	13	4 361	24 280	3 408	6 558	15 093	56 272	1 741	5 196	49 320
	NORTH CENTRAL . . . . .	249	141	88 114	551 961	70 358	138 310	399 735	1 303 872	44 118	88 401	951 196
	EAST NORTH CENTRAL . . . . .	209	118	79 387	505 690	62 801	123 150	362 371	1 168 777	40 536	77 211	830 740
	OHIO . . . . .	39	26	32 127	220 018	25 147	49 722	156 977	536 031	17 634	29 859	394 390
	INDIANA . . . . .	20	11	9 287	56 897	7 687	14 982	43 231	151 274	4 713	8 666	66 134
	ILLINOIS . . . . .	78	47	24 026	144 991	19 157	36 618	102 908	293 830	9 538	23 518	229 224
	MICHIGAN . . . . .	41	17	7 568	46 761	6 130	12 523	35 175	109 675	5 358	8 368	75 606
	WISCONSIN . . . . .	31	17	6 379	37 023	4 680	9 305	24 080	77 967	3 293	6 800	65 386
	WEST NORTH CENTRAL . . . . .	40	23	8 727	46 271	7 557	15 160	37 364	135 095	3 582	11 190	120 456
	IOWA . . . . .	10	7	3 573	21 031	3 181	6 355	17 997	84 707	1 635	5 015	70 226
	SOUTH . . . . .	113	65	25 634	126 878	21 545	42 503	94 181	366 736	13 705	20 831	267 506
	SOUTH ATLANTIC . . . . .	36	17	3 444	13 244	2 966	5 948	10 123	30 527	2 443	2 829	26 378
	EAST SOUTH CENTRAL . . . . .	48	36	19 042	100 759	16 001	31 597	74 980	308 213	10 550	16 991	235 292
	TENNESSEE . . . . .	28	21	6 322	25 608	5 357	10 878	18 842	63 616	2 923	5 966	60 394
	WEST SOUTH CENTRAL . . . . .	29	12	3 148	12 875	2 578	4 958	9 078	27 996	712	1 011	5 836
	WEST . . . . .	98	38	7 259	45 594	5 196	10 384	28 008	105 748	4 028	7 166	94 782
	MOUNTAIN . . . . .	6	-	25	90	20	37	63	158	8	(D)	(D)
	PACIFIC . . . . .	92	38	7 234	45 504	5 176	10 347	27 945	105 590	4 020	(D)	(D)
	WASHINGTON . . . . .	9	4	325	1 679	255	472	1 211	2 991	126	(D)	(D)
	OREGON . . . . .	7	3	146	738	113	202	445	2 622	10	(D)	(D)
	CALIFORNIA . . . . .	76	31	6 763	43 087	4 808	9 673	26 289	99 977	3 884	6 726	92 295
364	LIGHTING AND WIRING DEVICES, TOTAL . . . . .	1 951	813	132 984	709 630	104 508	206 705	487 642	1 559 630	62 104	124 218	1 183 319
	NORTHEAST . . . . .	937	402	66 566	339 653	52 588	102 869	234 404	708 065	24 980	62 233	557 801
	NEW ENGLAND . . . . .	172	85	20 189	100 146	16 101	31 477	74 291	208 085	7 991	19 064	175 938
	CONNECTICUT . . . . .	63	31	7 495	41 534	5 800	11 523	28 581	80 689	2 474	8 617	75 897
	MIDDLE ATLANTIC . . . . .	765	317	46 377	239 507	36 487	71 392	163 113	499 980	16 989	43 169	381 863
	NEW YORK . . . . .	448	153	19 015	97 718	14 666	28 433	64 670	179 575	6 193	18 382	144 183
	NEW JERSEY . . . . .	164	71	14 248	77 597	11 181	22 238	52 785	157 379	5 582	12 391	107 033
	PENNSYLVANIA . . . . .	153	93	13 114	64 192	10 640	20 721	45 658	163 026	5 214	12 396	130 647
	NORTH CENTRAL . . . . .	497	244	44 585	255 895	34 081	68 256	171 981	570 629	21 797	41 935	407 358
	EAST NORTH CENTRAL . . . . .	424	208	39 585	227 105	30 397	60 766	154 490	501 292	18 720	38 002	371 074
	OHIO . . . . .	115	62	13 636	77 138	10 816	21 224	54 754	201 706	4 997	12 399	141 700
	INDIANA . . . . .	32	13	6 574	44 967	5 290	11 324	33 793	89 445	5 588	5 886	54 016
	ILLINOIS . . . . .	204	107	16 160	87 370	11 948	23 449	54 624	180 479	7 052	17 281	154 955
	WEST NORTH CENTRAL . . . . .	73	36	5 000	28 790	3 684	7 490	17 491	69 337	3 077	3 933	36 284
	MINNESOTA . . . . .	18	7	617	3 499	513	1 131	2 616	14 049	1 131	1 919	1 919
	MISSOURI . . . . .	46	26	4 263	24 765	3 073	6 177	14 517	54 042	1 885	3 618	33 671
	SOUTH . . . . .	161	61	13 169	65 662	11 081	22 480	49 358	182 274	11 220	9 830	121 077
	SOUTH ATLANTIC . . . . .	78	25	5 523	29 538	4 603	9 585	22 050	80 694	5 979	3 849	54 659
	WEST VIRGINIA . . . . .	5	4	2 541	14 593	2 262	4 765	12 114	36 785	(D)	2 165	36 851
	FLORIDA . . . . .	28	7	377	1 558	296	607	1 033	3 049	83	(D)	(D)
	EAST SOUTH CENTRAL . . . . .	27	21	5 910	27 966	5 043	10 052	21 443	77 020	3 552	5 024	55 341
	KENTUCKY . . . . .	13	9	2 370	10 587	1 990	3 982	7 887	27 869	1 831	(D)	(D)
	MISSISSIPPI . . . . .	5	5	1 384	6 166	1 204	2 422	4 876	22 342	715	1 127	15 074
	WEST SOUTH CENTRAL . . . . .	56	15	1 736	8 158	1 435	2 843	5 865	24 560	1 689	957	11 077
	WEST . . . . .	357	107	8 772	48 874	6 845	13 278	32 230	100 739	4 162	10 220	97 083
	MOUNTAIN . . . . .	19	3	227	1 266	182	357	751	2 376	324	139	1 377
	COLORADO . . . . .	10	2	163	947	131	257	563	1 735	(D)	(D)	(D)
	PACIFIC . . . . .	338	104	8 545	47 608	6 663	12 921	31 479	98 363	3 838	10 081	95 706
	CALIFORNIA . . . . .	321	100	7 943	44 652	6 190	12 137	29 344	92 554	3 605	9 665	91 846

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
									(number)	(number)	(number)	(\$1,000)
365	RADIO & TV RECEIVING EQUIPMENT, TOTAL	515	238	90 818	458 905	74 104	143 485	322 263	1 037 342	39 215	73 926	687 032
	NORTHEAST . . . . .	229	110	28 464	147 000	22 179	42 228	98 188	306 843	7 536	26 748	238 808
	NEW ENGLAND . . . . .	27	15	2 833	12 956	2 259	4 221	8 374	23 136	688	3 129	35 053
	MASSACHUSETTS . . . . .	13	8	1 842	7 362	1 536	2 784	5 370	15 909	461	1 406	11 190
	MIDDLE ATLANTIC . . . . .	202	95	25 631	134 044	19 920	38 007	89 814	283 707	6 848	23 619	203 755
	NEW YORK . . . . .	138	60	14 131	78 195	10 507	19 906	49 280	163 493	4 515	11 490	114 162
	NEW JERSEY . . . . .	45	24	7 062	34 673	5 568	10 645	23 633	80 002	1 504	6 732	50 186
	PENNSYLVANIA . . . . .	19	11	4 438	21 176	3 845	7 456	16 901	40 212	829	5 397	39 407
	NORTH CENTRAL . . . . .	130	81	50 866	256 018	42 931	83 859	189 973	578 556	21 784	39 835	382 469
	EAST NORTH CENTRAL . . . . .	113	69	48 568	246 247	41 075	80 261	183 241	561 351	21 469	38 325	373 876
	OHIO . . . . .	14	7	1 105	5 038	796	1 611	2 843	9 401	120	2 845	21 745
	INDIANA . . . . .	18	13	16 814	88 950	14 329	28 131	69 145	238 364	8 639	11 133	119 969
	ILLINOIS . . . . .	66	43	29 326	146 021	24 882	48 409	106 873	303 209	12 445	21 509	207 654
	WEST NORTH CENTRAL . . . . .	17	12	2 298	9 771	1 856	3 598	6 732	17 205	315	1 510	8 593
	IOWA . . . . .	5	5	1 198	4 678	1 000	2 001	3 493	7 841	114	(D)	(D)
	SOUTH . . . . .	49	16	5 745	22 068	4 953	9 145	14 953	85 578	4 001	2 947	34 264
	WEST . . . . .	108	32	5 921	34 319	4 219	8 598	19 649	66 080	5 913	4 396	31 485
	MOUNTAIN . . . . .	5	-	32	166	25	48	115	238	20	(D)	(D)
	PACIFIC . . . . .	103	32	5 889	34 153	4 194	8 550	19 534	65 842	5 893	(D)	(D)
	CALIFORNIA . . . . .	100	32	5 866	34 093	4 183	8 533	19 513	65 764	5 884	(D)	(D)
366	COMMUNICATION EQUIPMENT, TOTAL . . . .	1 222	691	476 849	3 394 593	269 681	541 828	1 589 412	5 341 463	193 861	219 946	2 121 031
	NORTHEAST . . . . .	521	313	194 569	1 447 942	109 893	220 112	701 702	2 095 711	65 693	100 263	1 034 207
	NEW ENGLAND . . . . .	148	94	51 496	348 172	29 572	60 231	169 598	564 831	18 291	22 198	229 284
	MASSACHUSETTS . . . . .	88	55	40 692	274 924	23 546	47 714	136 999	458 170	13 649	15 701	164 539
	CONNECTICUT . . . . .	42	28	6 818	46 973	3 670	7 686	19 258	72 778	3 792	2 777	24 596
	MIDDLE ATLANTIC . . . . .	373	219	143 073	1 099 770	80 321	159 881	532 104	1 530 880	47 402	78 065	804 923
	NEW YORK . . . . .	195	119	73 675	569 036	36 043	71 410	237 368	812 506	21 121	40 603	454 413
	NEW JERSEY . . . . .	116	65	57 898	451 231	37 340	74 908	254 299	612 512	20 353	32 781	314 442
	PENNSYLVANIA . . . . .	62	35	11 500	79 503	6 938	13 563	40 437	105 862	5 928	4 681	36 068
	NORTH CENTRAL . . . . .	224	117	108 736	689 243	65 389	129 546	353 597	1 206 269	48 692	77 142	720 443
	EAST NORTH CENTRAL . . . . .	186	93	82 898	522 880	51 035	100 343	277 547	913 153	37 023	(D)	(D)
	OHIO . . . . .	42	21	15 055	87 417	8 865	17 647	43 682	150 948	4 232	4 103	24 871
	INDIANA . . . . .	22	9	12 997	81 454	9 219	18 001	50 962	124 971	7 478	8 135	80 115
	ILLINOIS . . . . .	83	46	43 563	275 594	27 129	52 736	150 109	512 836	20 056	50 143	475 766
	MICHIGAN . . . . .	25	9	1 973	13 574	1 139	2 534	7 258	18 312	(D)	(D)	(D)
	WISCONSIN . . . . .	14	8	9 310	64 841	4 683	9 425	25 536	106 086	(D)	(D)	(D)
	WEST NORTH CENTRAL . . . . .	38	24	25 838	166 363	14 354	29 203	76 050	293 116	11 669	(D)	(D)
	SOUTH . . . . .	168	100	71 023	476 196	40 198	81 503	207 477	831 341	33 403	28 270	268 726
	SOUTH ATLANTIC . . . . .	102	65	48 471	334 734	26 480	53 244	141 572	549 141	19 763	(D)	(D)
	MARYLAND . . . . .	29	20	22 441	163 097	11 942	24 013	71 170	270 327	6 840	16 089	151 558
	FLORIDA . . . . .	42	23	10 074	77 379	5 203	10 792	28 574	112 889	5 596	1 255	10 627
	EAST SOUTH CENTRAL . . . . .	16	10	5 324	28 412	3 634	7 022	16 841	48 142	1 448	(D)	(D)
	TENNESSEE . . . . .	8	5	4 234	22 855	2 746	5 208	12 903	37 861	857	(D)	(D)
	WEST SOUTH CENTRAL . . . . .	50	25	17 228	113 050	10 084	21 237	49 064	234 058	12 192	(D)	(D)
	WEST . . . . .	309	161	102 401	779 677	52 693	107 615	332 670	1 220 855	45 791	29 107	257 968
	MOUNTAIN . . . . .	22	16	4 603	29 764	3 734	7 754	21 454	43 636	1 509	(D)	(D)
	COLORADO . . . . .	7	3	1 170	1 051	112	182	604	1 114	60	(D)	(D)
	NEW MEXICO . . . . .	3	3	254	1 312	194	319	833	2 066	204	(D)	(D)
	PACIFIC . . . . .	287	145	97 798	749 913	48 959	99 861	311 216	1 177 219	44 282	(D)	(D)
	WASHINGTON . . . . .	15	5	954	6 858	542	1 056	2 244	9 680	279	(D)	(D)
	CALIFORNIA . . . . .	267	138	96 738	742 467	48 338	98 662	308 606	1 166 416	43 963	27 219	239 802
367	ELECTRONIC COMPONENTS, TOTAL . . . . .	2 291	1 150	288 527	1 535 747	210 906	417 151	920 686	2 508 117	175 943	197 910	1 433 885
	NORTHEAST . . . . .	1 005	534	141 355	766 208	101 562	198 217	445 145	1 236 923	83 570	112 515	789 700
	NEW ENGLAND . . . . .	305	170	49 324	246 198	36 259	70 378	150 944	376 908	17 531	38 098	232 642
	NEW HAMPSHIRE . . . . .	18	11	4 795	20 132	4 060	7 774	14 900	30 133	1 678	3 064	16 488
	MASSACHUSETTS . . . . .	183	98	28 953	146 408	20 865	41 120	89 331	225 896	10 076	29 333	179 313
	RHODE ISLAND . . . . .	14	11	1 830	7 313	1 371	2 612	4 011	20 917	547	374	2 000
	CONNECTICUT . . . . .	81	43	11 403	60 880	8 147	15 092	35 303	85 489	4 752	4 566	30 996

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
367	ELECTRONIC COMPONENTS—CONTINUED											
	MIDDLE ATLANTIC	700	364	92 031	520 010	65 303	127 839	294 201	860 015	65 939	74 417	557 058
	NEW YORK	297	158	35 201	204 564	23 663	47 026	103 858	314 878	27 978	23 243	178 809
	NEW JERSEY	256	123	24 595	139 414	17 983	34 590	81 675	216 049	10 468	24 093	168 096
	PENNSYLVANIA	147	83	32 235	176 032	23 657	46 223	108 668	329 088	27 593	27 081	210 153
	NORTH CENTRAL	497	286	59 608	277 949	47 153	92 664	187 815	476 696	24 669	46 658	330 107
	EAST NORTH CENTRAL	398	235	49 726	235 503	39 494	77 546	159 829	388 431	21 458	39 995	284 553
	OHIO	72	36	9 435	47 362	7 068	14 412	33 063	78 943	2 822	7 695	57 018
	INDIANA	48	31	10 917	54 353	9 139	18 185	40 331	93 940	4 718	10 295	77 811
	ILLINOIS	198	132	23 525	105 651	18 613	36 097	68 320	163 169	12 216	17 321	112 928
	MICHIGAN	48	17	3 047	13 734	2 522	4 940	9 632	28 938	811	2 281	22 891
	WISCONSIN	32	19	2 802	14 403	2 152	3 912	8 483	23 891	891	2 403	13 905
	WEST NORTH CENTRAL	99	51	9 882	42 446	7 659	15 118	27 986	88 265	3 211	6 663	45 554
	MINNESOTA	40	22	2 412	11 956	1 861	3 736	8 128	29 966	994	1 796	12 449
	IOWA	14	11	3 205	13 787	2 615	4 937	9 776	32 481	793	1 794	17 255
	MISSOURI	18	7	819	2 997	710	1 405	2 314	5 194	228	1 108	4 814
	KANSAS	13	6	1 736	6 997	1 363	2 780	4 463	8 453	795	(D)	(D)
	SOUTH	238	98	34 630	167 753	27 371	55 417	114 957	284 951	14 703	17 019	138 740
	SOUTH ATLANTIC	135	69	17 639	80 165	14 096	27 723	57 125	140 086	8 765	6 417	39 601
	MARYLAND	25	9	1 187	5 943	813	1 644	3 884	10 368	812	377	(D)
	VIRGINIA	16	10	5 870	30 977	4 784	9 166	23 391	49 363	2 832	(D)	(D)
	WEST VIRGINIA	4	3	905	3 800	719	1 424	2 419	5 354	136	(D)	(D)
	SOUTH CAROLINA	6	4	3 586	13 527	2 806	5 399	8 750	20 393	1 751	(D)	(D)
	GEORGIA	9	2	1 139	603	119	247	455	1 445	90	(D)	(D)
	FLORIDA	53	25	2 218	11 389	1 735	3 592	7 747	19 201	1 419	1 121	8 190
	EAST SOUTH CENTRAL	41	16	7 397	34 087	6 097	11 988	24 239	62 591	2 467	6 189	47 425
	ALABAMA	11	3	921	4 252	677	1 479	2 768	9 021	855	2 099	17 709
	WEST SOUTH CENTRAL	62	13	9 594	53 501	7 178	15 706	33 593	82 274	3 471	4 413	51 714
	WEST	550	231	52 841	323 078	34 784	70 761	172 084	524 193	52 963	21 718	175 338
	MOUNTAIN	44	17	6 803	37 171	3 831	7 902	15 683	57 184	(D)	1 490	8 461
	COLORADO	9	4	257	1 032	226	491	819	1 235	110	121	401
	ARIZONA	19	7	5 776	32 456	3 068	6 087	12 000	48 687	(D)	737	3 295
	UTAH	5	3	622	3 085	432	1 123	2 448	6 229	208	(D)	(D)
	PACIFIC	506	214	46 038	285 907	30 953	62 859	156 401	467 009	(D)	20 228	166 877
	WASHINGTON	9	2	151	1 251	103	203	640	1 779	56	30	163
	CALIFORNIA	489	211	45 845	284 430	30 816	62 585	155 624	464 833	(D)	19 956	164 866
369	ELECTRICAL PRODUCTS, NEC, TOTAL	888	383	83 708	494 515	65 281	132 379	347 183	1 042 356	36 993	76 664	711 043
	NORTHEAST	298	138	21 456	114 786	16 294	32 143	76 260	233 660	7 973	23 563	190 711
	NEW ENGLAND	71	37	5 634	30 312	4 187	8 198	18 638	58 926	2 854	4 525	35 731
	MASSACHUSETTS	35	20	2 933	15 799	2 138	4 103	9 213	29 482	1 139	(D)	(D)
	CONNECTICUT	26	11	1 674	9 553	1 179	2 400	5 597	16 364	1 288	(D)	(D)
	MIDDLE ATLANTIC	227	101	15 822	84 474	12 107	23 945	57 622	174 734	5 119	19 038	154 980
	NEW YORK	114	55	7 117	33 864	5 389	10 636	20 929	69 619	2 194	11 238	84 058
	NEW JERSEY	61	24	4 140	23 343	3 330	6 669	17 618	48 110	1 036	3 410	29 345
	PENNSYLVANIA	52	22	4 565	27 267	3 388	6 640	19 075	57 005	1 889	4 390	41 577
	NORTH CENTRAL	250	146	49 389	307 588	39 479	80 633	224 388	643 064	19 295	43 630	424 250
	EAST NORTH CENTRAL	201	120	45 573	287 347	36 320	74 330	208 575	588 844	18 205	40 274	397 559
	OHIO	38	26	9 168	54 653	7 068	14 027	35 702	118 072	4 497	12 482	137 328
	INDIANA	27	20	18 692	132 224	15 730	33 350	104 927	253 199	6 956	(D)	(D)
	ILLINOIS	74	37	6 419	32 826	4 770	9 314	21 045	72 097	2 490	4 609	43 560
	MICHIGAN	41	19	6 665	40 976	5 638	11 614	32 852	89 037	3 019	3 424	37 122
	WISCONSIN	21	18	4 629	26 668	3 114	6 025	14 049	56 439	1 243	(D)	(D)
	WEST NORTH CENTRAL	49	26	3 816	20 241	3 159	6 303	15 813	54 220	1 090	3 356	26 691
	MINNESOTA	14	7	748	3 267	646	1 153	2 677	10 349	313	477	2 993
	MISSOURI	18	10	1 437	7 171	1 108	2 230	5 162	16 700	229	(D)	(D)
	SOUTH AND WEST	340	99	12 683	72 141	9 508	19 603	46 535	165 632	9 725	7 758	82 990
	VIRGINIA	6	3	129	548	107	225	427	1 917	13	(D)	(D)
	NORTH CAROLINA	17	8	2 047	10 425	1 595	3 274	7 213	36 214	1 866	(D)	(D)
	GEORGIA	13	6	578	3 253	489	991	2 681	10 528	298	564	6 868
	FLORIDA	34	10	1 952	11 855	1 095	2 301	5 311	13 516	(D)	1 317	9 110
	KENTUCKY	9	4	387	1 768	330	666	1 390	3 715	(D)	(D)	(D)
	MISSISSIPPI	3	3	132	496	111	225	370	1 147	27	(D)	(D)
	TEXAS	35	9	1 209	6 385	1 006	2 059	4 848	14 957	1 589	1 101	10 802
	COLORADO	8	4	213	1 263	177	358	1 040	3 608	477	133	1 838
	OREGON	12	4	359	2 207	243	460	1 292	4 285	170	132	1 314
	CALIFORNIA	140	33	3 530	21 059	2 649	5 342	13 843	42 050	1 276	(D)	(D)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

TABLE 3. Detailed Statistics: 1963

Item	Electrical machinery (SIC 36)	Electric distribution products (SIC 361)	Electric industrial apparatus (SIC 362)	Household appliances (SIC 363)	Lighting and wiring devices (SIC 364)	Radio and TV receiving equipment (SIC 365)	Communication equipment (SIC 366)	Electronic components (SIC 367)	Electrical products, n.e.c. (SIC 369)
ESTABLISHMENTS, TOTAL . . . . . NUMBER . .	9 948	1 137	1 244	700	1 951	515	1 222	2 291	898
WITH 1 TO 19 EMPLOYEES. . . . . DO. .	5 226	615	658	361	1 138	277	531	1 141	505
WITH 20 TO 99 EMPLOYEES . . . . . DO. .	2 630	296	306	159	547	121	344	624	233
WITH 100 EMPLOYEES OR MORE. . . . . DO. .	2 092	226	280	180	266	117	347	526	150
PROPRIETORS AND WORKING PARTNERS. . . . . DO. .	2 491	267	220	150	643	123	189	565	334
ALL EMPLOYEES (AVERAGE FOR THE YEAR). . . . . DO. .	1 511 819	132 125	160 953	145 855	132 984	90 818	476 849	288 527	83 708
PAYROLL (ALL EMPLOYEES), TOTAL FOR YEAR \$1,000. .	9 284 279	822 019	1 004 907	863 963	709 630	458 905	3 394 593	1 535 747	494 515
PRODUCTION WORKERS:									
AVERAGE FOR THE YEAR. . . . . NUMBER . .	1 049 357	91 840	116 890	116 147	104 508	74 104	269 681	210 906	65 281
MARCH . . . . . DO. .	1 047 935	91 226	117 066	112 434	103 186	66 639	282 028	210 774	64 582
MAY . . . . . DO. .	1 036 830	91 204	117 489	112 365	102 040	69 472	267 940	211 066	65 254
AUGUST. . . . . DO. .	1 047 495	92 263	115 689	116 245	105 273	78 635	265 395	210 462	63 533
NOVEMBER. . . . . DO. .	1 065 456	92 731	117 317	123 545	107 736	81 663	263 370	211 330	67 764
MAN-HOURS . . . . . \$1,000. .	2 090 531	183 688	236 294	229 001	206 705	143 485	541 828	417 151	132 379
JANUARY-MARCH . . . . . DO. .	528 263	45 956	59 529	56 634	50 504	32 149	144 445	105 798	33 248
APRIL-JUNE. . . . . DO. .	528 992	46 600	60 189	56 521	51 918	34 496	139 303	106 670	33 295
JULY-SEPTEMBER. . . . . DO. .	499 507	44 625	56 583	54 895	49 934	37 322	125 384	99 802	30 962
OCTOBER-DECEMBER. . . . . DO. .	533 854	46 507	59 996	60 967	54 349	39 518	132 696	104 881	34 940
WAGES . . . . . \$1,000. .	5 405 786	484 186	640 570	613 844	487 642	322 263	1 589 412	920 686	347 183
COST OF MATERIALS, ETC., TOTAL <sup>1</sup> . . . . . DO. .	12 942 644	1 034 627	1 276 219	2 089 219	1 268 752	1 443 499	3 527 069	1 403 403	899 856
MATERIALS, PARTS, CONTAINERS, AND SUPPLIES CONSUMED. . . . . DO. .	11 708 631	942 108	1 172 504	1 915 685	1 151 629	1 384 512	3 123 719	1 210 358	808 116
COST OF REALES. . . . . DO. .	711 479	62 285	44 968	127 363	76 389	36 384	186 139	106 195	71 756
FUELS CONSUMED. . . . . DO. .	70 926	5 525	12 900	14 513	9 133	3 252	10 921	9 462	5 220
ELECTRIC ENERGY:									
PURCHASED:									
QUANTITY. . . . . MILLION KW.-HRS. .	12 792	1 086	2 427	1 772	1 005	472	2 720	2 355	955
COST. . . . . \$1,000. .	147 178	12 473	23 071	20 151	13 911	6 161	31 985	29 063	10 363
GENERATED LESS SOLD . . . . MILLION KW.-HRS. .	16 433	2 439	2 399	2 375	(0)	(0)	(0)	2 833	1 339
CONTRACT WORK . . . . . \$1,000. .	304 423	12 230	22 763	11 507	17 702	13 190	174 305	48 325	4 401
VALUE OF SHIPMENTS (INCLUDING REALES), TOTAL <sup>1</sup> . . . . . DO. .	29 840 182	2 565 859	3 153 942	4 118 406	2 829 032	2 435 051	8 881 958	3 909 772	1 946 162
VALUE OF REALES. . . . . DO. .	927 958	82 500	66 320	167 423	98 217	44 978	217 868	139 673	110 982
VALUE ADDED BY MANUFACTURE, ADJUSTED. . . . . DO. .	17 010 665	1 534 661	1 889 181	2 097 915	1 559 630	1 037 342	5 341 463	2 508 117	1 042 356
MANUFACTURERS' INVENTORIES:									
BEGINNING OF YEAR, TOTAL. . . . . DO. .	5 148 799	520 475	593 094	625 091	417 766	335 241	1 724 531	665 241	267 360
FINISHED PRODUCTS . . . . . DO. .	1 358 692	135 312	156 190	315 062	189 796	136 383	167 402	172 368	86 179
WORK-IN-PROCESS . . . . . DO. .	2 437 313	224 476	255 816	150 460	104 785	90 899	1 224 657	292 376	93 844
MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO. .	1 352 794	160 687	181 088	159 569	123 185	107 959	332 472	200 497	87 337
END OF YEAR, TOTAL. . . . . DO. .	5 239 708	526 724	590 188	716 085	421 910	401 233	1 663 346	660 914	259 308
FINISHED PRODUCTS . . . . . DO. .	1 453 815	133 788	154 460	366 539	187 629	182 566	170 451	174 376	84 006
WORK-IN-PROCESS . . . . . DO. .	2 462 976	229 544	266 471	167 711	107 272	94 642	1 214 057	292 116	91 163
MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO. .	1 322 924	163 392	169 257	181 835	127 016	124 025	278 838	194 422	84 139
EXPENDITURES FOR PLANT AND EQUIPMENT, TOTAL DO. .	750 251	52 836	80 344	79 276	66 247	40 064	206 780	185 342	39 362
NEW, TOTAL. . . . . DO. .	701 947	50 548	72 031	71 252	62 104	39 215	193 861	175 943	36 993
NEW STRUCTURES AND ADDITIONS TO PLANT . . . . . DO. .	176 031	12 570	14 944	14 026	15 292	14 756	49 495	46 467	8 481
NEW MACHINERY AND EQUIPMENT . . . . . DO. .	525 916	37 978	57 087	57 226	46 812	24 459	144 366	129 476	28 512
USED PLANT AND EQUIPMENT. . . . . DO. .	48 304	2 288	8 313	8 024	4 143	849	12 919	9 399	2 369
SELECTED OPERATING RATIOS:									
PAYROLL/TOTAL EMPLOYMENT. . . . .	6 141	6 222	6 243	5 923	5 336	5 053	7 119	5 323	5 908
PRODUCTION WORKERS/TOTAL EMPLOYMENT . . . . .	.69	.70	.73	.80	.79	.82	.57	.73	.78
MAN-HOURS/PRODUCTION WORKERS. . . . .	1 992	2 000	2 022	1 972	1 978	1 936	2 009	1 978	2 028
PRODUCTION WORKER WAGES/MAN-HOURS . . . . .	2.59	2.64	2.71	2.68	2.36	2.25	2.93	2.21	2.62
COST OF MATERIALS AND PAYROLLS/TOTAL VALUE OF SHIPMENTS. . . . .	.74	.72	.72	.72	.70	.78	.78	.75	.72
COST OF MATERIALS/TOTAL VALUE OF SHIPMENTS. . . . .	.43	.40	.40	.51	.45	.59	.40	.36	.46
ADJUSTED VALUE ADDED/TOTAL EMPLOYMENT . . . . .	11 252	11 615	11 737	14 384	11 728	11 422	11 202	8 693	12 452
SALARIES AND WAGES/ADJUSTED VALUE ADDED . . . . .	.55	.54	.53	.41	.45	.44	.64	.61	.47

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry. For a more complete explanation, see Introduction.





## ELECTRICAL TRANSMISSION, DISTRIBUTION, AND INDUSTRIAL APPARATUS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3611—Electric Measuring Instruments and Test Equipment
- 3612—Power, Distribution, and Specialty Transformers
- 3613—Switchgear and Switchboard Apparatus
- 3621—Motors and Generators
- 3622—Industrial Controls
- 3623—Welding Apparatus
- 3624—Carbon and Graphite Products
- 3629—Electrical Industrial Apparatus, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

In addition to the 1963 Census of Manufactures product statistics shown in table 6A, detail as published in the 1963 Current Industrial Reports Series are also shown.

### 3611—ELECTRIC MEASURING INSTRUMENTS AND TEST EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing pocket, portable, panelboard, and graphic recording instruments for measuring electricity such as voltmeters, ammeters, watt meters, watthour meters, demand meters, and other meters and indicating instruments. This industry also includes establishments primarily engaged in manufacturing analyzers for testing the electrical characteristics of internal combustion engines, radio apparatus, etc. For a detailed list of products of industry 3611, refer to table 6A, product codes 3611110 to 3611385.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Electric Measuring Instruments Industry totaled \$749 million. This amount included shipments of electric measuring instruments (primary products) valued at \$588 million, shipments of other products (secondary products) valued at \$112 million, and miscellaneous receipts (mainly resales) at \$48 million.



This industry's shipments of electric measuring instruments represented 84 percent of its total product shipments. The industry specialization ratio in 1958 was 74 percent. Secondary products shipped by this industry in 1963 consisted mainly of other electronic components and accessories, n.e.c. (\$18 million), and electronic military, industrial, and commercial equipment, n.e.c. (\$10 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 45 percent of the total industry shipments are represented by plants specializing in product class 36112, Test equipment for testing electrical, radio, and communication circuits and motors.

Shipments of electric measuring instruments by this industry represented 78 percent of all shipments of these products (\$756 million) by all industries. In 1958 the coverage ratio was 81 percent. Other industries shipping electric measuring instruments consisted mainly of industry 3662, Radio, TV Communications Equipment, \$33 million; and industry 3821, Mechanical Measuring Devices, \$22 million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3611, e.g., 36111, Integrating instruments, electrical, 96 percent; 36113, Other electrical measuring instruments, 71 percent; and 36110, Electrical measuring instruments, n.s.k., 97 percent.

#### 3612—POWER, DISTRIBUTION, AND SPECIALTY TRANSFORMERS

This industry comprises establishments primarily engaged in manufacturing power, distribution, and specialty transformers. Establishments primarily engaged in manufacturing radio frequency or voice frequency transformers, coils, or chokes are classified in industry 3679, and resistor welding transformers in industry 3623. For a detailed list of products of industry 3612, refer to table 6A, product codes 3612111 to 3612384.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Transformers Industry totaled \$723 million. This amount included shipments of power, distribution, and specialty transformers (primary products) valued at \$652 million, shipments of other products (secondary products) valued at \$58 million, and miscellaneous receipts (mainly resales) at \$12 million.

This industry's shipments of transformers represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 94 percent. Secondary products shipped by this industry in 1963 consisted mainly of other electrical measuring instruments (\$10 million), and coils, transformers, reactors, and chokes for electronic applications (\$4 million).

Shipments of transformers by this industry represented 94 percent of all shipments of these products (\$692 million) by all industries. In 1958 the coverage ratio was 93 percent. Other industries shipping transformers consisted mainly of industry 3642, Lighting Fixtures, \$6 million.

The production index for the primary products of the industry increased to 125 in 1963 from the 1958 level of 88. The unit value index for 1963 was 89 compared to 114 in 1958. Both indexes were computed on a basis of 1954 = 100.

### 3613—SWITCHGEAR AND SWITCHBOARD APPARATUS

This industry comprises establishments primarily engaged in manufacturing switchgear and switchboard apparatus. Important products of this industry include power switches, circuit breakers, power switching equipment, and similar switchgear for general industrial application; switchboards and cubicles, control and metering panels, power fuse mountings, and similar switchboard apparatus and supplies. Establishments primarily engaged in manufacturing industrial controls are classified in industry 3622, and those manufacturing current carrying wiring devices in industry 3643. For a detailed list of products of industry 3613, refer to table 6A, product codes 3613111 to 3613493.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Switchgear and Switchboards Industry totaled \$1,094 million. This amount included shipments of switchgear and switchboard apparatus (primary products) valued at \$897 million, shipments of other products (secondary products) valued at \$136 million, and miscellaneous receipts (mainly resales) at \$61 million.

This industry's shipments of switchgear and switchboard apparatus represented 87 percent of its total product shipments. The industry specialization ratio in 1958 was 80 percent. Secondary products shipped by this industry in 1963 consisted mainly of general industry power circuit devices and controls (\$67 million), current carrying wiring devices, including lightning rods and electric conduit and conduit fittings (\$6 million each).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 46 percent of the total industry shipments are represented by plants specializing in product class 36131, Switchgear, including power switchgear assemblies and other switching and interrupting devices 2300 volts and over; and 29 percent in product class 36133, Low voltage panelboards and distribution boards and switching and interrupting devices 750 volts and under.

Shipments of switchgear and switchboards by this industry represented 89 percent of all shipments of these products (\$1,008 million) by all industries. In 1958 the coverage ratio was 90 percent. Other industries shipping switchgear and switchboard apparatus consisted mainly of industry 3622, Industrial Controls, \$28 million; and industry 3643, Current Carrying Devices, \$10-\$20 million.

The production index for the primary products of the industry increased to 125 in 1963 from the 1958 level of 109. The unit value index for 1963 was 112 compared to 113 in 1958. Both indexes were computed on a basis of 1954 = 100.

### 3621—MOTORS AND GENERATORS

This industry comprises establishments primarily engaged in manufacturing electric motors (except starting motors) and power generators; motor generator sets; railway motors and control equipment; and motors, generators, and control equipment for gasoline electric and oil electric busses and trucks. Establishments primarily engaged in manufacturing turbo-generators are classified in industry 3611, and starting motors and battery charging generators for internal combustion engines in industry 3694. For a detailed list of products of industry 3621, refer to table 6A, product codes 3621101 to 3621611.



The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Motors and Generators Industry totaled \$1,710 million. This amount included shipments of motors and generators (primary products) valued at \$1,332 million, shipments of other products (secondary products) valued at \$308 million, and miscellaneous receipts (mainly resales) at \$70 million.

This industry's shipments of motors and generators represented 81 percent of its total product shipments. The industry specialization ratio in 1958 was 83 percent. Secondary products shipped by this industry in 1963 consisted mainly of speed changers, industrial high speed drivers, and gears (\$22 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 46 percent of the total industry shipments are represented by plants specializing in product class 36211, Fractional horsepower motors; and 32 percent in 36212, Integral horsepower motors and generators, except land transportation.

Shipments of motors and generators by this industry represented 84 percent of all shipments of these products (\$1,578 million) by all industries. In 1958 the coverage ratio was 85 percent.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3621, e.g., Fractional horsepower motors, 91 percent; Integral horsepower motors and generators, except land transportation, 92 percent; Land transportation motors, generators, and control equipment and parts, and Prime moving generator sets, except steam or hydraulic turbines, combined, 40 percent; and Motor generators and other rotating equipment, 92 percent.

#### 3622—INDUSTRIAL CONTROLS

This industry comprises establishments primarily engaged in manufacturing motor starters and controllers, control accessories, electronic controls, and other industrial controls. Establishments primarily engaged in manufacturing automatic temperature controls are classified in industry 3822. For a detailed list of products of industry 3622, refer to table 6A, product codes 3622012 to 3622099.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Industrial Controls Industry totaled \$649 million. This amount included shipments of industrial controls (primary products) valued at \$500 million, shipments of other products (secondary products) valued at \$129 million, and miscellaneous receipts (mainly resales) at \$19 million.

This industry's shipments of industrial controls represented 79 percent of its total product shipments. The industry specialization ratio in 1958 also was 79 percent. Secondary products shipped by this industry in 1963 consisted mainly of resistors for electronic application (\$57 million), and switchgear, including power switchgear assemblies and other switching and interrupting devices 2300 volts and over (\$23 million).

Shipments of industrial controls by this industry represented 79 percent of all shipments of these products (\$633 million) by all industries. In 1958 the coverage ratio was 70 percent. Other industries shipping industrial controls consisted mainly of industry

3613, Switchgear and Switchboards, \$67 million; and industry 3822, Automatic Temperature Controls, \$13 million.

#### 3623--WELDING APPARATUS

This industry comprises establishments primarily engaged in manufacturing welding apparatus and accessories. Establishments which coat only and those which draw the wire and coat it are also included. Establishments primarily engaged in manufacturing gas welding apparatus are classified in industry 3548. For a detailed list of products of industry 3623, refer to table 6A, product codes 3623111 to 3623381.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Electric Welding Apparatus Industry totaled \$330 million. This amount included shipments of electric welding apparatus (primary products) valued at \$288 million, shipments of other products (secondary products) valued at \$20 million, and miscellaneous receipts (mainly resales) at \$22 million.

This industry's shipments of electric welding apparatus represented 93 percent of its total product shipments. The industry specialization ratio in 1958 also was 93 percent. Secondary products shipped by this industry in 1963 consisted mainly of essential oils, fireworks, and pyrotechnics and chemicals and chemical preparations, n.e.c. (\$5-\$10 million).

While the primary products of the industry represent more than one class of products, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 53 percent of the total industry shipments are represented by plants specializing in product class 36232, Arc welding electrodes, metal.

Shipments of electric welding apparatus by this industry represented 89 percent of all shipments of these products (\$325 million) by all industries. In 1958 the coverage ratio was 92 percent. Other industries shipping electric welding apparatus consisted mainly of industry 3621, Motors and Generators, \$5-\$10 million.

The production index for the primary products of the industry increased to 154 in 1963 from the 1958 level of 113. The unit value index for 1963 was 132 compared to 129 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3624--CARBON AND GRAPHITE PRODUCTS

This industry comprises establishments primarily engaged in manufacturing lighting carbons; carbon, graphite, and metal graphite brushes and brush stock; carbon or graphite electrodes for thermal and electrolytic uses; and other carbon, graphite, and metal graphite products for use in the electrical industries. For a detailed list of products of industry 3624, refer to table 6A, product codes 3624011 to 3624089.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Carbon and Graphite Products Industry totaled \$227 million. This amount included shipments of carbon and graphite products (primary products) valued at \$209 million, shipments of other products (secondary products) valued at \$16 million, and miscellaneous receipts (mainly resales) at \$2 million.



This industry's shipments of carbon and graphite products represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 97 percent. Secondary products shipped by this industry in 1963 consisted mainly of resistors for electronic applications (\$2-\$5 million).

Shipments of carbon and graphite products by this industry represented 96 percent of all shipments of these products (\$218 million) by all industries. In 1958 the coverage ratio was 95 percent. Other industries shipping carbon and graphite products consisted mainly of industry 3621, Motors and Generators (over \$2 million); and industry 3694, Engine Electrical Equipment (\$2-\$5 million).

#### 3629—ELECTRICAL INDUSTRIAL APPARATUS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing industrial and commercial electric apparatus and equipment, n.e.c., such as blasting machines, fixed and variable capacitors and condensers, and rectifiers for industrial applications. Establishments primarily engaged in manufacturing fixed and variable capacitors and condensers for electronic end products are classified in industry 3679 and rectifiers for electronic end products in industry 3674. For a detailed list of products of industry 3629, refer to table 6A, product codes 3629111 to 3629398.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Electric Industrial Goods, N.E.C., Industry totaled \$238 million. This amount included shipments of electric industrial goods, n.e.c. (primary products) valued at \$180 million, shipments of other products (secondary products) valued at \$46 million, and miscellaneous receipts (mainly resales) at \$12 million.

This industry's shipments of electric industrial goods, n.e.c., represented 80 percent of its total product shipments. The industry specialization ratio in 1958 was 71 percent. Secondary products shipped by this industry in 1963 consisted mainly of coils, transformers, reactors, and chokes for electronic applications (\$2 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 22 percent of the total industry shipments are represented by plants specializing in product class 36291, Capacitors for industrial use (except for electronic applications); 26 percent in 36292, Rectifying apparatus; and 48 percent in 36293, Other electrical equipment for industrial use.

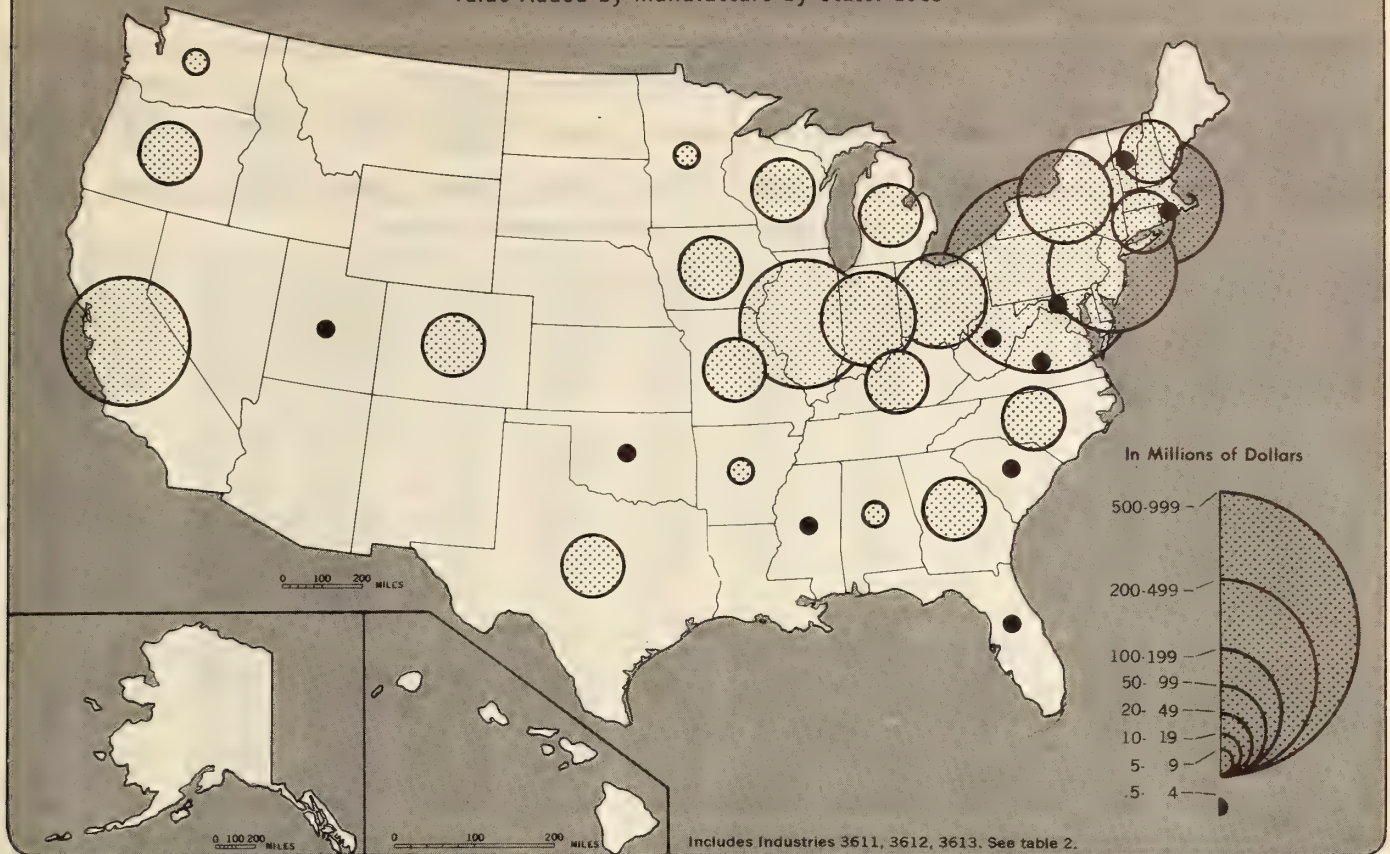
Shipments of electric industrial goods, n.e.c., by this industry represented 72 percent of all shipments of these products (\$250 million) by all industries. In 1958 the coverage ratio was 73 percent. Other industries shipping electrical industrial goods, n.e.c., consisted mainly of industry 3622, Industrial Controls, \$4 million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3629, e.g., product class 36292, Rectifying apparatus, 57 percent; and, product class 36293, Other electrical equipment for industrial use, 80 percent.



# ELECTRIC DISTRIBUTION PRODUCTS: SIC 361

Value Added by Manufacture by State: 1963

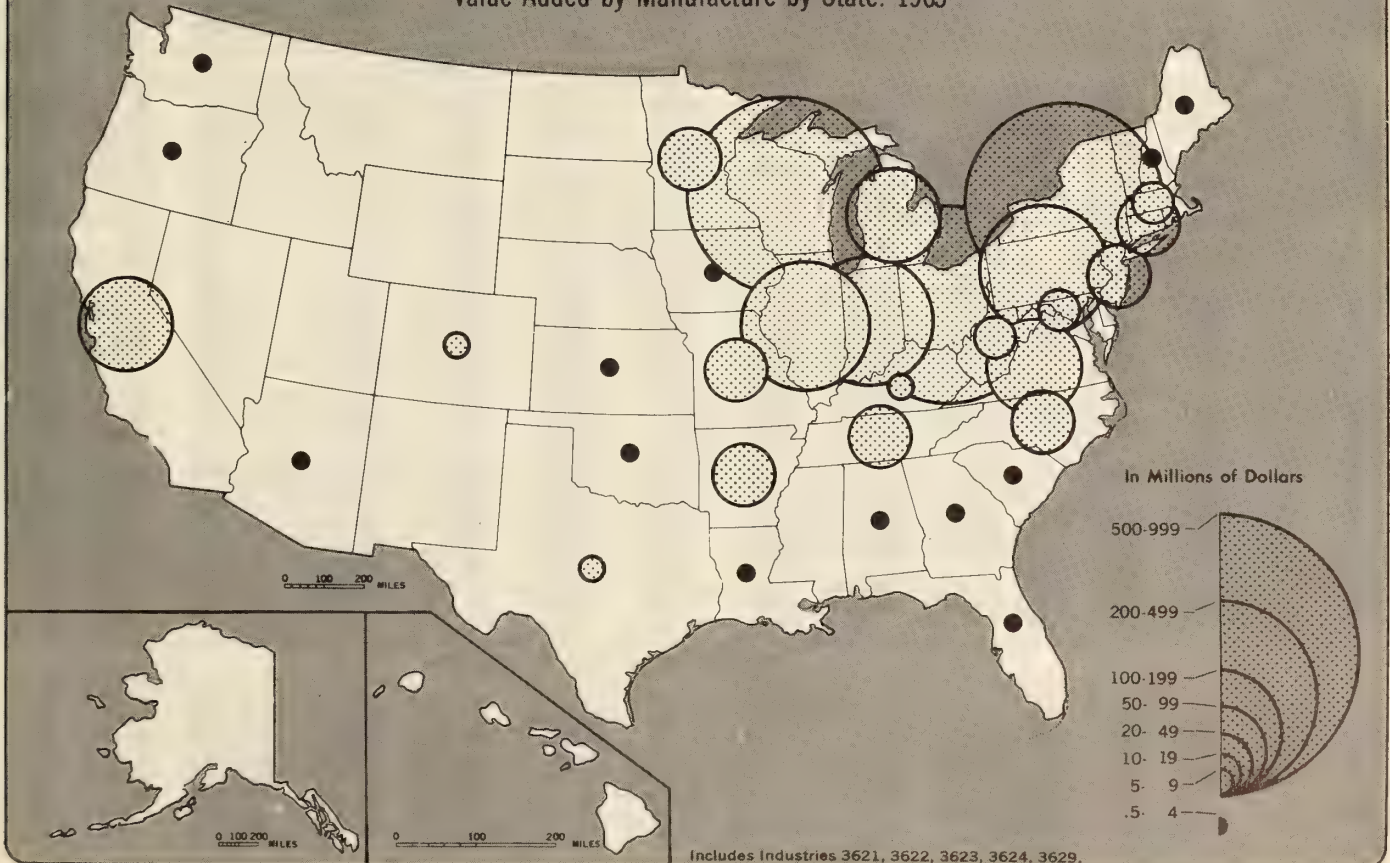


U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

# ELECTRIC INDUSTRIAL APPARATUS: SIC 362

Value Added by Manufacture by State: 1963



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS



TABLE 1. General Statistics: 1963 and Earlier Years

Year	Companies (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)	Specialization ratio (per-cent)	Coverage ratio (per-cent)
		Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3611.—ELECTRIC MEASURING INSTRUMENTS														
1963.....	536	560	209	44,715	273,645	30,109	59,905	149,616	505,309	245,417	749,220	19,207	84	78
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	59,512	339,956	42,605	88,978	205,229	588,690	800,812	879,561	22,642	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	57,679	335,864	40,343	82,459	194,634	558,020	285,471	830,937	22,801	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	51,847	300,393	36,823	74,933	179,339	514,433	278,032	795,039	25,317	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	50,031	281,527	36,266	74,150	173,323	509,865	270,991	770,613	22,044	(NA)	(NA)
1958.....	476	492	200	46,923	254,833	31,702	63,646	147,165	419,396	235,188	673,522	19,421	74	81
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	38,743	187,849	28,105	55,396	114,736	340,714	151,652	467,406	13,122	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	34,767	160,868	25,216	49,738	95,677	272,856	126,187	386,738	11,168	(NA)	(NA)
1954 <sup>2</sup> .....	299	303	143	33,049	145,131	24,223	47,679	90,873	245,588	114,127	368,186	20,926	75	76
1953 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	38,115	161,151	29,393	59,722	108,551	272,026	118,746	390,772	(NA)	(NA)	(NA)
1952 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	30,545	121,926	23,646	48,436	85,246	202,182	96,824	299,006	(NA)	(NA)	(NA)
1951 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	25,414	98,880	19,635	(NA)	69,527	153,705	79,391	233,096	(NA)	(NA)	(NA)
1950 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	19,143	65,544	14,263	28,642	43,357	113,314	52,530	165,844	(NA)	(NA)	(NA)
1949 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	16,180	53,490	11,403	22,726	34,748	87,612	36,013	123,625	(NA)	(NA)	(NA)
1947 <sup>2</sup> .....	150	154	58	20,926	60,661	16,086	32,576	42,326	103,946	49,434	153,380	(NA)	(NA)	(NA)
1939 <sup>2</sup> .....	(NA)	59	(NA)	9,318	15,223	6,976	(NA)	9,881	29,693	12,104	41,797	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	33	(NA)	(NA)	(NA)	6,935	(NA)	10,102	30,159	10,257	40,416	(NA)	(NA)	(NA)
INDUSTRY 3612.—TRANSFORMERS														
1963.....	144	177	99	33,365	209,514	23,640	46,873	129,628	381,514	337,001	722,896	13,161	92	94
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	35,075	215,228	24,590	49,078	133,946	400,762	345,850	740,359	22,594	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	34,857	207,363	23,522	46,180	128,146	402,251	303,768	708,099	40,524	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	36,608	211,851	24,724	48,600	129,214	422,501	308,360	718,264	14,297	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	35,507	201,687	24,048	47,974	125,904	429,065	296,910	721,572	14,875	(NA)	(NA)
1958.....	157	175	82	34,601	186,361	22,578	45,112	108,592	364,212	256,870	642,267	13,816	94	93
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	48,075	242,191	34,165	69,964	156,732	499,091	357,542	861,960	15,997	89	94
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	46,725	228,908	34,579	69,767	154,283	451,468	365,312	785,126	24,429	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	40,066	190,907	28,493	59,412	124,764	380,977	295,897	664,751	17,131	(NA)	(NA)
1954 <sup>2</sup> .....	152	164	89	40,956	186,491	29,234	58,414	121,715	394,276	277,814	688,447	22,852	87	94
1953 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	45,358	202,003	33,111	69,013	136,278	410,783	301,207	711,990	(NA)	(NA)	(NA)
1952 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	37,374	165,643	26,623	55,266	110,766	357,832	253,355	610,968	(NA)	(NA)	(NA)
1951 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	37,335	152,257	27,170	(NA)	101,992	328,311	227,862	556,173	(NA)	(NA)	(NA)
1950 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	33,363	119,693	23,912	49,771	79,006	242,739	181,212	423,951	(NA)	(NA)	(NA)
1949 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	34,218	120,696	24,618	50,496	79,795	232,875	174,107	406,982	(NA)	(NA)	(NA)
1947 <sup>2</sup> .....	134	144	85	36,635	107,978	28,160	58,568	78,525	195,102	162,085	356,968	(NA)	(NA)	(NA)
1939 <sup>2</sup> .....	(NA)	47	(NA)	(NA)	(NA)	9,260	(NA)	14,064	38,898	32,711	71,609	(NA)	(NA)	(NA)
INDUSTRY 3613.—SWITCHGEAR AND SWITCHBOARDS														
1963.....	338	400	214	54,045	338,860	38,091	76,910	204,942	647,838	452,209	1,093,743	18,180	87	89
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	59,650	356,347	43,369	84,111	211,967	654,760	458,480	1,108,404	16,618	(X)	(X)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	57,138	336,346	41,099	80,988	197,817	606,624	430,446	1,039,332	15,575	(X)	(X)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	57,427	325,925	41,860	82,869	194,487	636,584	421,957	1,038,760	24,368	(X)	(X)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	57,132	319,349	41,726	82,472	190,224	638,834	429,478	1,047,620	(35,459)	(X)	(X)
1958 <sup>3</sup> .....	339	402	203	52,871	283,152	36,263	72,769	170,453	555,044	375,977	962,558	17,820	80	90
INDUSTRY 3622.—INDUSTRIAL CONTROLS														
1963.....	421	427	118	32,990	214,597	22,772	44,898	125,418	450,507	207,587	648,683	15,419	79	79
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	32,870	205,336	21,814	43,923	117,850	414,800	186,531	593,261	16,293	(X)	(X)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	31,635	192,320	20,301	40,301	105,951	388,190	171,068	548,283	17,698	(X)	(X)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	30,540	178,963	19,991	39,547	101,445	373,243	162,694	532,400	18,424	(X)	(X)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	28,227	165,574	19,190	38,744	97,893	349,843	152,959	496,681	9,796	(X)	(X)
1958 (new SIC) <sup>3</sup> .....	205	216	75	27,150	145,270	17,311	33,660	81,769	281,890	125,017	413,163	7,611	79	70
1958 (old SIC) <sup>3</sup> .....	(NA)	618	278	80,021	428,422	53,574	106,429	252,222	836,934	500,994	1,375,721	25,421	(NA)	(NA)
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	91,465	475,370	62,811	126,654	291,826	972,549	540,089	1,509,511	35,618	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	93,393	471,511	66,482	136,594	298,665	947,136	528,282	1,416,044	36,835	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	79,383	377,826	56,078	113,437	235,697	711,250	394,488	1,082,307	31,703	(NA)	(NA)
1954 <sup>2</sup> .....	389	452	246	79,314	361,398	56,183	111,372	228,245	687,308	396,238	1,096,715	31,478	89	91
1953 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	88,393	399,015	64,038	133,277	258,917	775,972	444,938	1,220,910	(NA)	(NA)	(NA)
1952 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	77,685	335,353	55,947	119,929	221,536	714,300	373,888	1,088,188	(NA)	(NA)	(NA)
1951 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	75,044	306,808	54,806	(NA)	205,718	577,916	383,200	961,116	(NA)	(NA)	(NA)
1950 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	65,060	246,105	48,567	96,977	155,305	417,333	291,774	709,107	(NA)	(NA)	(NA)
1949 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	67,115	232,798	47,813	104,069	146,368	441,927	218,867	660,794	(NA)	(NA)	(NA)
1947 <sup>2</sup> .....	(NA)	321	(NA)	67,461	204,081	49,690	(NA)	137,747	358,431	220,717	579,148	(NA)	(NA)	(NA)
1939 <sup>2</sup> .....	(NA)	217	(NA)	(NA)	(NA)	14,747	(NA)	20,345	71,830	39,477	111,309	(NA)	(NA)	(NA)
INDUSTRY 3621.—MOTORS AND GENERATORS														
1963.....	316	384	244	94,170	583,225	68,693	140,174	378,790	993,207	715,189	1,709,818	35,804	81	84
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	93,957	576,039	67,656	135,665	361,836	974,834	697,821	1,657,777	34,841	(X)	(X)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	95,880	570,497	67,669	133,259	349,174	933,140	640,946	1,567,328	29,417	(X)	(X)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	101,653	581,876	72,324	141,440	358,916	966,574	676,106	1,647,803	37,204	(X)	(X)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	99,621	557,603	71,272	142,823	350,341	975,821	663,812	1,614,704	31,948	(X)	(X)
1958.....	317	378	237	93,541	488,854	64,795	127,799	303,785	813,124	545,523	1,392,573	28,311	83	85
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	117,268	592,251	83,318	163,120	380,583	1,030,290	687,356	1,705,431	(S)	84	88
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	122,875	601,048	91,421	180,797	403,014	1,026,739	722,083	1,706,006	(S)	(NA)	(NA)

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new  (\$1,000)	Spec- ializa- tion ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3621.—MOTORS AND GENERATORS—Continued														
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	113,256	522,257	83,444	166,648	351,013	858,160	593,879	1,397,038	(S)	(NA)	(NA)
1954 <sup>2</sup> .....	266	309	217	112,003	494,556	82,420	161,343	334,271	817,601	597,352	1,453,713	38,310	82	8
1953 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	138,315	621,933	106,418	(NA)	445,310	1,075,379	737,234	1,812,613	(NA)	(NA)	(NA)
1952 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	132,307	576,136	100,060	(NA)	409,032	998,277	717,425	1,715,463	(NA)	(NA)	(NA)
1951 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	122,423	495,012	93,091	(NA)	345,462	827,837	632,537	1,460,374	(NA)	(NA)	(NA)
1950 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1949 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1947 <sup>2</sup> .....	224	253	(NA)	125,300	368,461	100,966	(NA)	279,175	564,218	431,661	995,640	(NA)	81	92
1939 <sup>2</sup> .....	(NA)	132	(NA)	(NA)	(NA)	44,423	(NA)	67,376	159,954	104,242	264,196	(NA)	(NA)	(NA)
INDUSTRY 3623.—ELECTRIC WELDING APPARATUS														
1963.....	133	149	75	9,629	72,113	6,565	14,075	44,617	162,411	168,553	330,227	5,364	93	89
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,092	75,179	6,510	13,782	40,796	135,546	171,659	308,559	4,727	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,662	73,266	6,912	13,848	38,942	129,534	163,371	294,372	(7,546)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,003	76,118	7,305	14,538	40,733	142,295	166,516	310,901	4,624	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,183	70,086	6,869	14,263	40,001	133,526	164,673	297,379	3,814	(NA)	(NA)
1958.....	123	135	70	9,895	60,761	6,392	12,746	33,048	112,709	135,219	247,739	4,330	93	92
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,054	67,922	6,614	14,517	38,150	135,732	159,133	291,419	(S)	94	94
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,187	67,796	6,999	15,488	39,745	140,904	153,869	284,864	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,912	53,941	6,042	13,095	31,180	108,650	119,180	222,423	(S)	(NA)	(NA)
1954 <sup>2</sup> .....	111	119	62	8,186	45,719	5,484	11,400	26,427	77,494	99,557	179,945	4,713	90	92
INDUSTRY 3624.—CARBON AND GRAPHITE PRODUCTS														
1963.....	40	53	40	10,123	61,984	7,963	16,104	44,068	141,423	84,758	226,889	11,441	93	96
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,706	56,489	7,254	14,627	37,978	128,402	70,074	196,490	10,931	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,239	52,323	6,886	13,511	34,917	113,946	66,323	182,887	5,499	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,602	52,756	7,275	14,086	35,835	120,794	66,721	184,147	7,007	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,938	53,625	7,662	15,389	37,416	118,143	70,171	193,120	(5,753)	(NA)	(NA)
1958.....	34	46	35	8,904	45,628	6,620	13,015	30,551	102,483	58,990	154,925	11,068	97	95
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,908	49,877	7,801	15,295	35,363	110,974	69,891	179,155	16,051	96	96
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,999	47,479	7,989	16,699	35,887	109,955	76,059	178,388	10,693	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,701	38,184	6,939	13,954	27,765	88,175	55,716	148,333	(S)	(NA)	(NA)
1954 <sup>2</sup> .....	43	53	31	8,297	35,976	6,352	12,600	24,190	64,579	48,712	111,718	6,492	98	94
1953 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	10,479	40,324	8,705	(NA)	31,744	72,282	71,017	143,299	(NA)	(NA)	(NA)
1952 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	10,251	37,809	8,596	(NA)	30,198	73,325	62,301	135,626	(NA)	(NA)	(NA)
1951 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	8,576	28,776	7,051	(NA)	21,854	59,387	41,167	100,554	(NA)	(NA)	(NA)
1949 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	7,494	22,742	6,096	(NA)	16,895	43,772	30,479	74,251	(NA)	(NA)	(NA)
1947 <sup>2</sup> .....	36	44	25	7,818	22,028	6,426	12,856	16,504	40,218	28,527	68,745	(NA)	95	95
1939 <sup>2</sup> .....	(NA)	31	(NA)	4,053	6,675	3,189	(NA)	4,484	11,694	6,682	18,376	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	30	(NA)	(NA)	(NA)	4,098	(NA)	5,776	14,315	9,075	23,390	(NA)	(NA)	(NA)
INDUSTRY 3629.—ELECTRIC INDUSTRIAL GOODS, N.E.C.														
1963.....	226	231	109	14,041	72,988	10,897	21,043	47,677	141,633	100,132	238,325	4,003	80	72
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,588	92,263	15,613	30,010	58,048	159,035	112,501	270,812	6,700	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,073	79,892	13,652	25,915	50,668	142,811	94,818	236,321	7,181	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,875	90,988	15,332	28,540	55,687	149,942	112,021	261,448	8,249	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,011	95,197	15,233	29,991	59,075	169,148	116,032	282,148	7,798	(NA)	(NA)
1958 (new SIC) <sup>4</sup> .....	273	286	111	16,842	78,595	11,888	23,619	47,011	137,547	93,079	228,929	8,467	71	73
1958 (old SIC) <sup>4</sup> .....	(NA)	334	136	17,592	80,744	12,488	24,837	47,959	139,101	95,372	231,959	8,565	(NA)	(NA)
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,618	91,013	16,787	32,831	54,148	163,357	119,267	282,809	9,874	82	60
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,450	82,671	15,883	31,561	51,717	165,410	118,305	275,354	8,335	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,996	64,582	13,420	26,096	42,314	123,072	94,044	212,848	6,267	(NA)	(NA)
1954 <sup>2</sup> .....	223	235	97	14,996	56,361	11,293	21,988	36,394	108,637	73,594	183,250	3,717	81	64
1953 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	11,863	44,185	9,244	18,326	30,267	83,371	51,294	134,665	(NA)	(NA)	(NA)
1952 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	9,660	37,577	6,780	13,905	22,066	69,589	43,747	113,336	(NA)	(NA)	(NA)
1951 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	10,008	33,519	7,937	16,195	23,515	64,572	45,155	109,727	(NA)	(NA)	(NA)
1950 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	10,043	29,458	8,263	16,976	21,569	48,803	34,222	83,025	(NA)	(NA)	(NA)
1949 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1947 <sup>2</sup> .....	191	194	(NA)	10,901	28,481	8,779	18,170	20,250	41,163	33,193	74,356	2,465	(NA)	(NA)
1939 <sup>2</sup> .....	(NA)	39	(NA)	(NA)	(NA)	907	(NA)	1,181	3,669	2,555	6,224	(NA)	(NA)	(NA)

See footnotes on next page.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

## Footnotes for Table 1-36A—Continued

NOTE: See introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Data for Alaska and Hawaii are not included.

<sup>3</sup>Industries 3613 and 3622 were single industry 3616 (old SIC) prior to 1958.

<sup>4</sup>A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so that the industry is not comparable. The 1957 and earlier figures are on the old SIC definition of the industry.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3611.—ELECTRIC MEASURING INSTRUMENTS													
Total.....	560	209	44,715	273,645	30,109	59,905	149,616	505,309	245,417	749,220	19,207	46,923	419,396
Northeast.....	232	86	14,010	84,602	9,599	19,111	46,415	150,348	71,749	223,248	5,234	19,608	160,720
Massachusetts....	35	11	2,520	17,913	1,398	2,836	7,309	31,642	14,257	46,097	922	5,240	49,541
Connecticut.....	18	7	693	4,022	478	985	2,195	5,498	3,956	9,475	168	518	4,198
New York.....	77	30	3,552	21,308	2,367	4,777	11,246	33,249	20,165	55,461	1,128	4,060	31,556
Pennsylvania.....	29	10	1,024	5,199	779	1,543	3,385	7,986	5,030	13,221	363	1,068	7,834
North Central.....	122	50	10,479	58,880	7,164	14,017	32,533	109,123	57,479	167,912	3,410	11,291	91,730
Ohio.....	34	16	3,003	16,499	2,012	3,930	8,276	30,803	17,509	48,155	744	2,359	17,140
Illinois.....	34	14	4,640	27,247	3,143	6,215	15,935	50,629	26,344	79,086	1,524	4,638	39,032
Wisconsin.....	9	4	516	3,018	322	603	1,263	4,248	1,849	6,354	203	531	3,694
South.....	67	21	4,213	22,387	2,897	6,037	12,931	43,059	25,319	68,571	1,681	2,166	22,294
West.....	139	52	16,013	107,776	10,449	20,740	57,737	202,779	90,870	289,489	8,882	13,858	144,652
California.....	119	41	9,177	67,776	6,265	13,068	37,552	129,719	57,688	186,946	3,596	11,354	113,597
INDUSTRY 3612.—TRANSFORMERS													
Total.....	177	99	33,365	209,514	23,640	46,873	129,628	381,514	337,001	722,896	13,161	34,601	364,212
Northeast.....	55	29	16,468	113,444	11,060	22,474	67,199	175,173	141,138	319,214	6,235	18,973	202,533
New York.....	14	8	826	3,837	599	1,104	2,274	4,762	4,867	10,018	214	843	5,587
Pennsylvania.....	14	9	8,905	62,706	6,119	12,303	39,074	83,679	79,039	162,971	2,610	9,941	117,950
North Central.....	59	38	11,558	65,166	8,770	16,632	43,390	120,752	118,103	239,468	5,343	11,759	109,416
Ohio.....	7	5	1,084	6,645	851	1,802	4,742	14,255	11,220	25,752	401	1,091	16,085
Illinois.....	23	14	4,848	25,377	4,086	7,861	18,919	46,825	47,790	95,438	990	4,409	36,744
Wisconsin.....	10	7	1,518	9,680	964	1,826	5,297	15,641	10,037	24,754	698	1,348	13,354
South Atlantic.....	13	8	2,980	17,404	2,128	4,478	10,495	54,693	46,268	100,839	1,041	3,123	39,098
East South Central.....	6	5	538	3,039	374	750	1,927	7,951	10,972	19,034	165		
West South Central.....	8	4	452	2,416	329	648	1,369	5,246	6,374	11,816	121		
West.....	36	15	1,369	8,045	979	1,891	5,248	17,699	14,146	32,525	256	746	13,165
California.....	30	13	1,126	6,740	816	1,584	4,553	15,090	12,654	28,470	243	674	12,226
INDUSTRY 3613.—SWITCHGEAR AND SWITCHBOARDS													
Total.....	400	214	54,045	338,860	38,091	76,910	204,942	647,838	452,209	1,093,743	18,180	52,871	555,044
New England.....	33	20	5,197	28,163	3,609	6,998	16,165	52,519	42,880	96,067	1,524	5,296	43,316
Connecticut.....	13	8	2,515	14,429	1,688	3,359	8,215	28,544	27,204	56,959	811	2,405	23,356
Middle Atlantic.....	106	55	22,571	156,690	15,047	29,813	92,582	286,801	173,328	457,797	8,291	22,171	260,120
New York.....	43	24	2,945	16,939	2,215	4,080	11,185	33,008	26,024	59,973	964	2,709	25,653
New Jersey.....	38	18	5,195	32,077	3,698	7,333	20,509	64,396	31,158	96,449	2,101	4,520	50,206
Pennsylvania.....	25	13	14,431	107,674	9,134	18,400	60,888	189,397	116,146	301,375	5,226	14,942	184,261
East North Central.....	105	59	12,798	79,567	9,306	18,851	49,078	150,857	98,479	246,240	6,093	13,537	132,269
Ohio.....	20	14	1,973	12,047	1,545	3,149	8,578	33,711	21,852	54,166	780	2,324	20,441
Indiana.....	10	5	1,295	7,245	961	1,845	4,651	10,725	5,658	16,642	109	1,014	6,988
Illinois.....	46	25	5,665	33,387	4,113	8,492	20,342	64,220	38,794	102,452	3,608	5,852	55,814
Michigan.....	20	9	1,562	10,837	1,152	2,332	6,833	15,279	12,848	27,728	429	2,873	29,078
Wisconsin.....	9	6	2,303	16,051	1,535	3,033	8,674	26,922	19,327	45,252	1,167	1,474	19,948
West North Central.....	18	13	3,866	20,683	3,221	7,234	15,199	44,560	24,694	69,304	531	3,448	31,479
Minnesota.....	7	5	498	2,648	368	705	1,657	3,936	3,657	7,688	123	( <sup>2</sup> )	( <sup>2</sup> )
South.....	49	26	5,284	26,307	4,085	8,038	16,457	65,548	51,617	116,199	775	3,832	39,815
Maryland.....	6	3	290	1,168	216	427	361	2,287	1,479	3,710	61	( <sup>2</sup> )	( <sup>2</sup> )
Georgia.....	6	6	1,291	6,987	871	1,795	3,929	14,306	15,020	29,254	122	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	16	7	518	3,224	360	717	1,751	7,036	12,703	19,753	116	632	7,269
Mountain.....	11	4	287	1,540	219	446	1,016	4,166	3,878	7,854	60	4,587	48,045
Pacific.....	78	37	4,042	25,910	2,604	5,530	14,445	43,387	57,333	100,282	906		
California.....	66	32	3,723	23,676	2,407	5,125	13,269	38,450	50,425	88,363	866		
INDUSTRY 3621.—MOTORS AND GENERATORS													
Total.....	384	244	94,170	583,225	68,693	140,174	378,790	993,207	715,189	1,709,818	35,804	93,541	813,124
New England.....	18	13	2,982	17,102	2,050	4,149	10,790	29,841	23,775	54,700	633	3,209	25,089
Connecticut.....	9	6	1,944	12,279	1,301	2,678	7,765	23,810	20,316	44,657	405	2,212	19,048

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3621.—MOTORS AND GENERATORS—Continued													
Middle Atlantic....	88	57	26,507	183,928	18,448	38,517	113,207	314,211	232,358	546,358	10,435	30,395	291,229
New York.....	38	23	15,319	113,985	11,387	23,600	75,293	184,897	162,396	348,226	6,389	18,472	181,859
New Jersey.....	24	14	4,450	27,011	2,554	5,302	13,482	36,890	27,588	65,565	1,217	5,567	41,701
Pennsylvania.....	26	20	6,738	42,932	4,507	9,615	24,432	92,424	42,374	132,567	2,829	6,356	67,669
East North Central.	143	101	43,765	274,231	31,951	64,992	179,007	453,072	301,184	758,156	14,817	43,814	364,449
Ohio.....	48	36	21,487	141,279	15,626	32,392	95,181	236,159	161,302	404,508	7,983	23,314	205,689
Indiana.....	20	14	8,263	50,257	6,359	12,423	34,556	95,096	52,845	146,327	1,962	7,358	68,936
Illinois.....	34	22	3,698	20,450	2,783	5,617	13,750	31,892	25,146	60,620	1,940	3,226	27,505
Michigan.....	18	13	3,645	19,093	2,942	6,046	13,475	25,663	22,193	46,220	940	2,607	17,291
Wisconsin.....	23	16	6,672	43,152	4,241	8,514	22,045	64,262	39,698	100,481	1,992	7,309	45,028
West North Central.	22	15	7,233	43,819	5,564	11,223	31,471	62,125	56,140	117,128	3,806	8,970	71,078
Minnesota.....	9	6	2,320	15,701	1,615	3,307	9,780	26,999	17,903	44,707	1,064	2,129	21,946
South Atlantic.....	18	12	3,218	13,328	2,299	4,475	8,072	23,138	15,657	40,980	1,128	1,125	8,192
Virginia.....	5	4	751	3,042	603	1,230	2,040	6,225	6,169	11,949	114	196	1,142
East South Central.	10	8	2,380	8,636	2,205	4,381	7,315	29,405	23,324	50,402	1,767	539	4,183
West South Central.	20	12	2,857	11,150	2,589	5,185	9,298	30,924	23,067	52,607	1,189	1,143	12,500
Arkansas.....	10	8	2,630	10,033	2,408	4,811	8,470	27,459	20,507	46,714	1,074	1,124	12,331
West.....	65	26	5,228	31,031	3,587	7,252	19,630	50,491	39,684	89,487	2,029	4,346	36,404
INDUSTRY 3622.—INDUSTRIAL CONTROLS													
Total.....	427	118	32,990	214,597	22,772	44,898	125,418	450,507	207,587	648,683	15,419	27,150	281,890
New England.....	43	16	1,997	11,371	1,245	2,518	5,629	23,013	11,381	32,952	508	1,352	12,754
Massachusetts.....	20	10	993	5,494	647	1,252	2,745	10,616	5,753	16,441	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Connecticut.....	20	4	994	5,826	591	1,250	2,849	12,349	5,576	16,396	280	637	6,453
Middle Atlantic....	91	19	2,943	24,972	2,046	4,286	11,657	37,693	30,358	66,340	559	1,980	14,514
New York.....	46	8	1,775	17,585	1,380	2,957	8,440	25,123	20,349	44,750	257	( <sup>2</sup> )	( <sup>2</sup> )
New Jersey.....	25	7	523	2,646	399	782	1,819	3,887	4,076	8,183	148	177	1,191
Pennsylvania.....	20	4	645	4,741	267	547	1,398	8,683	5,933	13,407	154	( <sup>2</sup> )	( <sup>2</sup> )
East North Central.	128	44	20,599	131,456	15,062	29,162	86,291	297,471	116,144	409,292	11,974	18,656	194,282
Ohio.....	31	9	2,432	16,907	1,411	2,767	8,652	30,177	18,433	48,270	470	2,508	23,432
Illinois.....	43	15	3,386	20,299	2,405	4,944	11,573	55,590	24,650	80,004	1,512	2,567	30,969
Wisconsin.....	19	8	12,635	81,606	9,893	18,876	60,021	191,548	58,925	247,826	9,619	12,143	131,010
West North Central.	20	5	983	6,150	546	1,109	2,723	9,083	6,211	14,815	133	598	6,295
South.....	53	17	5,251	32,491	3,068	6,188	14,644	67,657	34,226	100,733	1,566	3,626	43,551
West.....	92	17	1,217	8,157	805	1,635	4,474	15,590	9,267	24,551	679	938	10,494
California.....	67	14	1,005	6,853	664	1,351	3,694	13,056	6,891	19,688	572	753	8,532
INDUSTRY 3623.—ELECTRIC WELDING APPARATUS													
Total.....	149	75	9,629	72,113	6,565	14,075	44,617	162,411	168,553	330,227	5,364	9,895	112,709
Northeast.....	43	18	1,712	10,988	1,063	2,162	5,910	36,248	35,244	71,367	961	1,521	18,726
New York.....	12	5	379	2,730	207	439	1,074	10,972	8,533	19,647	284	347	3,684
Pennsylvania.....	13	8	1,059	6,584	698	1,395	3,998	20,839	24,240	44,118	625	837	11,212
East North Central.	67	42	6,357	51,189	4,425	9,735	32,952	105,183	105,645	210,465	3,834	6,506	76,953
Ohio.....	11	7	2,915	27,041	2,030	4,517	17,786	60,359	61,684	122,187	2,560	3,168	42,459
Michigan.....	36	23	1,836	13,666	1,320	2,902	8,473	23,348	19,814	43,491	312	1,742	18,313
Wisconsin.....	9	6	908	7,258	623	1,336	4,073	13,521	18,262	31,742	627	878	9,546
West North Central.	12	4	320	1,935	204	421	978	4,087	4,062	7,791	129	529	4,698
Missouri.....	6	2	135	855	92	192	461	1,415	1,040	2,336	47	( <sup>2</sup> )	( <sup>2</sup> )
South.....	9	3	546	3,444	427	886	2,387	7,790	14,832	22,835	159	530	4,882
West.....	17	7	694	4,557	446	871	2,390	9,103	8,770	17,769	281	809	7,450
INDUSTRY 3624.—CARBON AND GRAPHITE PRODUCTS													
Total.....	53	40	10,123	61,984	7,963	16,104	44,068	141,423	84,758	226,889	11,441	8,904	102,483
Northeast.....	27	18	5,099	30,624	3,988	8,133	21,635	55,264	37,982	93,250	5,292	4,744	44,036
New York.....	12	8	2,505	16,589	1,836	3,866	11,193	30,999	24,881	56,425	2,018	( <sup>2</sup> )	( <sup>2</sup> )
Pennsylvania.....	10	7	2,370	12,618	1,992	3,938	9,645	22,351	10,472	32,584	3,074	2,356	14,068
North Central, South and West....	26	22	5,024	31,360	3,975	7,971	22,433	86,159	46,776	133,639	6,149	4,160	58,447

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(number)	(\$1,000)
INDUSTRY 3629.—ELECTRIC INDUSTRIAL GOODS, N.E.C.													
Total.....	231	109	14,041	72,988	10,897	21,043	47,677	141,633	100,132	238,325	4,003	16,842	137,547
New England.....	21	8	803	2,981	685	1,287	2,158	5,006	2,826	7,906	255	1,592	9,396
Massachusetts....	8	3	224	859	189	339	673	1,464	995	2,444	(D)	663	4,009
Connecticut.....	7	2	343	1,269	291	530	847	1,577	893	2,542	6	(2)	(2)
Middle Atlantic....	69	31	4,397	25,832	3,201	6,230	16,519	54,941	33,725	88,312	1,247	4,414	38,451
New York.....	37	14	2,300	13,183	1,669	3,215	7,994	25,170	16,452	42,429	606	2,239	17,906
New Jersey.....	18	9	472	2,274	364	704	1,479	4,472	3,580	8,016	269	(2)	(2)
Pennsylvania.....	14	8	1,625	10,375	1,168	2,311	7,046	25,299	13,693	37,867	372	(2)	(2)
West North Central.	14	7	538	2,631	441	848	1,980	7,221	5,303	12,161	134	602	3,728
Minnesota.....	9	5	429	2,096	359	699	1,622	6,192	4,124	9,911	120	(2)	(2)
All other divisions.	127	72	8,308	41,544	6,570	12,678	27,020	74,465	58,278	129,946	2,367	10,234	85,972
Illinois.....	33	20	1,970	8,700	1,613	3,089	5,621	13,655	13,727	27,148	432	(2)	(2)
Michigan.....	10	4	276	1,395	228	435	862	2,729	1,570	4,287	129	211	1,082
California.....	34	12	1,102	6,381	778	1,663	3,759	9,713	7,505	17,099	422	(2)	(2)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3611, Electric Measuring Instruments: New England—New Hampshire, 10 (1,000-2,499); Vermont, 1 (1-19); Middle Atlantic—New Jersey, 62 (3,723); East North Central—Indiana, 9 (883); Michigan, 19 (660); West North Central—Minnesota, 6 (500-999); Iowa, 5 (20-99); Missouri, 1 (100-249); Nebraska, 1 (1-19); Kansas, 4 (20-99); South Atlantic—Maryland, 9 (100-249); Virginia, 4 (20-99); North Carolina, 2 (500-999); South Carolina, 1 (500-999); Georgia, 2 (250-499); Florida, 5 (20-99); East South Central—Kentucky, 1 (1-19); Tennessee, 5 (20-99); Alabama, 4 (20-99); Mississippi, 1 (250-499); West South Central—Louisiana, 2 (1-19); Oklahoma, 6 (500-999); Texas, 25 (500-999); Mountain—Colorado, 10 (1,677); Arizona, 1 (1-19); Utah, 1 (1-19); Nevada, 1 (1-19); Pacific—Washington, 2 (250-499); Oregon, 5 (4,812).

SIC 3612, Transformers: New England—New Hampshire, 1 (1-19); Massachusetts, 5 (5,208); Rhode Island, 1 (1-19); Connecticut, 4 (100-249); Middle Atlantic—New Jersey, 16 (1,346); East North Central—Indiana, 4 (2,031); Michigan, 6 (342); West North Central—Minnesota, 2 (1-19); Missouri, 7 (1,000-2,499); South Atlantic—Maryland, 2 (1-19); Virginia, 1 (20-99); West Virginia, 1 (20-99); North Carolina, 2 (500-999); South Carolina, 1 (1-19); Georgia, 3 (1,000-2,499); Florida, 2 (100-249); East South Central—Kentucky, 1 (20-99); Alabama, 2 (250-499); Mississippi, 3 (100-249); West South Central—Arkansas, 1 (100-249); Texas, 7 (100-249); Mountain—Colorado, 1 (1-19); Arizona, 1 (1-19); Pacific—Oregon, 4 (100-249).

SIC 3613, Switchgear and Switchboards: New England—New Hampshire, 4 (250-499); Vermont, 1 (20-99); Massachusetts, 14 (2,112); Rhode Island, 1 (100-249); West North Central—Iowa, 3 (500-999); Missouri, 7 (2,503); Kansas, 1 (1-19); South Atlantic—Delaware, 1 (1-19); Virginia, 2 (20-99); West Virginia, 1 (1-19); North Carolina, 4 (500-999); Florida, 2 (20-99); East South Central—Kentucky, 5 (1,000-2,499); Tennessee, 1 (1-19); Alabama, 2 (20-99); Mississippi, 1 (1-19); West South Central—Arkansas, 1 (100-249); Louisiana, 1 (1-19); Mountain—Colorado, 5 (100-249); New Mexico, 1 (1-19); Arizona, 2 (1-19); Utah, 2 (100-249); Nevada, 2 (1-19); Pacific—Washington, 6 (100-249); Oregon, 5 (100-249); Hawaii, 1 (1-19).

SIC 3621, Motors and Generators: New England—New Hampshire, 2 (250-499); Massachusetts, 7 (500-999); West North Central—Iowa, 3 (100-249); Missouri, 8 (4,667); Nebraska, 2 (20-99); South Atlantic—Maryland, 2 (250-499); West Virginia, 1 (20-99); North Carolina, 2 (1,000-2,499); South Carolina, 2 (1,000-2,499); Florida, 6 (20-99); East South Central—Kentucky, 2 (500-999); Tennessee, 7 (1,640); Mississippi, 1 (100-249); West South Central—Louisiana, 2 (20-99); Oklahoma, 2 (100-249); Texas, 6 (20-99); Mountain—Colorado, 5 (683); New Mexico, 1 (1-19); Arizona, 3 (1-19); Nevada, 1 (1-19); Pacific—Oregon, 1 (20-99); California, 54 (4,507).

SIC 3622, Industrial Controls: New England—New Hampshire, 1 (1-19); Rhode Island, 2 (1-19); East North Central—Indiana, 3 (1,057); Michigan, 29 (1,089); West North Central—Minnesota, 7 (250-499); Iowa, 1 (1-19); Missouri, 4 (500-999); Nebraska, 1 (1-19); South Atlantic—Maryland, 6 (250-499); District of Columbia, 2 (20-99); Virginia, 2 (2,500-4,999); West Virginia, 1 (1-19); North Carolina, 2 (250-499); Georgia, 2 (20-99); Florida, 1 (20-99); East South Central—Kentucky, 2 (20-99); Tennessee, 2 (1-19); Alabama, 1 (1-19); Mississippi, 1 (1-19); West South Central—Oklahoma, 2 (250-499); Texas, 15 (250-499); Mountain—Colorado, 3 (1-19); Arizona, 2 (20-99); Utah, 2 (20-99); Nevada, 1 (1-19); Pacific—Washington, 5 (20-99); Oregon, 9 (20-99).

SIC 3623, Electric Welding Apparatus: New England—Massachusetts, 6 (20-99); Connecticut, 5 (100-249); Middle Atlantic—New Jersey, 7 (100-249); East North Central—Indiana, 1 (1-19); Illinois, 10 (500-999); West North Central—Minnesota, 6 (100-249); Kansas, 1 (20-99); South Atlantic—Maryland, 2 (250-499); Virginia, 1 (1-19); West Virginia, 1 (1-19); Florida, 1 (1-19); East South Central—Alabama, 1 (20-99); West South Central—Arkansas, 1 (1-19); Oklahoma, 2 (20-99); Mountain—Colorado, 2 (100-249); Pacific—Washington, 1 (20-99); Oregon, 1 (1-19); California, 13 (509).

SIC 3624, Carbon and Graphite Products: New England—Massachusetts, 1 (20-99); Connecticut, 2 (1-19); Middle Atlantic—New Jersey, 2 (100-249); East North Central—Ohio, 8 (1,939); Illinois, 3 (250-499); Michigan, 3 (687); Wisconsin, 2 (100-249); South Atlantic—West Virginia, 2 (100-249); North Carolina, 1 (500-999); East South Central—Tennessee, 1 (500-999); Alabama, 1 (20-99); Pacific—California, 5 (131).

SIC 3629, Electric Industrial Goods, N.E.C.: New England—Maine, 1 (100-249); New Hampshire, 2 (20-99); Rhode Island, 3 (20-99); East North Central—Ohio, 16 (1,823); Indiana, 14 (1,000-2,499); Wisconsin, 3 (250-499); West North Central—Missouri, 3 (20-99); Nebraska, 2 (1-19); South Atlantic—Virginia, 2 (20-99); West Virginia, 2 (100-249); Georgia, 2 (1-19); Florida, 1 (1-19); East South Central—Kentucky, 1 (20-99); Mississippi, 1 (20-99); West South Central—Oklahoma, 1 (1-19); Texas, 1 (250-499); Mountain—Wyoming, 1 (20-99); Colorado, 1 (1-19); Arizona, 1 (20-99); Nevada, 1 (1-19); Pacific—Washington, 2 (20-99).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.



TABLE 3. Detailed Statistics: 1963

Item	Electric measuring instruments (SIC 3611)	Transformers (SIC 3612)	Switchgear and switchboards (SIC 3613)	Motors and generators (SIC 3621)	Industrial controls (SIC 3622)	Electric welding apparatus (SIC 3623)	Carbon and graphite products (SIC 3624)	Electric industrial goods, n.e.c. (SIC 3629)
Primary product specialization ratio <sup>1</sup> .....	.84	.92	.87	.81	.79	.93	.93	.80
Coverage ratio <sup>2</sup> .....	.78	.94	.89	.84	.79	.89	.96	.72
Establishments, total.....number..	560	177	400	384	427	149	53	231
With 1 to 19 employees.....do....	351	78	186	140	309	74	13	122
With 20 to 99 employees.....do....	125	51	120	82	81	50	18	75
With 100 employees or more.....do....	84	48	94	162	37	25	22	34
Proprietors and working partners.....do....	150	43	74	65	68	34	5	48
All employees (average for the year).....do....	44,715	33,365	54,045	94,170	32,990	9,629	10,123	14,041
Payroll (all employees), total for year.....\$1,000..	273,645	209,514	338,860	583,225	214,597	72,113	61,984	72,988
Production workers:								
Average for the year.....number..	30,109	23,640	38,091	68,693	22,772	6,565	7,963	10,897
March.....do....	30,489	23,479	37,258	68,792	22,762	6,488	7,966	11,058
May.....do....	29,691	23,465	38,048	69,511	22,659	6,816	7,970	10,533
August.....do....	29,843	23,861	38,559	67,871	22,506	6,517	7,875	10,920
November.....do....	30,428	23,789	38,514	68,603	23,159	6,427	8,048	11,080
Man-hours.....1,000..	59,905	46,873	76,910	140,174	44,898	14,075	16,104	21,043
January-March.....do....	15,463	11,694	18,799	35,539	11,294	3,464	4,044	5,188
April-June.....do....	15,050	12,115	19,435	36,033	11,251	3,579	4,083	5,243
July-September.....do....	14,145	11,505	18,975	33,127	10,902	3,521	3,930	5,103
October-December.....do....	15,247	11,559	19,701	35,475	11,451	3,511	4,050	5,509
Wages.....\$1,000..	149,616	129,628	204,942	378,790	125,418	44,617	44,068	47,677
Cost of materials, etc., total.....do....	245,417	337,001	452,209	715,189	207,587	168,553	84,758	100,132
Materials, parts, containers, and supplies consumed.....do....	217,126	324,538	400,444	662,068	195,509	150,549	71,382	92,996
Cost of resales.....do....	18,439	2,905	40,941	21,844	6,309	12,690	1,325	2,800
Fuels consumed.....do....	1,039	2,397	2,089	5,403	1,219	951	3,914	1,413
Electric energy:								
Purchased:								
Quantity.....million kw.-hrs..	271	478	337	862	241	104	1,123	97
Cost.....\$1,000..	3,306	4,847	4,320	10,090	3,031	1,510	7,186	1,254
Generated less sold.....million kw.-hrs..	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)
Contract work.....\$1,000..	5,501	2,314	4,415	15,780	1,519	2,844	951	1,669
Value of shipments (including resales), total.....do....	749,220	722,896	1,093,743	1,709,818	648,683	330,227	226,889	238,325
Value of resales.....do....	25,827	4,595	52,078	34,777	9,133	16,640	1,870	3,900
Value added by manufacture, adjusted.....do....	505,309	381,514	647,838	993,207	450,507	162,411	141,423	141,633
Manufacturers' inventories:								
Beginning of year, total.....do....	176,906	140,088	203,481	335,091	110,383	56,075	51,457	40,088
Finished products.....do....	38,718	43,745	52,849	85,259	33,839	19,963	8,368	8,761
Work-in-process.....do....	82,460	51,238	90,778	146,936	48,504	14,902	33,042	12,432
Materials, supplies, fuel, etc.....do....	55,728	45,105	59,854	102,896	28,040	21,210	10,047	18,895
End of year, total.....do....	181,276	134,874	210,574	321,517	118,887	56,666	50,228	42,890
Finished products.....do....	41,917	37,902	53,969	83,993	31,526	20,511	8,062	10,368
Work-in-process.....do....	80,882	52,700	95,962	144,227	60,228	15,111	32,640	14,265
Materials, supplies, fuel, etc.....do....	58,477	44,272	60,643	93,297	27,133	21,044	9,526	18,257
Expenditures for plant and equipment, total.....do....	19,957	14,032	18,847	41,890	15,938	5,705	11,860	4,951
New, total.....do....	19,207	13,161	18,180	35,804	15,419	5,364	11,441	4,003
New structures and additions to plant.....do....	6,467	1,043	5,060	3,820	6,219	1,382	2,367	1,156
New machinery and equipment.....do....	12,740	12,118	13,120	31,984	9,200	3,982	9,074	2,847
Used plant and equipment.....do....	750	871	667	6,086	519	341	419	948
Selected operating ratios:								
Payroll/Total employment.....	6,119	6,279	6,270	6,193	6,505	7,489	6,123	5,198
Production workers/Total employment.....	.67	.71	.70	.73	.69	.68	.79	.78
Man-hours/Production workers.....	1,989	1,983	2,019	2,041	1,972	2,144	2,022	1,931
Production worker wages/Man-hours.....	2.50	2.77	2.66	2.70	2.79	3.17	2.73	2.27
Cost of materials and payrolls/Total value of shipments....	.69	.76	.73	.76	.65	.73	.65	.73
Cost of materials/Total value of shipments.....	.33	.47	.41	.42	.32	.51	.37	.42
Adjusted value added/Total employment.....	11,300	11,435	11,987	10,547	13,656	16,971	13,970	10,087
Salaries and wages/Adjusted value added.....	.54	.55	.52	.59	.48	.44	.44	.52

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3611.—ELECTRIC MEASURING INSTRUMENTS											
Establishments.....number..	560	193	90	68	71	54	45	24	8	5	2
All employees:											
Total.....do....	44,715	326	608	900	2,210	3,621	7,330	9,058	5,520	15,142	(D)
Payroll.....\$1,000..	273,645	1,820	3,183	5,264	12,714	21,589	43,013	52,342	32,226	101,494	(D)
Value added, adjusted.....do....	505,309	3,320	4,992	8,859	22,144	34,899	78,856	89,619	72,439	190,181	(D)
Value of shipments.....do....	749,220	5,587	8,075	13,202	34,459	58,720	115,724	139,819	105,851	267,783	(D)
Capital expenditures, new...do....	19,207	1,396	312	435	963	1,744	2,400	3,162	1,733	7,062	(D)
INDUSTRY 3612.—TRANSFORMERS											
Establishments.....number..	177	30	25	23	30	21	23	7	9	7	2
All employees:											
Total.....do....	33,365	69	163	332	922	1,376	3,575	2,441	6,610	17,877	(D)
Payroll.....\$1,000..	209,514	289	817	1,573	4,135	7,058	18,671	13,259	37,820	125,892	(D)
Value added, adjusted.....do....	381,514	477	1,209	2,072	8,683	13,300	39,074	42,494	64,452	209,753	(D)
Value of shipments.....do....	722,896	892	2,370	3,894	16,916	28,618	76,047	69,133	148,222	376,804	(D)
Capital expenditures, new...do....	13,161	35	68	87	249	397	910	1,305	3,325	6,785	(D)
INDUSTRY 3613.—SWITCHGEAR AND SWITCHBOARDS											
Establishments.....number..	400	93	40	53	78	42	42	20	20	9	3
All employees:											
Total.....do....	54,045	168	281	732	2,521	3,097	6,326	7,359	12,973	12,454	8,134
Payroll.....\$1,000..	338,860	946	1,680	4,509	16,060	18,304	34,799	42,273	75,692	80,925	63,672
Value added, adjusted.....do....	647,838	1,826	2,929	7,697	32,772	36,171	83,398	84,510	125,803	176,136	96,586
Value of shipments.....do....	1,093,743	3,848	6,034	14,346	69,223	71,430	151,326	139,497	227,942	245,285	164,812
Capital expenditures, new...do....	18,180	57	68	226	849	1,869	1,267	1,775	5,035	3,607	3,427
INDUSTRY 3621.—MOTORS AND GENERATORS											
Establishments.....number..	384	72	34	34	49	33	68	39	34	17	4
All employees:											
Total.....do....	94,170	109	237	498	1,546	2,260	11,209	13,563	23,776	24,940	16,032
Payroll.....\$1,000..	583,225	745	1,095	2,409	7,337	13,062	58,023	68,955	138,973	165,899	126,727
Value added, adjusted.....do....	993,207	1,160	1,773	4,534	13,073	23,873	104,450	118,506	254,998	266,704	204,136
Value of shipments.....do....	1,709,818	2,048	3,098	8,825	24,268	47,449	186,657	220,177	402,337	448,694	366,265
Capital expenditures, new...do....	35,804	66	113	176	532	447	3,926	5,324	9,938	7,433	7,849
INDUSTRY 3622.—INDUSTRIAL CONTROLS											
Establishments.....number..	427	174	67	68	53	28	15	10	3	7	2
All employees:											
Total.....do....	32,990	331	475	937	1,660	2,053	2,142	3,587	1,889	19,916	(D)
Payroll.....\$1,000..	214,597	2,103	2,745	5,480	9,872	12,669	13,445	23,326	11,432	133,525	(D)
Value added, adjusted.....do....	450,507	3,874	4,778	9,796	18,302	23,768	21,888	46,261	25,292	296,548	(D)
Value of shipments.....do....	648,683	6,977	8,764	17,124	31,534	38,396	40,085	72,394	34,515	398,894	(D)
Capital expenditures, new...do....	15,419	120	138	268	456	951	470	743	634	11,639	(D)
INDUSTRY 3623.—ELECTRIC WELDING APPARATUS											
Establishments.....number..	149	35	14	25	31	19	17	6	1	1	-
All employees:											
Total.....do....	9,629	49	98	356	1,013	1,338	2,510	4,265	(D)	(D)	-
Payroll.....\$1,000..	72,113	327	638	2,212	6,767	9,244	17,777	35,148	(D)	(D)	-
Value added, adjusted.....do....	162,411	809	1,207	4,289	14,408	17,049	40,227	84,422	(D)	(D)	-
Value of shipments.....do....	330,227	1,591	2,100	9,511	26,832	38,317	93,886	157,990	(D)	(D)	-
Capital expenditures, new...do....	5,364	216	32	136	609	399	1,322	2,650	(D)	(D)	-

See footnotes at end of table.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963—Continued

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
	INDUSTRY 3624.—CARBON AND GRAPHITE PRODUCTS										
Establishments.....number..	53	4	4	5	12	6	7	6	9	-	-
All employees:											
Total.....do....	10,123	32	(D)	65	398	428	961	2,138	6,101	-	-
Payroll.....\$1,000..	61,984	166	(D)	371	2,422	2,833	4,502	12,908	38,782	-	-
Value added, adjusted.....do....	141,423	228	(D)	673	4,170	5,146	6,559	25,898	98,749	-	-
Value of shipments.....do....	226,889	446	(D)	861	5,886	7,617	10,989	46,678	154,412	-	-
Capital expenditures, new...do....	11,441	7	(D)	25	340	451	286	1,061	9,271	-	-
	INDUSTRY 3629.—ELECTRIC INDUSTRIAL GOODS, N.E.C.										
Establishments.....number..	231	51	27	44	48	27	23	6	3	2	-
All employees:											
Total.....do....	14,041	90	185	626	1,544	1,928	3,373	2,024	4,271	(D)	-
Payroll.....\$1,000..	72,988	459	952	3,286	7,522	8,958	15,799	9,296	26,716	(D)	-
Value added, adjusted.....do....	141,633	1,037	1,539	5,976	13,643	14,354	31,017	14,582	59,485	(D)	-
Value of shipments.....do....	238,325	1,645	2,548	10,898	23,772	26,318	52,482	24,018	96,644	(D)	-
Capital expenditures, new...do....	4,003	54	106	130	657	472	707	474	1,403	(D)	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. n.e.c. Not elsewhere classified.

<sup>1</sup>Includes capital expenditures of approximately \$1-\$2 million for plants under construction but not in operation.<sup>2</sup>Includes capital expenditures of approximately \$100-\$200 thousand for plants under construction but not in operation.

TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
						Col. B Col. B+C (percent)				Col. B Col. F (percent)
						(\$1,000)				(\$1,000)
		A	B	C	D	E	F	G	H	I
3611	Electric measuring instruments...1963.. 1958..	749,220	588,425	112,438	48,357	84	755,620	588,425	167,195	78
		673,522	474,548	163,387	35,587	74	587,755	474,548	113,207	81
3612	Transformers.....1963.. 1958..	722,896	652,468	58,386	12,042	92	692,204	652,468	39,736	94
		642,267	596,412	37,662	8,193	94	638,307	596,412	41,895	93
3613	Switchgear and switchboards.....1963.. 1958..	1,093,743	897,002	135,562	61,179	87	1,008,480	897,002	111,478	89
		962,558	797,912	116,216	48,430	80	891,371	797,912	93,459	90
3621	Motors and generators.....1963.. 1958..	1,709,818	1,331,864	307,611	70,343	81	1,578,186	1,331,864	246,322	84
		1,392,573	1,104,285	232,189	56,099	83	1,291,390	1,104,285	187,105	85
3622	Industrial controls.....1963.. 1958..	648,683	500,116	129,102	19,465	79	633,274	500,116	133,158	79
		413,163	314,741	81,536	16,886	79	447,297	314,741	132,556	70
3623	Electric welding apparatus.....1963.. 1958..	330,227	287,709	20,402	22,116	93	324,895	287,709	37,186	89
		247,739	215,185	15,298	17,256	93	233,235	215,185	18,050	92
3624	Carbon and graphite products.....1963.. 1958..	226,889	208,671	16,047	2,171	93	217,817	208,671	9,146	96
		154,925	149,467	4,452	1,006	97	156,818	149,467	7,351	95
3629	Electric industrial goods, n.e.c.1963.. 1958..	238,325	180,350	45,913	12,062	80	250,474	180,350	70,124	72
		228,929	155,951	63,291	9,687	71	213,073	155,951	57,122	73

Note: See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Electric measuring instruments (SIC 3611)	Other industries
ELECTRIC MEASURING INSTRUMENTS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	749,220	(X)
	Primary products.....	755,620	588,425	167,195
36111	Integrating instruments, electrical.....	93,250	89,630	3,620
36112	Test equipment for testing electrical, radio, and communication circuits, and motors.....	433,407	340,204	103,203
36113	Other electrical measuring instruments.....	204,728	144,771	59,957
36110	Electrical measuring instruments, n.s.k.....	14,235	13,820	415
	Secondary products.....	(X)	112,438	(X)
36220	General industry power circuit devices and controls.....	(X)	4,256	(X)
36513	Recorders, audio amplifiers, phonographs, tuners, speaker systems, and other audio equipment and accessories.....	(X)	2,362	(X)
36626	Electronic military, industrial, and commercial equipment, n.e.c.....	(X)	10,318	(X)
36795	Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks).....	(X)	18,375	(X)
38112	Laboratory and scientific instruments.....	(X)	9,330	(X)
38213	Industrial process instruments.....	(X)	5,651	(X)
38216	Other mechanical measuring and controlling instruments.....	(X)	2,013	(X)
	All other secondary products.....	(X)	60,133	(X)
35711	Electronic data processing machines, and associated equipment, except typewriters.....	(X)	(over 2)	(X)
36292	Rectifying apparatus.....	(X)	(2-5)	(X)
36622	Radio and television broadcast equipment, and closed circuit systems.....	(X)	(2-5)	(X)
36625	Electronic search and detection apparatus, including radar, infrared and sonar.....	(X)	(10-20)	(X)
36794	Coils, transformers, reactors, and chokes for electronic applications.....	(X)	(2-5)	(X)
36930	X-ray equipment, including X-ray tubes and electro-therapeutic apparatus.....	(X)	(5-10)	(X)
38111	Aircraft, flight, nautical, and navigational instruments and automatic pilots.....	(X)	(2-5)	(X)
38311	Optical instruments and lenses, except sighting and fire control equipment.....	(X)	(over 2)	(X)
	Miscellaneous receipts.....	(X)	48,357	(X)
	Resales.....	(X)	25,827	(X)
	Contract work.....	(X)	3,403	(X)
	Receipts for research and developmental work.....	(X)	3,043	(X)
	Receipts for repair work.....	(X)	6,085	(X)
	All other scrap and refuse.....	(X)	184	(X)
	All other miscellaneous receipts.....	(X)	9,815	(X)
	Listing of other industries with over \$2 million shipments of each primary product class:			
36111	3613 Switchgear and switch boards.....	(X)	(X)	(over 2)
36112	1941 Sighting and fire control equipment.....	(X)	(X)	(10-20)
	3636 Sewing machines.....	(X)	(X)	(over 2)
	3651 Radio and TV receiving sets.....	(X)	(X)	4,059
	3661 Telephone; telegraph apparatus.....	(X)	(X)	(over 2)
	3662 Radio, TV communications equipment.....	(X)	(X)	30,760
	3679 Electronic components, n.e.c.....	(X)	(X)	4,599
	3821 Mechanical measuring devices.....	(X)	(X)	4,932
	3861 Photographic equipment.....	(X)	(X)	2,059
36113	3612 Transformers.....	(X)	(X)	10,173
	3613 Switchgear and switchboards.....	(X)	(X)	(over 2)
	3662 Radio, TV communications equipment.....	(X)	(X)	2,348
	3679 Electronic components, n.e.c.....	(X)	(X)	9,662
	3821 Mechanical measuring devices.....	(X)	(X)	16,991
	3822 Automatic temperature controls.....	(X)	(X)	(5-10)

See footnotes at end of table.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Transformers (SIC 3612)	Other industries
TRANSFORMERS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	722,896	(X)
	Primary products.....	692,204	652,468	39,736
36121	Specialty transformers and fluorescent ballasts, except parts.....	163,008	147,644	15,364
36122	Power and distribution transformers, except parts.....	434,476	416,705	17,771
36123	Power regulators, boosters, and reactors, other transformers, and transformer parts.....	90,282	83,715	6,567
36120	Transformers, n.s.k.....	4,438	4,404	34
	Secondary products.....	(X)	58,386	(X)
36113	Other electrical measuring instruments.....	(X)	10,173	(X)
36794	Coils, transformers, reactors, and chokes for electronic applications.....	(X)	4,384	(X)
	All other secondary products.....	(X)	43,829	(X)
33577	Magnet wire.....	(X)	(over 2)	(X)
36131	Switchgear, including power switchgear assemblies and other switching and interrupting devices 2300 volts and over.....	(X)	(5-10)	(X)
36292	Rectifying apparatus.....	(X)	(5-10)	(X)
36430	Current carrying wiring devices, including lightning rods.....	(X)	(over 2)	(X)
36441	Pole line and transmission hardware.....	(X)	(over 2)	(X)
36795	Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks).....	(X)	(2-5)	(X)
	Miscellaneous receipts.....	(X)	12,042	(X)
	Resales.....	(X)	4,595	(X)
	Copper and copper-base alloy production scrap.....	(X)	2,338	(X)
	All other scrap and refuse.....	(X)	2,518	(X)
	All other miscellaneous receipts.....	(X)	2,591	(X)
	Listing of other industries with over \$2 million shipments of each primary product class:			
36121	3642 Lighting fixtures.....	(X)	(X)	5,510
	3679 Electronic components, n.e.c.....	(X)	(X)	(over 2)
	3699 Electrical products, n.e.c.....	(X)	(X)	(over 2)
36122	1999 Ordnance and accessories, n.e.c.....	(X)	(X)	(over 2)
	3613 Switchgear and switchboards.....	(X)	(X)	(over 2)
36123	3621 Motors and generators.....	(X)	(X)	(2-5)
SWITCHGEAR AND SWITCHBOARDS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	1,093,743	(X)
	Primary products.....	1,008,480	897,002	111,478
36131	Switchgear, including power switchgear assemblies and other switching and interrupting devices, 2300 volts and over.....	437,168	372,704	64,464
36132	Circuit breakers.....	208,882	197,483	11,399
36133	Low voltage panelboards and distribution boards and other switching and interrupting devices, 750 volts and under.....	304,214	273,143	31,071
36134	Fuses and fuse equipment under 2300 volts (except power distribution cut-outs).....	41,935	37,782	4,153
36130	Switchgear and switchboards, n.s.k.....	16,281	15,890	391
	Secondary products.....	(X)	135,562	(X)
36220	General industry power circuit devices and controls.....	(X)	66,679	(X)
36430	Current carrying wiring devices, including lightning rods.....	(X)	5,824	(X)
36442	Electrical conduit and conduit fittings.....	(X)	5,799	(X)
	Other secondary products.....	(X)	57,260	(X)
36111	Integrating instruments, electrical.....	(X)	(over 2)	(X)
36113	Other electrical measuring instruments.....	(X)	(over 2)	(X)
36122	Power and distribution transformers, except parts.....	(X)	(over 2)	(X)
36292	Rectifying apparatus.....	(X)	(over 2)	(X)
36623	Intercommunication equipment (except telephone and telegraph) and electric alarm and signal systems and devices.....	(X)	(2-5)	(X)
38216	Other mechanical measuring and controlling instruments.....	(X)	(2-5)	(X)
	Miscellaneous receipts.....	(X)	61,179	(X)
	Contract work.....	(X)	2,565	(X)
	Resales.....	(X)	52,078	(X)
	Other.....	(X)	6,536	(X)

See footnotes at end of table.

**TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:**  
**1963—Continued**

Prod. class code	Class of products and miscellaneous receipts	All industries	Switchgear and switchboards (SIC 3613)	Other industries
SWITCHGEAR AND SWITCHBOARDS INDUSTRY—Continued				
36131	Listing of other industries with over \$2 million shipments of each primary product class:			
1999	Ordnance and accessories, n.e.c.....	(X)	(X)	(over 2)
3612	Transformers.....	(X)	(X)	(5-10)
3622	Industrial controls.....	(X)	(X)	22,752
3629	Electric industrial goods, n.e.c.....	(X)	(X)	(2-5)
3643	Current carrying devices.....	(X)	(X)	(2-5)
3644	Noncurrent carrying devices.....	(X)	(X)	(5-10)
3661	Telephone; telegraph apparatus.....	(X)	(X)	(over 2)
3679	Electronic components, n.e.c.....	(X)	(X)	3,691
36132	3629 Electric industrial goods, n.e.c.....	(X)	(X)	(2-5)
3822	Automatic temperature controls.....	(X)	(X)	(2-5)
36133	3621 Motors and generators.....	(X)	(X)	2,955
3622	Industrial controls.....	(X)	(X)	5,220
3643	Current carrying devices.....	(X)	(X)	7,040
3662	Radio, TV communications equipment.....	(X)	(X)	5,032
36134	3643 Noncurrent carrying devices.....	(X)	(X)	(over 2)
		All industries	Motors and generators (SIC 3621)	Other industries
MOTORS AND GENERATORS INDUSTRY				
Total receipts and shipments of the industry.....		(X)	1,709,818	(X)
Primary products.....		1,578,186	1,331,864	246,322
36211	Fractional horsepower motors.....	620,265	565,744	54,521
36212	Integral horsepower motors and generators, except land transportation.....	380,244	350,450	29,794
36213	Land transportation motors, generators, and control equipment and parts.....	89,823	77,859	116,597
36214	Prime mover generator sets, except steam or hydraulic turbine.....	104,633		
36215	Motor generator sets and other rotating equipment.....	246,226	225,390	20,836
36216	Parts and supplies for motors, generators, and motor generator sets, except land transportation	127,593	103,137	24,456
36210	Motors and generators, n.s.k.....	9,402	9,284	118
Secondary products.....		(X)	307,611	(X)
35611	Industrial pumps, except hydraulic fluid power.....	(X)	6,944	(X)
35662	Speed changers, industrial high speed drives, and gears.....	(X)	21,568	(X)
36133	Low voltage panelboards and distribution boards and switching and interrupting devices 750 volts and under.....	(X)	2,955	(X)
36220	General industry power circuit devices and controls.....	(X)	4,887	(X)
36343	Other small household electric appliances.....	(X)	3,124	(X)
38111	Aircraft, flight, nautical, and navigational instruments and automatic pilots.....	(X)	6,827	(X)
Other secondary products.....		(X)	261,306	(X)
19291	Ammunition over 30 mm (or 1.18 inches and over), n.e.c.....	(X)	(over 2)	(X)
33577	Magnet wire.....	(X)	(20-50)	(X)
34331	Oil burners, residential and industrial, (sold separately), except parts.....	(X)	(over 2)	(X)
34332	Warm air furnaces (except floor and wall), except parts.....	(X)	(over 2)	(X)
35111	Steam, gas, and hydraulic turbine generator sets units and parts.....	(X)	(over 2)	(X)
35112	Steam, gas, and hydraulic turbine and parts; steam engines and parts.....	(X)	(10-20)	(X)
35191	Gasoline engines, except outboard, aircraft, and automotive engines.....	(X)	(2-5)	(X)
35195	Outboard motors.....	(X)	(over 2)	(X)
35361	Hoists.....	(X)	(2-5)	(X)
35532	Woodworking machinery (designed primarily for home workshops, garages, and service shops) (excluding power-driven hand tools).....	(X)	(over 2)	(X)
35616	Parts and attachments for pumps, air and gas compressors, and pumping equipment.....	(X)	(5-10)	(X)
35641	Industrial fans and blowers.....	(X)	(5-10)	(X)
35690	General industry machinery, n.e.c.....	(X)	(10-20)	(X)
36123	Power regulators, boosters, and reactors, other transformers and transformer parts.....	(X)	(2-5)	(X)
36231	Arc welding machines, components, and accessories, except electrodes.....	(X)	(5-10)	(X)
36240	Carbon and graphite products.....	(X)	(over 2)	(X)
36292	Rectifying apparatus.....	(X)	(2-5)	(X)
36293	Other electrical equipment for industrial use.....	(X)	(5-10)	(X)
36341	Electric fans, except industrial types.....	(X)	(2-5)	(X)
36626	Electronic, military, industrial, and commercial equipment, n.e.c.....	(X)	(2-5)	(X)
36942	Battery charging generators.....	(X)	(10-20)	(X)
36943	Cranking motors.....	(X)	(2-5)	(X)
36945	Other complete electrical equipment for internal combustion engines.....	(X)	(2-5)	(X)
37175	Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers.....	(X)	(over 2)	(X)

See footnotes at end of table.



TABLE 5B. **Industry-Product Analysis—Shipments by Product Class and Industry:**  
**1963—Continued**

Prod. class code	Class of products and miscellaneous receipts	All industries	Motors and generators (SIC 3621)	Other industries
MOTORS AND GENERATORS INDUSTRY—Continued				
	Secondary products—Continued			
	Other secondary products—Continued			
37224	Aircraft engine parts and accessories.....	(X)	(over 2)	(X)
37291	Other aircraft parts and auxiliary equipment.....	(X)	(10-29)	(X)
37293	Research and development on aircraft parts.....	(X)	(2-5)	(X)
	Miscellaneous receipts.....	(X)	70,343	(X)
	Contract work.....	(X)	5,425	(X)
	Resales.....	(X)	34,777	(X)
	Iron and steel scrap.....	(X)	4,433	(X)
	Copper and copper-base alloy scrap.....	(X)	1,916	(X)
	Aluminum and aluminum-base alloy scrap.....	(X)	364	(X)
	All other scrap and refuse.....	(X)	1,149	(X)
	Receipts for repair work.....	(X)	13,987	(X)
	Other miscellaneous receipts.....	(X)	8,292	(X)
36211	Listing of other industries with over \$2 million shipments of each primary product class:			
	3548 Metalworking machinery, n.e.c.....	(X)	(X)	6,808
	3679 Electronic components, n.e.c.....	(X)	(X)	4,696
	3821 Mechanical measuring devices.....	(X)	(X)	(over 2)
	3871 Watches and clocks.....	(X)	(X)	7,231
36212	1999 Ordnance and accessories, n.e.c.....	(X)	(X)	(over 2)
	3511 Steam engines and turbines.....	(X)	(X)	(over 2)
36213 and 36214	3519 Internal combustion engines.....	(X)	(X)	38,023
	3532 Mining machinery and equipment.....	(X)	(X)	(over 2)
	3561 Pumps and compressors.....	(X)	(X)	(2-5)
	3613 Switchgear and switchboards.....	(X)	(X)	(over 2)
	3642 Lighting fixtures.....	(X)	(X)	(over 2)
	3741 Locomotives and parts.....	(X)	(X)	(over 2)
36215	3511 Steam engines and turbines.....	(X)	(X)	(over 2)
	3662 Radio, TV communication equipment.....	(X)	(X)	4,688
	3811 Scientific instruments.....	(X)	(X)	(2-5)
	3822 Automatic temperature controls.....	(X)	(X)	(over 2)
36216	3351 Copper rolling and drawing.....	(X)	(X)	(2-5)
	3511 Steam engines and turbines.....	(X)	(X)	(2-5)
	3623 Electric welding apparatus.....	(X)	(X)	(over 2)
	2634 Electric housewares and fans.....	(X)	(X)	(over 2)
	3694 Engines electrical equipment.....	(X)	(X)	(2-5)
		All industries	Industrial controls (SIC 3622)	Other industries
INDUSTRIAL CONTROLS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	648,683	(X)
36220	General industrial power circuit devices and controls.....	633,274	500,116	133,158
	Secondary products.....	(X)	129,102	(X)
36131	Switchgear, including power switchgear assemblies and other switching and interrupting devices 2300 volts and over.....	(X)	22,752	(X)
36133	Low voltage panelboards and distribution boards and switching and interrupting devices 750 volts and under.....	(X)	5,220	(X)
36293	Other electrical equipment for industrial use.....	(X)	3,575	(X)
36793	Resistors for electronic applications.....	(X)	57,201	(X)
	Other secondary products.....	(X)	40,354	(X)
35552	Other printing trades machinery, including parts and attachments.....	(X)	(over 2)	(X)
36430	Current carrying wiring devices, including lightning rods.....	(X)	(5-10)	(X)
36945	Other complete electrical equipment for internal combustion engines.....	(X)	(5-10)	(X)
38220	Automatic temperature controls.....	(X)	(2-5)	(X)

See footnotes at end of table.

**TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:**  
**1963—Continued**

Prod. class code	Class of products and miscellaneous receipts	All industries	Industrial controls (SIC 3622)	Other industries
<b>INDUSTRIAL CONTROLS INDUSTRY—Continued</b>				
	Miscellaneous receipts.....	(X)	19,465	(X)
	Contract work.....	(X)	990	(X)
	Resales.....	(X)	9,133	(X)
	Other miscellaneous receipts.....	(X)	9,342	(X)
36220	Listing of other industries with over \$2 million shipments of industrial controls:			
	1999 Ordnance and accessories, n.e.c.....	(X)	(X)	(over 2)
	3494 Valves and pipe fittings.....	(X)	(X)	(5-10)
	3611 Electric measuring instruments.....	(X)	(X)	4,256
	3613 Switchgear and switchboards.....	(X)	(X)	66,679
	3621 Motors and generators.....	(X)	(X)	4,887
	3643 Current carrying devices.....	(X)	(X)	(10-20)
	3661 Telephone; telegraph apparatus.....	(X)	(X)	(over 2)
	3662 Radio, TV communications equipment.....	(X)	(X)	5,540
	3679 Electronic components, n.e.c.....	(X)	(X)	2,410
	3822 Automatic temperature controls.....	(X)	(X)	13,375
		<b>All industries</b>	<b>Electric welding apparatus (SIC 3623)</b>	<b>Other industries</b>
<b>ELECTRIC WELDING APPARATUS INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	330,227	(X)
	Primary products.....	324,895	287,709	37,186
36231	Arc welding machines, components, and accessories, except electrodes.....	104,508	87,259	17,249
36232	Arc welding electrodes, metal.....	148,328	139,499	8,829
36232	Resistance welders, components, accessories, and electrodes.....	68,300	57,192	11,108
36230	Electric welding apparatus, n.s.k.....	3,759	3,759	
	Secondary products.....	(X)	20,402	(X)
28993	Essential oils, fireworks, and pyrotechnics, and chemicals and chemical preparations, n.e.c..	(X)	(5-10)	(X)
36216	Parts and supplies for motors, generators, and motor generator sets, except land transportation.....	(X)	(over 2)	(X)
	Miscellaneous receipts.....	(X)	22,116	(X)
	Contract work.....	(X)	1,546	(X)
	Resales.....	(X)	16,640	(X)
	Other miscellaneous receipts.....	(X)	3,930	(X)
36231	Listing of other industries with over \$2 million shipments of each primary product class:			
	3621 Motors and generators.....	(X)	(X)	(5-10)
	3723 Aircraft propellers.....	(X)	(X)	(over 2)
36232	3312 Blast furnaces and steel mills.....	(X)	(X)	(over 2)
	3351 Copper rolling and drawing.....	(X)	(X)	(over 2)
	3356 Rolling and drawing, n.e.c.....	(X)	(X)	(over 2)
36233	3694 Engine electrical equipment.....	(X)	(X)	(over 2)
	3717 Motor vehicles and parts.....	(X)	(X)	(over 2)
		<b>All industries</b>	<b>Carbon and graphite products (SIC 3624)</b>	<b>Other industries</b>
<b>CARBON AND GRAPHITE PRODUCTS INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	226,889	(X)
36240	Primary products.....	217,817	208,671	9,146
	Carbon and graphite products.....	217,817	208,671	9,146
	Secondary products.....	(X)	16,047	(X)
32970	Nonclay refractories, except dead-burned magnesia.....	(X)	(over 2)	(X)
35990	Carburetors, pistons and other machine shop products.....	(X)	(over 2)	(X)
36793	Resistors for electronic applications.....	(X)	(2-5)	(X)

See footnotes at end of table.



TABLE 5B. **Industry-Product Analysis—Shipments by Product Class and Industry:**  
**1963—Continued**

Prod. class code	Class of products and miscellaneous receipts	All industries	Carbon and graphite products (SIC 3624)	Other industries
CARBON AND GRAPHITE PRODUCTS INDUSTRY—Continued				
	Miscellaneous receipts.....	(X)	2,171	(X)
	Contract work.....	(X)	198	(X)
	Resales.....	(X)	1,870	(X)
	Other miscellaneous receipts.....	(X)	103	(X)
36240	Listing of other industries with over \$2 million shipments carbon and graphite products:			
	3621 Motors and generators.....	(X)	(X)	(over 2)
	3694 Engine electrical equipment.....	(X)	(X)	(2-5)
ELECTRIC INDUSTRIAL GOODS, N.E.C., INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	238,325	(X)
	Primary products.....	250,474	180,350	70,124
36291	Capacitors for industrial use (except for electronic applications).....	51,430	38,951	12,479
36292	Rectifying apparatus.....	86,898	49,956	36,942
36293	Other electrical equipment for industrial use.....	103,681	83,127	20,554
36290	Electric industrial goods, n.s.k.....	8,465	8,316	149
	Secondary products.....	(X)	45,913	(X)
36794	Coils, transformers, reactors, and chokes for electronic applications.....	(X)	2,132	(X)
	All other secondary products.....	(X)	43,781	(X)
36131	Switchgear, including power switchgear assemblies and other switching and interrupting devices, 2,300 volts and over.....	(X)	(2-5)	(X)
36132	Circuit breakers.....	(X)	(2-5)	(X)
36311	Electric household ranges and ovens and surface cooking unit equipment and parts (except small appliances).....	(X)	(over 2)	(X)
36344	Parts and attachments for small household electric appliances.....	(X)	(over 2)	(X)
36430	Current carrying wiring devices, including lightning rods.....	(X)	(2-5)	(X)
36792	Capacitors for electronic applications.....	(X)	(2-5)	(X)
	Miscellaneous receipts.....	(X)	12,062	(X)
	Contract work.....	(X)	490	(X)
	Resales.....	(X)	3,900	(X)
	Other miscellaneous receipts.....	(X)	7,672	(X)
36291	Listing of other industries with over \$2 million shipments of each primary product class:			
	3642 Lighting fixtures.....	(X)	(X)	(over 2)
	3679 Electronic components, n.e.c.....	(X)	(X)	(5-10)
36292	3611 Electric measuring instruments.....	(X)	(X)	(2-5)
	3612 Transformers.....	(X)	(X)	(5-10)
	3613 Switchgear and switchboards.....	(X)	(X)	(over 2)
	3621 Motors and generators.....	(X)	(X)	(2-5)
	3661 Telephone; telegraph apparatus.....	(X)	(X)	(over 2)
36293	3621 Motors and generators.....	(X)	(X)	(5-10)
	3622 Industrial controls.....	(X)	(X)	3,575

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Value of shipments including interplant transfers (\$1,000)			
		1963		1958	
3611- --	ELECTRICAL MEASURING INSTRUMENTS, TOTAL.....		755,620		587,755
	Integrating instruments, electrical:				
36111 10	As reported in the census of manufactures.....		93,250		88,809
	As reported on Census Annual Form MA-38B (see table 6A.2).....		89,219		(X)
	Equipment for testing electrical, radio, and communication circuits and motors:				
36112 20	As reported in the census of manufactures.....		443,407		341,883
	As reported on Census Annual Form MA-38B (see table 6A.2).....		427,248		(X)
	Other electrical measuring instruments:				
36113 30	As reported in the census of manufactures.....		204,728		140,053
	As reported on Census Annual Form MA-38B (see table 6A.2).....		191,039		(X)
36110 00	Electrical measuring instruments, n.s.k.....		14,235		17,010
Total shipments including interplant transfers					
		1963		1958	
		Quantity (1,000 units)	Value (\$1,000)	Quantity (1,000 units)	Value (\$1,000)
3612- --	POWER, DISTRIBUTION, AND SPECIALTY TRANSFORMERS, TOTAL.....	(X)	692,204	(X)	638,307
36121 --	Specialty transformers and fluorescent ballasts, except parts.....	(X)	163,008	(X)	130,023
	Natural-draft dry type transformers, generally known as specialty transformers:				
36121 11	Control, signalling, doorbell, and toy.....	2,800	9,962	870	3,182
36121 21	Luminous tube.....	406	3,909	650	6,727
36121 31	Ignition, including oil- and gas-furnace ignition applications but excluding internal combustion engine ignition.....	1,205	6,967	975	5,795
36121 41	Fluorescent lamp ballasts:				
	As reported on census of manufactures.....	38,420	93,322	25,828	69,981
	As reported on Census Form M36C <sup>1</sup> .....	36,091	90,699	22,496	60,207
36121 45	Mercury vapor lamp ballasts.....	(X)	( <sup>2</sup> )	(X)	( <sup>2</sup> )
36121 51	Lighting transformers, including street, airport, and mercury vapor lamp types.....	435	13,449	357	14,046
36121 98	General purpose and miscellaneous application involving voltages of 600 volts and below.....	(X)	234,950	(X)	227,268
36121 00	Specialty transformers, n.s.k.....	(X)	449	(X)	3,024
Total shipments including interplant transfers					
		1963		1958	
		Quantity (number of units)	Total KVA (1,000)	Quantity (number of units)	Total KVA (1,000)
36122 --	Power and distribution transformers, except parts.....	(X)	(X)	(X)	(X)
36122 06	Up to and including 15 KVA, 15,000 volts and below.....	419,400	4,889	80,155	10,739
36122 08	16 KVA-50 KVA, 15,000 volts and below.....	320,135	9,894	91,976	163,408
36122 12	51 KVA-167 KVA, 15,000 volts and below.....	74,282	7,864	60,748	30,481
36122 14	168 KVA-500 KVA, 15,000 volts and below; and 500 KVA and under with voltages greater than 15,000.....	11,433	3,992	24,014	23,580
36122 16	501 KVA-5,000 (all voltages).....	8,705	12,196	60,128	66,417
36122 17	5,001 KVA-10,000 KVA (all voltages).....	679	5,240	18,795	28,491
	Over 10,000 KVA (all voltages):				
36122 21	Two-coil type.....	} 860	59,858	677	34,210
36122 23	Auto transformer type.....				
36122 00	Power and distribution transformers, n.s.k.....	(X)	(X)	(X)	1,070
Total shipments including interplant transfers					
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
36123 --	Power regulators, boosters, and reactors, other transformers, and transformer parts.....	(X)	90,282	(X)	80,982
36123 11	Transformers for other applications, including X-ray and radio—liquid filled (all voltages) and dry type above 600 volts.....	(X)	1,628	(X)	7,059
36123 51	Feeder-voltage regulators and boosters.....	(X)	29,323	(X)	25,040
36123 31	Current limiting reactors and special purpose transformers.....	(X)	16,387	}	35,793
36123 75	Parts and accessories for power, distribution, and specialty transformers, including replacement interiors.....	(X)	39,858		

See footnotes at end of table.



TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3612- --	POWER, DISTRIBUTION, AND SPECIALTY TRANSFORMERS--Continued				
36123 --	Power regulators, boosters, and reactors, other transformers, and transformer parts--Continued				
36123 82	Tripping transformers (current and potential):				
36123 84	5 KVA and under.....	(X)	3,086	97,008	8,569
36123 00	Over 5 KVA.....				
36123 00	Transformer parts and supplies, power regulators, boosters, and reactors, n.s.k.....			(X)	4,521
36120 00	Transformers, n.s.k.....	(X)	4,438	(X)	5,576
		Value of shipments including interplant transfers (\$1,000)			
		1963		1958	
3613- --	SWITCHGEAR AND SWITCHBOARD APPARATUS, TOTAL.....		1,008,480		891,371
	Switchgear including power switchgear assemblies and other switching and interrupting devices 2,300 volts and over:				
36131 00	As reported in the census of manufactures.....		437,168		419,932
	As reported on Census Annual Form MA-36A (see table 6A.3).....		416,950		(X)
36132 00	Circuit breakers:				
	As reported in the census of manufactures.....		208,882		200,990
	As reported on Census Annual Form MA-36A (see table 6A.3).....		211,629		(X)
36133 00	Low voltage panelboards and distribution boards and other switching and interrupting devices 750 volts and under:				
	As reported in the census of manufactures.....		304,214		224,223
	As reported on Census Annual Form MA-36A (see table 6A.3).....		282,435		(X)
36134 00	Fuses and fuse equipment under 2,300 volts (except power distribution cutouts):				
	As reported in the census of manufactures.....		41,935		30,675
	As reported on Census Annual Form MA-36A (see table 6A.3).....		39,972		(X)
36130 00	Switchgear and switchboard apparatus, n.s.k.....		16,281		15,551
		Value of shipments (\$1,000)			
		1963		1958	
		Total shipments including interplant transfers	Shipments to other companies (commercial shipments)	Total shipments including interplant transfers	Shipments to other companies (commercial shipments)
3621- --	MOTORS AND GENERATORS, TOTAL.....	1,578,186	1,365,251	1,291,390	1,155,700
36211 00	Fractional horsepower motors:				
	As reported in the census of manufactures.....	620,265	472,957	435,820	365,226
	As reported on Census Annual Form MA-36H (see table 6A.4 and 5).....	592,363	442,800	(X)	(X)
36212 00	Integral horsepower motors and generators:				
	As reported in the census of manufactures.....	380,244	346,534	430,458	394,398
	As reported on Census Annual Form MA-36H (see table 6A.4 and 5).....	363,497	329,825	(X)	(X)
36213 00	Land transportation motors, generators, and control equipment and parts:				
	As reported in the census of manufactures.....	89,823	85,376	52,367	52,367
	As reported on Census Annual Form MA-36H (see table 6A.4 and 5).....	89,468	85,550	(X)	(X)
36214 00	Prime mover generator sets, except steam or hydraulic turbine:				
	As reported in the census of manufactures.....	104,633	104,633	73,865	(3)
	As reported on Census Annual Form MA-36H (see table 6A.4 and 5).....	102,694	102,669	(X)	(X)
36215 00	Motor-generator sets and other rotating equipment:				
	As reported in the census of manufactures.....	246,226	218,756	164,057	(4)
	As reported on Census Annual Form MA-36H (see table 6A.4 and 5).....	239,111	211,313	(X)	(X)
36216 11	Parts and supplies for motors, generators, and motor-generator sets, except for land transportation equipment.....	127,593	127,593	108,881	107,648
36210 00	Motors, generators and generator sets, n.s.k.....	9,402	9,402	25,942	25,942
		Value of shipments including interplant transfers (\$1,000)			
		1963		1958	
3622- --	INDUSTRIAL CONTROLS, TOTAL.....		633,274		447,297
	Industrial controls:				
	As reported in the census of manufactures.....		633,274		447,297
	As reported on Census Annual Form M36A (see table 6A.6).....		594,913		(X)

See footnotes at end of table.

TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3623- --	ELECTRIC WELDING APPARATUS, TOTAL.....		(X)	324,895	(X)	233,235
36231 --	Arc welding machines, components, and accessories, except electrodes.....		(X)	104,508	(X)	65,797
	Arc welding machines:					
	Alternating current transformer arc welders:					
36231 11	180 amp. and below.....	Number.....	72,508	7,771	64,824	7,314
36231 15	Over 180 amp.....	..do.....	55,103	9,482	(NA)	4,739
	Direct current arc welders:					
36231 31	Generators only.....	..do.....	7,809	3,884	(NA)	1,788
36231 32	Rectifier types, including a.c.-d.c.....	..do.....	16,117	12,592	8,443	7,191
	Complete units only:					
36231 33	Engine driven.....	..do.....	34,604	30,529	23,125	14,072
36231 35	Motor driven.....	..do.....				5,679
36231 98	Accessories for arc welding machinery (including electrode holders, ground clamps, arc torches, automatic welding heads, semi-automatic welding guns, standard positioners, etc., but excluding welding rods)...		(X)	36,524	(X)	21,512
36231 00	Arc welding machines, components, and electrodes, n.s.k.....		(X)	3,726	(X)	3,502
36232 --	Arc welding electrodes, metal.....		(X)	148,328	(X)	116,438
	Cut lengths:					
36232 11	Mild steel.....	1,000 lbs...	465,106	68,827	390,363	58,556
36232 23	Low alloy steel, except hard surfacing.....	..do.....	42,795	12,888	28,559	6,442
36232 25	Stainless steel (chromium 4 percent or more).....	..do.....	13,827	17,770	13,794	16,573
36232 31	Nonferrous, except hard surfacing.....	..do.....	9,483	10,264	3,301	6,482
36232 41	Hard surfacing, all types (including tool steel).....	..do.....	15,082	15,880	16,272	14,622
36232 53	Coils and spools, all metals, for automatic arc welding and inert gas shielded arc welding (including electrodes for submerged arc welding)....	..do.....	98,566	22,492	67,273	12,275
36232 00	Metal arc welding electrodes, n.s.k.....		(X)	207	(X)	1,488
36233 --	Resistance welders, components, accessories and electrodes.....		(X)	68,300	(X)	47,760
36233 11	Spot welders (including single electrode, multi-electrode, and gun types)..	Number.....	8,502	20,380	4,887	10,834
36233 21	Projection welders.....	..do.....	430	3,440	332	2,622
36233 31	Seam welders.....	..do.....	172	4,151	450	3,727
36233 41	Flash, upset and butt welders.....	..do.....	942	3,033	569	1,776
36233 51	Other resistance welders.....	..do.....	(X)	15,442	(X)	8,335
36233 61	Resistance welder transformers (sold separately).....	Number.....	7,757	2,251	4,521	1,039
36233 71	Resistance welder electrodes.....	1,000 lbs...	1,732	4,252	2,824	5,293
36233 81	Resistance welder accessories, including electrode holders, etc.....		(X)	12,448	(X)	9,176
36233 00	Resistance welders, parts, components, accessories and electrodes, n.s.k...		(X)	2,903	(X)	4,958
36230 00	Electric welding apparatus, n.s.k.....		(X)	3,759	(X)	3,240
			Value of shipments including interplant transfers (\$1,000)			
			1963		1958	
3624- --	CARBON AND GRAPHITE PRODUCTS, TOTAL.....		217,817		156,818	
	Contacts and brush plates (carbon, carbon-graphite, electro-graphite, graphite, metal graphite, and metal impregnated):					
36240 11	Automotive (starter and generator) brushes, including replacement brushes (automotive and light truck type - 6 to 12 volts, inclusive, excluding automobile accessory brushes).....		11,419		7,804	
36240 13	Other fractional horsepower brushes and contacts, including replacement brushes (brushes 1/4 square inch or less in cross section for 1-1/2 inches long or less) and automobile accessory brushes.....		7,187		5,997	
36240 15	Other industrial brushes and contacts (brushes over 1/4 square inch in cross section and over 1-1/2 inches long).....		18,834		15,139	
36240 17	Brush plates.....		1,930		2,239	
	Electrodes (carbon, carbon graphite, electro-graphite, graphite, metal graphite, and metal impregnated):					
	Electrodes for electric furnaces and electrolytic cell use, including paste for self-bake electrodes:					
36240 52	Carbon.....		25,175		75,343	
36240 56	Graphite.....		78,424			
	All other carbon and graphite products:					
36240 81	For electrical uses, including welding products -- rods, plates, paste brazing and soldering tips; illuminating carbons; pile and rheostat resistance discs, plugs, plates and rods; power tube and rectifier parts and plates or rods; spectroscopic products; battery; electronic graphite; telephone components; resistance elements; etc., excluding silver or other metal contacts.....		25,971		17,302	
36240 83	For mechanical uses, including one-piece seals, bushings and bearings, packing rings for steam seal, rotor vanes, etc., excluding metallic oilless bearings.....		11,743		6,725	
36240 86	For aerospace uses, including unmachined stock and machined items.....	}	35,950		25,358	
36240 87	For nuclear uses, including unmachined stock and machined parts for use in nuclear reactors and for in processing nuclear materials.....					
36240 89	For all other uses, including chemical, metallurgical, refractory, etc...					
36240 00	Carbon and graphite products, n.s.k.....		1,184		911	

See footnotes at end of table.



TABLE 6A-1. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3629--	ELECTRICAL INDUSTRIAL APPARATUS, N.E.C., TOTAL.....		(X)	250,474	(X)	213,073
36291--	Capacitors for industrial use (except for electronic applicators).....		(X)	51,430	(X)	57,122
36291 11	Power capacitors, including shunt and series capacitors and accessories.....		(X)	22,202	(X)	22,635
36291 31	A.c. capacitors (except electrolytic):					
36291 35	General purpose for motors, controls, etc.....	1,000 units...	6,118	14,351	4,813	11,506
36291 98	Capacitors for fluorescent lamp ballasts.....	..do.....	18,351	12,120	15,251	13,399
36291 98	Other capacitors, except for electronic applications.....		(X)	2,757	(X)	9,582
36292--	Rectifying apparatus.....		(X)	86,898	(X)	73,072
	Rectifying (power conversion) apparatus (except for electronic applications) including all apparatus using semiconductors and/or electron tubes as power conversion means:					
	Semiconductor power conversion apparatus:					
	Semiconductor battery chargers:					
36292 21	Automotive.....	No. of units..	758,601	16,436	(NA)	5,924
36292 25	Industrial and railroad.....	..do.....	182,250	9,646	(NA)	8,639
36292 31	Semiconductor computer supplies.....		(X)	( <sup>5</sup> )	(X)	9,339
	Semiconductor high-voltage power supplies in excess of 2kv. (excluding separate associated apparatus such as controls, capacitors, switch gear, etc.):					
36292 41	100 kw. and below.....		}	(X) 8,528	(X)	6,221
36292 45	Above 100 kw.....					
36292 49	All other a.c. to d.c. semiconductor power conversion apparatus.....		(X)	19,128	(X)	7,767
36292 51	Power mercury arc rectifiers.....		(X)	10,971	(X)	11,456
36292 98	Other rectifying (power conversion) apparatus.....		(X)	20,737	(X)	22,328
36292 00	Rectifying apparatus, n.s.k.....		(X)	1,452	(X)	1,398
36293--	Other electrical equipment for industrial use.....		(X)	103,681	(X)	77,064
36293 11	Coil windings, electrical.....	1,000 units...	20,026	45,572	(NA)	39,977
36293 98	Other miscellaneous electrical equipment for industrial use, n.e.c.....		(X)	58,109	(X)	37,087
36290 00	Electrical industrial apparatus, n.s.k.....		(X)	8,465	(X)	5,815

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>See Current Industrial Reports Series M36C, Fluorescent Lamp Ballasts, for more detailed product data.

<sup>2</sup>Included with code 3612198 to avoid disclosing operations of individual companies.

<sup>3</sup>Represents over 95 percent of the total value of shipments.

<sup>4</sup>Represents between 80 and 90 percent of total value of shipments.

<sup>5</sup>Data for product code 3629231 in 1963 are included with 3629251 to prevent disclosing figures for individual companies.

TABLE 6A-2. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
36111 --	Integrating instruments, electrical, total.....	(X)	89,219	(X)	88,809
	A.c. watt-hour meters:				
	Single phase:				
36111 10	Detachable types.....	2,762,273	42,349	2,620,000	41,051
36111 12	Base types.....	(X)	(1)		
36111 13	House types.....	(X)	(1)		
36111 14	Switchboard types.....	(X)	(1)		
36111 15	Polyphase.....	235,038	8,363	174,000	8,094
36111 33	Combined watt-hour and demand meters, single phase and polyphase, and combined watt-hour and time switch meters.....	173,765	12,511	168,000	9,278
36111 41	Demand meters (including kw. and kv.-a.).....	22,931	2,733	69,000	1,821
36111 51	Other electrical integrating meters, including d.c. watt-hour meters, ampere-hour meters, and other miscellaneous integrating instruments not included in the above classifications.....	50,634	13,228	(X)	12,124
36111 61	Parts for integrating meters, electrical type (including meter mounting and test equipment), sold separately.....	(X)	20,035	(X)	14,593
36111 00	Integrating instruments, electrical, n.s.k.....	-	-	(X)	1,848
36112 --	Test, measuring, and analyzing equipment for electronic and electrical circuits and equipment, total.....	(X)	427,248	(X)	341,883
	Voltage, current, and resistance measuring equipment (except multimeters):				
	Electronic:				
36112 20	Digital.....	(X)	26,390	(X)	22,389
36112 21	Analog.....	(X)	18,889		
36112 22	Electrical (service-type equipment).....	(X)	3,821		
36112 23	Multimeters:	(X)	7,794		
36112 24	Electronic.....	(X)	2,714		
	Power and energy measuring equipment:				
	Electronic:				
36112 25	Analog.....	(X)	3,753	(X)	18,391
36112 26	Digital.....	(X)	1,814		
36112 27	Electrical power measuring equipment.....	(X)	1,814		
	Frequency measuring equipment:				
	Frequency meters, electronic:				
36112 67	890 Megacycles and above.....	5,526	1,839	(X)	34,901
36112 68	Other.....	16,765	17,733		
36112 69	Frequency meters, electrical and mechanical.....	47,901	3,524		
	Waveform measuring and/or analyzing equipment:				
	Oscilloscopes and plug-in accessories:				
36112 12	Under 10 mc.....	(X)	16,164	(X)	7,488
36112 13	10 mc. and over.....	(X)	53,864		
36112 14	Oscillographs (low frequency).....	(X)	15,500		
36112 16	Other waveform measuring and analyzing equipment.....	(X)	15,500		
	Signal generating equipment:				
36112 56	Audio.....	(X)	11,540	(X)	31,605
36112 58	RF (over 20 kc. to 890 megacycles).....	(X)	16,484		
36112 59	Microwave (890 megacycles and above).....	(X)	11,136		
36112 39	Analyzers for testing characteristics of internal combustion engines...	(X)	27,479		

See footnotes at end of table.



**TABLE 6A-2. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958**

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
36112 --	Test, measuring, and analyzing equipment for electronic and electrical circuits and equipment--Continued				
	Field strength and intensity measuring equipment (including RFI measuring equipment):				
36112 91	Electronic.....	(X)	7,400		
36112 92	Electrical field measuring equipment.....	(X)	235		
	Impedance and standing wave ratio measuring equipment (transfer function measuring equipment):				
36112 93	Electronic impedance and related measuring equipment.....	(X)	6,346		
36112 94	Standing wave measuring equipment (slotted lines, sliding shorts, reflectometers, and other SWR equipment).....	(X)	5,620		
36112 96	Time measuring and counting equipment, electronic (electronic chronoscopes and chronometers, range calibrators, time interval measuring equipment, etc.).....	(X)	10,426		
36112 97	X - Y plotters, electronic.....	(X)	9,063		
36112 99	X - Y plotters, other than electronic.....	(X)			
	Multifunction test and measuring equipment:				
36112 44	Combination and/or group test sets.....	(X)	16,390	(X)	190,687
	Component part test sets:				
36112 45	Electron tube test equipment.....	(X)	7,760		
36112 46	Semiconductor test equipment.....	(X)	5,939		
36112 47	Other component part test sets and equipment.....	(X)	4,506		
36112 48	Equipment and subassembly test equipment, n.e.c.....	(X)	46,574		
	Standards and calibration equipment for test and measuring equipment (excluding laboratory types):				
36112 71	Electronic.....	(X)	7,373		
36112 73	Electrical.....	(X)	5,640		
36112 52	Microwave test equipment, n.e.c. (890 megacycles and above).....	(X)	13,603		
36112 82	Associated devices for electronic and electrical test and measuring equipment (electronic component parts, connectors, filters, etc., are collected as part of Current Industrial Reports, Series M36N).....	(X)	13,839		
36112 98	Other test measuring and analyzing equipment for electronic and electrical circuits and equipment.....	(X)	26,096		
36112000	Test, measuring, and analyzing equipment for electronic and electrical circuits and equipment, n.s.k.....	-	-	(X)	22,380
36113 --	Other electrical measuring instruments, total.....	(X)	191,039	(X)	140,053
	Electrical indicating instruments, defined as instruments wherein a pointer is made to move over a calibrated scale, such movement being effected by the action of the electrical current and/or voltage (panel type instruments, including aircraft types, but excluding instruments for use on motor vehicles, which are capable of accuracies within + or - 2% of full scale indication, but including + or - 3% miniaturized instruments and rectifier instruments, and can be enclosed in a case suitable for mounting on a panel, and which are an end product.)				
	Panel types other than ruggedized or sealed (generally of 2% accuracy not exceeding 4.5" flange diameter):				
36113 12	A.c. (including moving iron vane and dynamometer types).....	366,989	4,568		22,869
36113 13	D.c. (including rectifier and thermocouple types).....	1,468,638	16,316		
	Panel types ruggedized or sealed (generally of 2% accuracy not exceeding 4.5" flange diameter):				
36113 14	A.c. (including moving iron vane and dynamometer types).....	116,405	1,424		
36113 15	D.c. (including rectifier and thermocouple types).....	607,003	6,446		
	Panel types with control or signal initiating means (including instrument relays):				
36113 16	Indicating.....	121,005	10,067	(X)	17,388
36113 17	Nonindicating.....				
36113 18	All other panel type instruments.....	81,332	4,247		
	Switchboard instruments, which are generally of accuracies within + or - 1% of full scale indication, and can be enclosed in a case suitable for mounting on a panel, and which are an end product, and are magnetically shielded, and are 4 inches or larger in size:				
36113 23	A.c. (including moving iron vane and dynamometer types).....	52,296	3,918		8,686
36113 25	D.c. (including rectifier and thermocouple types).....	61,132	3,157		

See footnotes at end of table.

TABLE 6A-2. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Total shipments including interplant transfers					
		1963		1958			
		Quantity	Value (\$1,000)	Quantity	Value (\$1,000)		
36113 --	Other electrical measuring instruments--Continued						
	Portable instruments, which are generally capable of accuracies within + or - 2% full scale indication, and can be enclosed in a case so that they can be moved and used at various locations, and which are an end product:						
	Portable types (accuracy rating 0.11% thru 0.50%):						
36113 32	A.c. (current and voltage, including moving iron vane and dynamometer).....	10,919	1,527	}	(X)		
36113 33	D.c. (current and voltage).....	10,896	1,216				
36113 34	All other (including watt, var, PF, phase angle, etc.).....	(NA)	170				
	Portable types (accuracy rating 0.51% thru 2%):						
36113 36	A.c. (current and voltage, including moving iron vane and dynamometer).....	7,730	477	}	(X)		
36113 37	D.c. (current and voltage).....	7,284	453				
36113 38	All other (including watt, var, PF, phase angle, etc.).....	1,324	305				
36113 35	Laboratory portable instruments, with accuracies within + or - 1% up to 1/10% of full scale and better, all case sizes.....	9,583	2,639	(X)	4,904		
	Self balancing:						
36113 63	Indicating, noncontrolling.....	}	(X)	(X)	13,838		
36113 64	Indicating, with electrical control.....						
36113 65	Indicating, with pneumatic control.....						
36113 45	Other electrical indicating instruments, except motor vehicle and test equipment.....						
	Electrical recording instruments (portable and for panel mounting not including control types):						
	Direct deflecting (direct acting), except potentiometer, self or oscillographic types:						
36113 60	A.c.....	5,983	1,755	}	(X)		
36113 61	D.c.....	}	3,743				
36113 62	Other.....						
	Self balancing:						
36113 66	Recording, noncontrolling.....	4,743	4,759	}	(X)		
36113 67	Recording, with electrical control.....	}	1,284				
36113 68	Recording, with pneumatic control.....						
	Oscillographic:						
36113 69	Galvanometer type.....	23,261	59,061	}	(X)		
36113 70	Oscilloscope type.....	}	20,956				
36113 72	Other electrical recording instruments.....						
36113 71	Parts for indicating and recording instruments.....	(X)	14,228	(X)	10,387		
36113 81	Instrument transformers.....	(X)	19,372	202,000	12,607		
36113 85	Ammeters and voltmeters for motor vehicles.....	1,870,256	2,765	1,894,000	3,015		
36113 00	Other electrical measuring instruments, n.s.k.....	-	-	(X)	4,661		

Source: Current Industrial Reports Series M38B, "Selected Instruments and Related Products."

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Included with 3611151 to avoid disclosing operations of individual companies.



TABLE 6A-3. Switchgear, Switchboard Apparatus and Relays--Quantity and Value of Shipments: 1963 and 1958

Product code	Product <sup>1</sup>	Value of shipments including interplant transfers (\$1,000)	
		1963	1958
36131 --	Switchgear, including power switchgear assemblies and other switching and interrupting devices, 2,300 volts and over, total.....	416,950	419,932
36131 11	Automatic and manual panels (generator, transformers, feed-control, etc.).....	14,769	32,081
36131 15	Metal enclosed switchgear (using power-circuit breakers, oil and oilless, and low voltage air-circuit breakers).....	97,290	136,517
36131 17	Metal enclosed bus bar structures, over 750 volts (for sale separately).....	4,421	14,941
36131 31	Relays (except instrument and circuit), regulators, and miscellaneous switchboard devices (for sale separately).....	39,950	47,589
	Power switching equipment (including attachments, auxiliaries, bus supports and fittings, and accessories, but excluding power fuses sold separately):		
36131 41	Outdoor.....	43,091	36,276
36131 45	Indoor.....	6,323	7,908
36131 51	Power and distribution fuses and fuse links for 2,300 volts and over, a.c. service (excluding distribution cut-outs).....	29,726	8,994
36131 81	Power connectors (excluding connectors used under National Electrical applications).....		9,902
36131 83	Distribution cut-outs.....		16,050
	Duct, including plug-in units and accessories (not exceeding 750 volts consisting of enclosed sectionalized prefabricated bus bars rated 20 amperes or more and associated structures and fittings):		
36131 86	Busways.....	31,003	23,182
36131 88	Trolley-type.....	1,829	
	Relays, circuit:		
36131 91	A.c. and d.c. magnetic control circuit relays, excluding overload relays.....	119,366	81,601
36131 94	Overload relays.....	9,574	4,891
36132 --	Circuit breakers, total.....	211,629	200,990
36132 43	Power circuit breakers (all voltage).....	99,112	81,596
36132 52	Molded case circuit breakers assembled as complete units in supporting and enclosing housings of insulating materials; with or without accessories or attachments.....	88,040	50,559
36132 56	Individually enclosed molded case circuit breakers (excluding panelboards and busway plugs, but including a group of such breakers in a single cabinet intended to function as service equipment) (750 volts and under).....	13,964	40,447
36132 98	Other circuit breakers.....	10,513	28,388
36133 --	Low voltage panelboards and distribution boards and other switching and interrupting devices, 750 volts and under, total.....	282,435	224,223
	Panelboards and distribution boards:		
	Panelboards (including enclosing cabinets):		
36133 11	Fusible (including combination switch and fuse).....	31,215	16,628
36135 12	Circuit breaker.....	45,243	35,629
	Distribution switchboards:		
36133 15	Fusible.....	15,037	9,904
36133 17	Circuit breaker.....	36,314	18,545
36133 19	Other (including theater switchboards).....	9,027	8,403
	Switches (except switches commonly known as snap, toggle, and rotary switches; and switch devices intended primarily to be used with electric motor controls):		
	Knife switches, open and enclosed:		
36133 21	Open knife switches, parts and switch interiors.....	6,674	4,134
36133 23	Enclosed safety switches (including pull out types).....	35,786	49,057
	Load centers:		
36133 24	Enclosed fusible, service entrance, and branch circuit cut-outs.....	14,829	14,213
36133 26	Circuit breaker type.....	26,748	
36133 27	Time switches (repetitive with respect to fixed time of day).....	10,681	7,065
36133 29	Other switches (excluding snap, toggle, push, etc., but including meter service equipment, other than meter mounting and test devices).....	12,502	19,797
36133 98	Other switchgear and switchboard apparatus.....	38,379	22,941
36133 00	Low voltage panelboards and distribution boards and other switching and interrupting devices, 750 volts and under, n.s.k.....	-	17,907
36134 --	Fuses and fuse equipment, under 2,300 volts (except power distribution cut-outs), total.....	39,972	30,675
36134 31	Nonrenewable plug fuses <sup>1</sup> .....	7,270	7,785
36134 51	Nonrenewable cartridge fuses <sup>2</sup> .....	13,247	9,274
36134 71	Renewable plug and cartridge fuses (including renewal links).....	4,215	5,626
36134 93	Other fuses and open fuse material (including cut-outs, clips, bases, etc.).....	15,240	6,886
36134 00	Fuses and fuse equipment, under 2,300 volts, n.s.k.....	-	1,104

Source: Current Industrial Reports Series M36A, "Switchgear, Switchboard Apparatus, Relays, and Industrial Controls."

- Represents zero.

n.s.k. Not specified by kind.

<sup>1</sup>For 1963, quantity reported totaled 140,905.<sup>2</sup>For 1963, quantity reported totaled 46,284.

TABLE 6A-4. Motors and Generators: 1963 and 1958

Product code	Product	Total shipments including interplant transfers	
		Quantity	Value (\$1,000)
		1963	
		(1,000 units)	
36211 --	Fractional horsepower motors (excluding hermetics), total.....	99,035	592,363
36211 01	Automobile accessory motors (including all accessory motors, such as heater, convertible top, automatic windows, etc.; excluding starting motors and generators).....	28,876	120,685
	Aircraft and space motors (excluding generators):		
36211 03	A.c.....	147	13,773
36211 04	D.c.....	140	12,878
36211 05	Toy motors (all sizes) (including those for advertising displays, etc.)....	1,365	1,821
36211 07	Clock-type synchronous and subsynchronous timing motors.....	12,240	15,294
	Universal:		
	Cased motors (punching diameter):		
36211 08	Less than 2-1/8" in diameter.....	266	1,216
36211 09	2-1/8" in diameter and over but less than 2-7/16" in diameter.....	1,042	3,387
36211 10	2-7/16" in diameter and over but less than 2-7/8" in diameter.....	1,017	5,287
36211 11	2-7/8" in diameter and over but less than 3-3/16" in diameter.....	1,240	9,116
36211 12	3-3/16" in diameter and over but less than 3-11/16" in diameter.....	436	5,049
36211 13	3-11/16" in diameter and over but less than 4-3/8" in diameter.....	96	3,246
36211 14	4-3/8" in diameter and over.....	19	598
	Uncased motors (punching diameter) (consisting of stator, rotor, and brush holder mechanisms, without end shields, bearings, or conventional frame, usually called "motor parts"):		
36211 15	Less than 2-1/8" in diameter.....	247	2,471
36211 16	2-1/8" in diameter and over but less than 2-7/16" in diameter.....		
36211 17	2-7/16" in diameter and over but less than 2-7/8" in diameter.....	256	966
36211 18	2-7/8" in diameter and over but less than 3-3/16" in diameter.....	194	800
36211 19	3-3/16" in diameter and over but less than 3-11/16" in diameter.....	595	2,620
36211 20	3-11/16" in diameter and over but less than 4-3/8" in diameter.....	225	1,713
36211 21	4-3/8" in diameter and over.....	27	501
	Direct current motors and generators (case diameter) (excluding automotive starting motors, generators, and accessory motors):		
36211 22	Less than 3" in diameter (up to 1/70 hp.).....	611	9,522
36211 23	3" in diameter and over but less than 4-5/8" in diameter (1/70 hp. and over but less than 1/20 hp.).....	111	2,315
36211 24	4-5/8" in diameter and over but less than 6" in diameter (1/20 hp. and over but less than 1/6 hp.).....	355	6,429
36211 25	6" in diameter and over but less than 7-1/8" in diameter (1/6 hp. and over but less than 1 hp.).....	789	13,975
36211 26	7-1/8" in diameter and over but less than 9" in diameter (1/6 hp. and over but less than 1 hp.).....	25	3,253
	Alternating current:		
	Skeleton type shaded pole motors:		
	Less than 2-3/4" in diameter:		
36211 31	Less than 5 mhp.....	3,916	9,746
36211 33	Over 5 mhp.....	481	1,178
	2-3/4" in diameter and over:		
36211 35	Less than 5 mhp.....	1,523	4,215
36211 37	5 mhp. and over but less than 35 mhp.....	3,609	5,480
36211 39	35 mhp. and over.....	1,341	4,396
	Conventional type shaded pole motors (case diameters):		
36211 41	Less than 1-1/2" in diameter, all horsepower ratings built in this diameter.....	203	676
	1-1/2" in diameter and over but less than 2-1/2" in diameter:		
36211 42	Less than 5 mhp.....	1,752	2,222
36211 43	5 mhp. and over but less than 16 mhp.....	1,413	5,530
36211 44	16 mhp. and over.....	819	1,528
	2-1/2" in diameter and over but less than 3-3/4" in diameter:		
36211 45	Less than 16 mhp.....	3,741	13,350
36211 46	16 mhp. and over but less than 1/20 hp.....	6,439	19,626
36211 47	1/20 hp. and over but less than 1/10 hp.....		
36211 48	1/10 hp. and over.....	300	1,289
	3-3/4" in diameter and over but less than 4-1/2" in diameter:		
36211 49	Less than 16 mhp.....	41	300
36211 51	16 mhp. and over but less than 1/20 hp.....	239	1,874
36211 52	1/20 hp. and over but less than 1/10 hp.....	471	4,118
36211 53	1/10 hp. and over.....	135	1,090
	4-1/2" in diameter and over but less than 5-1/4" in diameter:		
36211 54	Less than 1/20 hp.....	131	694
36211 55	1/20 hp. and over but less than 1/10 hp.....	1,023	6,657
36211 56-58	1/10 hp. and over.....	584	6,075

See footnotes at end of table.



TABLE 6A-4. Motors and Generators: 1963 and 1958--Continued

Product code	Product	Total shipments including interplant transfers	
		Quantity	Value (\$1,000)
		1963	
		(1,000 units)	
36211 --	Fractional horsepower motors (excluding hermetics)—Continued		
	Alternating current—Continued		
	Conventional type shaded pole motors (case diameters)—Continued		
36211 59	5-1/4" in diameter but less than 9" in diameter (all hp. ratings).....	1,782	17,561
	Other a.c. motors (case diameter) (including subfractional and fractional synchronous and subsynchronous timing motors, other than clock type):		
36211 61	Less than 2-1/2" in diameter, all horsepower ratings built in this diameter.....	127	6,742
	2-1/2" in diameter and over but less than 3-3/4" in diameter:		
36211 62	Less than 16 mhp.....	380	6,755
36211 63	16 mhp. and over but less than 1/20 hp.....	261	4,015
36211 64	1/20 hp. and over but less than 1/10 hp.....	58	563
36211 65	1/10 hp. and over but less than 1/4 hp.....	85	1,673
36211 66	1/4 hp. and over.....	26	792
	3-3/4" in diameter and over but less than 4-3/8" in diameter:		
36211 67	Less than 16 mhp.....	30	617
36211 68	16 mhp. and over but less than 1/20 hp.....	94	1,764
36211 69	1/20 hp. and over but less than 1/10 hp.....	107	1,789
36211 70	1/10 hp. and over but less than 1/6 hp.....	27	466
36211 71	1/6 hp. and over.....	877	8,419
	4-3/8" in diameter and over but less than 5-3/8" in diameter:		
36211 72	Less than 1/20 hp.....	32	548
36211 73	1/20 hp. and over but less than 1/10 hp.....	401	5,662
36211 74	1/10 hp. and over but less than 1/6 hp.....	372	4,320
36211 75	1/6 hp. and over but less than 1/3 hp.....	165	3,664
36211 76	1/3 hp. and over.....	176	4,150
	5-3/8" in diameter and over but less than 6" in diameter:		
36211 81	Less than 1 hp.....	4,926	62,075
36212 03	1 hp. and over.....		
	6" in diameter and over but less than 7-1/8" in diameter:		
36211 83	Less than 1 hp.....	10,592	130,114
36212 05	1 hp. and over.....	109	3,925
	7-1/8" in diameter and over but less than 9" in diameter:		
36211 85	Less than 1 hp.....	161	7,523
36212 07	1 hp. and over.....		
36212 --	Integral horsepower motors and generators, other than for land transportation equipment (for a.c. and d.c. motors, 200 hp. and below, the horsepower shown is for open type frame at a speed of 1,800 r.p.m. Motors at other speeds and enclosures have been converted to equivalent ratings at 1,800 r.p.m.), total <sup>1</sup> .....	1,666,223	363,497
	Integral horsepower motors (excluding cranking motors for internal combustion engines; propulsion motors for land transportation; motors mounted on the same shaft as arc welding generators; and hermetics):		
36212 01	Aircraft and space motors (including a.c. and d.c. but excluding generators) all integral hp. ratings.....	51,202	4,140
	Alternating current:		
36212 11	Single phase, all hp. ratings.....	178,367	14,651
	Polyphase—induction:		
36212 21	1-5 hp.....	752,305	58,088
36212 22	5.1-20 hp.....	272,973	51,638
36212 23	21-50 hp.....	73,030	30,027
36212 26	51-125 hp.....	28,055	30,047
36212 27	126-200 hp.....	9,439	19,349
36212 28	201-500 hp.....	3,048	16,407
36212 29	Over 500 hp.....	1,119	18,117
	Synchronous motors:		
36212 31	450 r.p.m. or below (all hp. ratings).....	449	6,304
36212 32	Above 450 r.p.m. (all hp. ratings).....	917	8,480
	Direct current motors and generators (excluding all arc welding generators, battery charging generators for internal combustion engines and generators used as an integral part of land transportation equipment):		
36212 41	1-5 hp. (3/4-4 kw.).....	13,827	5,360
36212 42	5.1-20 hp. (4.1-15 kw.).....	10,746	11,352
36212 43	21-50 hp. (16-40 kw.).....	7,823	9,423
36212 46	51-200 hp. (41-150 kw.).....	4,337	14,227
36212 47	201-500 hp. (151-400 kw.).....	1,764	14,110
36212 48	Over 500 hp. (over 400 kw.).....	363	17,062

See footnotes at end of table.

TABLE 6A-4. Motors and Generators: 1963 and 1958--Continued

Product code	Product	Total shipments including interplant transfers	
		Quantity	Value (\$1,000)
		1963	
		(number of units)	
36212	Integral horsepower motors and generators, other than for land transportation equipment (for a.c. and d.c. motors, 200 hp. and below, the horsepower shown is for open type frame at a speed of 1,800 r.p.m. Motors at other speeds and enclosures have been converted to equivalent ratings at 1,800 r.p.m.)—Continued		
	Integral horsepower motors (excluding cranking motors for internal combustion engines; propulsion motors for land transportation; motors mounted on the same shaft as arc welding generators; and hermetics)—Con.		
	Alternating current generators (excluding all arc welding generators and generators used as an integral part of land transportation equipment and steam, gas-, and hydraulic-turbine driven generators):		
	450 r.p.m. and slower speeds (all kw. ratios).....	80	1,480
	Over 450 r.p.m.:		
36212 53	3/4-5 kw.....	8,051	1,306
36212 54	5.1-15 kw.....	4,854	3,258
36212 55	15.1-50 kw.....	5,848	6,389
36212 56	50.1-150 kw.....	2,937	3,448
36212 57	150.1-400 kw.....	863	3,582
36212 59	Over 400 kw.....	464	7,514
36213 --	Land transportation motors, generators, and control equipment and parts, total.....	(X)	89,468
36213 11	Railway motors and generators, including those used for control purposes (for trolley cars, trolley coaches, rapid transit cars, trolley locomotives, third-rail locomotives, multiple unit cars for railway service, and mining locomotives) and parts and supplies.....	(X)	33,672
36213 31	Motors and generators, including those used for control purposes, for gasoline-electric and Diesel-electric buses, trucks, locomotives, rail cars, and parts and supplies.....	(X)	31,392
36213 51	All other land transportation motors, including those used for control purposes, for storage-battery powered transportation equipment (for industrial trucks, mining locomotives, and other transportation equipment) and parts and supplies.....	(X)	6,556
36213 98	Other electrical apparatus for land transportation equipment.....	(X)	17,848
36214 --	Prime mover generator sets, except steam or hydraulic turbines, total <sup>1</sup> .....	63,556	102,694
	Generator set units, except steam, gas, and water turbine sets:		
	Gasoline-engine driven generator sets:		
36214 12	D.c. output (all ratings).....	6,459	4,300
	A.c. output:		
36214 13	Under 3/4 kw.....	528	115
36214 14	3/4 kw.-5 kw.....	41,112	13,313
36214 15	5.1 kw.-15 kw.....	4,836	6,480
36214 16	15.1 kw. and over.....	1,830	6,097
	Diesel-engine driven generator sets:		
36214 31	D.c. output (all kw. ratings).....	879	3,203
	A.c. output:		
36214 32	Less than 50 kw.....	4,122	8,904
36214 33	51-250 kw.....	3,190	24,845
36214 34	251 kw. and over.....	600	35,437
36215 --	Motor generator sets and other rotating equipment (including dynamotors, converters, inverters, and frequency changers), total <sup>1</sup> .....	(X)	239,111
36215 11	Synchronous converters and double current generators.....	14,939	5,292
36215 21	Other motor-generator sets:		
	Fractional horsepower, a.c. and d.c. output (less than 3/4 kw.).....	62,752	8,270
	Integral horsepower:		
	A.c. output, based on the rating of the largest a.c. generator:		
36215 32	3/4-150 kw.....	6,980	18,520
36215 33	Over 150 kw.....	145	2,131
	D.c. output, based on the rating of the largest d.c. generator:		
36215 34	3/4-170 kw.....	9,765	17,248
36215 36	Over 170 kw.....	417	16,041
	Other rotating equipment:		
36215 53	Synchros, servos, rate generators, resolvers, and combinations (including subfractional-under 1/100 hp. motors).....	(X)	50,199
36215 57	Synchro-type components.....	(X)	2,894
36215 97	All hermetic motors.....	11,249,370	106,956
36215 98	All other rotating equipment.....	(X)	11,560

See footnotes at end of table.



TABLE 6A-4. Motors and Generators 1963 and 1958--Continued

Product code	Product	Total shipments including interplant transfers	
		Quantity	Value (\$1,000)
		1958	
		(1,000 units)	
36211 --	Fractional horsepower motors <sup>1</sup> .....	(X)	435,820
36211 10	Aircraft (all types, except synchros, selsyns, and autosyns).....	(X)	34,761
	A.c. types:		
36211 12	Under 1/20 hp.....	366	15,979
36211 13	1/20 hp. and over but not including 1 hp.....	57	6,795
	D.c. types:		
36211 16	Under 1/20 hp.....	178	6,058
36211 17	1/20 hp. and over but not including 1 hp.....	52	5,929
36211 21	Clock-type synchronous and subsynchronous timing motors.....	5,984	8,292
36211 23	Subfractional (under 1/100 hp.) used with synchro and servo devices.....	57	2,552
	Universal (other than listed above):		
36211 24	Below 1/100 hp. (including toy motors).....	24	156
36211 25	1/100 hp. and over but not including 1/40 hp.....	712	4,376
36211 26	1/40 hp. and over but not including 1/20 hp.....	684	5,592
36211 27	1/20 hp. and over but not including 1/10 hp.....	2,412	10,684
36211 28	1/10 hp. and over but not including 1/6 hp.....	666	3,364
36211 29	1/6 hp. and over but not including 1 hp.....	2,037	21,511
	D.c. motors (other than listed above):		
36211 71	Below 1/100 hp. (including toy motors).....	2,039	6,796
36211 72	1/100 hp. and over but not including 1/70 hp.....	58	623
36211 73	1/70 hp. and over but not including 1/40 hp.....	201	889
36211 74	1/40 hp. and over but not including 1/20 hp.....	653	3,226
36211 75-79	1/20 hp. and over but not including 1 hp.....	8,025	36,807
	Shaded pole a.c. motors:		
36211 81	Below 1/100 hp. (including toy motors).....	7,587	20,363
36211 82	1/100 hp. and over but not including 1/70 hp.....	2,860	9,969
36211 83	1/70 hp. and over but not including 1/40 hp.....	2,222	6,777
36211 84	1/40 hp. and over but not including 1/20 hp.....	1,990	9,830
36211 87	1/20 hp. and over but not including 1/10 hp.....	1,485	9,853
36211 89	1/10 hp. and over but not including 1/6 hp.....	467	4,295
	Other a.c. motors:		
36211 91	Below 1/100 hp. (including toy motors).....	150	1,654
36211 92	1/100 hp. and over but not including 1/20 hp.....	1,258	6,038
36211 93	1/20 hp. and over but not including 1/10 hp.....	797	8,790
36211 94	1/10 hp. and over but not including 1/6 hp.....	1,722	17,705
36211 95	1/6 hp. and over but not including 1/3 hp.....	5,082	55,387
36211 96	1/3 hp. and over but not including 1/2 hp.....	7,052	88,608
36211 98	1/2 hp. and over but not including 1 hp.....	2,000	47,396
36211 00	Fractional horsepower motors, n.s.k.....	(X)	9,526
		(number of units)	
36212 --	Integral horsepower motors and generators, other than for land transportation equipment <sup>1</sup> .....	(X)	430,458
	Alternating current:		
36212 11	Single phase, all sizes.....	628,346	25,551
	Polyphase-induction:		
36212 21	1 to 5 hp.....	641,076	57,981
36212 22	5.1 to 20 hp.....	216,971	46,097
36212 23	21 to 50 hp.....	44,755	26,719
36212 26	51 to 125 hp.....	18,573	22,678
36212 27	126 to 200 hp.....	7,094	19,719
36212 28	201 to 500 hp.....	2,727	15,584
36212 29	Over 500 hp.....	2,159	34,595
	Synchronous and other a.c. motors:		
36212 36	1 to 50 hp.....	1,261	205
36212 37	51 to 500 hp.....	607	4,910
36212 39	Over 500 hp.....	497	12,461
	D.c. motors and generators (excluding all arc welding generators, battery charging generators for internal combustion engines, and generators used as integral part of land transportation equipment):		
36212 41	1 to 5 hp.....	12,218	4,441
36212 42	5.1 to 20 hp.....	18,238	13,239
36212 43	21 to 50 hp.....	4,156	8,189
36212 44	51 to 200 hp.....	3,075	17,847
36212 45	201 to 500 hp.....	1,134	12,273
36212 49	Over 500 hp.....	190	21,849
	A.c. generators (excluding all arc welding generators and generators used as integral part of land transportation equipment):		
36212 52	Under 16 kw.....	24,956	10,332
36212 55	16 to 150 kw.....	9,473	12,173
36212 56	151 to 400 kw.....	936	5,169
36212 59	Over 500 kw.....	338	37,586
36212 98	Other integral horsepower generators.....	(X)	20,860
36212 00	Integral horsepower generators, n.s.k.....		

See footnotes at end of table.

TABLE 6A-4. Motors and Generators: 1963 and 1958 -Continued

Product Code	Product	Total shipments including interplant transfers	
		Quantity	Value (\$1,000)
		1958	
		(number of units)	
36213 --	Motors, generators, and control apparatus (and parts) for land transportation equipment.....	(X)	52,367
36213 11	Railway motors, generators, and control equipment (for trolley cars, trolley coaches, rapid transit cars, trolley locomotives, third rail locomotives, multiple unit cars for railway service and mining locomotives) and parts and supplies.....	(X)	( <sup>2</sup> )
36213 31	Motors, generators, and control equipment for gasoline-electric and Diesel-electric buses, trucks, locomotives, rail cars, and parts and supplies....	(X)	29,277
36213 51	Motors and control equipment for storage-battery powered transportation equipment (for industrial trucks, mining locomotives, and other transportation equipment) and parts and supplies.....	(X)	4,769
36213 98	Other electrical apparatus for land transportation equipment.....	(X)	<sup>2</sup> 18,321
36214 --	Prime mover generator sets other than steam or hydraulic turbine <sup>1</sup> .....	(X)	73,865
	Generator set units, except steam, gas, and water turbine sets:		
36214 11	Gasoline-engine driven generator sets.....	53,449	56,541
36214 31	Diesel-engine driven generator sets.....	2,264	15,425
36214 75	Other generator set units, including wind-driven (except steam, gas, and water turbine sets and motor-generator sets).....	(X)	1,899
36215 --	Motor-generator sets and other rotating equipment <sup>1</sup> .....	(X)	164,057
	Motor-generator sets (including dynamotors, converters, inverters, and frequency chargers):		
36215 11	Synchronous converters and double current generators.....	35,805	9,068
	Other motor-generator sets:		
36215 21	Fractional horsepower (less than 3/4 kw.).....	43,258	6,744
	Integral horsepower:		
36215 31	3/4 to 150 kw.....	19,483	62,768
36215 33	151 to 400 kw.....		
36215 35	Over 400 kw.....		
	Other rotating equipment:		
36215 53	Synchros, servos, rate generators, resolvers, and combinations.....	(X)	34,694
36215 57	Synchro type components.....	(X)	2,191
36215 98	All other rotating equipment.....	(X)	48,592
36210 00	Motors, generators, and motor-generator sets, n.s.k.....	(X)	25,942

Source: Current Industrial Reports Series M35H, "Motors and Generators."

-- Represents zero.

n.s.k. Not specified by kind.

<sup>1</sup>Excludes parts and supplies, except as indicated.<sup>2</sup>Railway motors, generators, and control equipment are included under code 3621398, "Other electrical apparatus for land transportation equipment."



TABLE 6A-5. Motors and Generators--Total and Commercial Shipments: 1963 and 1958

Product code	Product	1963				
		Total shipments including interplant transfers		Shipments to other companies (commercial shipments)		Produced and incorporated (quantity)
		Quantity	Value (\$1,000)	Quantity	Value (\$1,000)	
		(1,000 units)		(1,000 units)		(1,000 units)
36211 --	Fractional horsepower motors (excluding hermetics), total <sup>1</sup> .....	99,035	592,363	69,603	442,800	16,785
36211 01-26	Automobile accessory motors; aircraft and space motors; toy motors; clock type synchronous and subsynchronous timing motors; universal motors (cased and uncased); and direct current motors and generators.....	50,319	236,915	27,036	128,834	15,132
	Alternating current:					
	Skeleton type shaded pole motor:					
	Less than 2-3/4" in diameter:					
36211 31	Less than 5 mph.....	3,916	9,746	3,428	8,935	484
36211 33	Over 5 mph.....	481	1,178	401	1,038	-
36211 35-39	2-3/4" in diameter and over, all horsepower ratings.....	6,473	14,091	4,111	9,443	264
	Conventional type shaded pole motors:					
36211 41-48	Less than 3-3/4" in diameter, all horsepower ratings.....	14,667	44,221	14,330	42,756	905
36211 49-59	3-3/4" in diameter and over but less than 9" in diameter, all horsepower ratings.....	4,406	38,369	4,112	36,223	
	Other a.c. motors (including subfractional and fractional synchronous and subsynchronous timing motors, other than clock type):					
36211 61-71	Less than 4-3/8" in diameter.....	2,072	33,595	2,051	33,161	
36211 72-76	4-3/8" in diameter and over but less than 5-3/8" in diameter, all horsepower ratings.....	1,146	18,344	777	13,478	
	5-3/8" in diameter and over but less than 6" in diameter:					
36211 81	Less than 1 hp.....	4,926	62,075	4,518	57,916	
36212 03	1 hp. and over.....					
	6" in diameter and over but less than 7-1/8" in diameter:					
36211 83	Less than 1 hp.....	10,592	130,114	9,064	117,819	
36212 05	1 hp. and over.....	109	3,925			
	7-1/8" in diameter and over but less than 9" in diameter:					
36211 85	Less than 1 hp.....	161	7,523			
36212 07	1 hp. and over.....					
		(number of units)		(number of units)		(number of units)
36212 --	Integral horsepower motors and generators, other than for land transportation equipment (excluding hermetics), total <sup>1</sup> .....	1,666,233	363,497	1,608,104	329,825	8,522
36212 01	Aircraft and space motors, all integral horsepower ratings.....	51,202	4,140	47,735	4,069	-
	Alternating current:					
36212 11	Single phase, all horsepower ratings.....	178,367	14,651	173,153	14,389	5,776
	Polyphase--induction:					
36212 21	1-5 hp.....	752,305	58,088	733,651	56,578	546
36212 22	5.1-20 hp.....	272,973	51,638	262,901	49,767	
36212 23	21-50 hp.....	73,030	30,027	68,901	28,495	
36212 26	51-125 hp.....	28,055	30,047	26,219	27,828	
36212 27	126-200 hp.....	9,439	19,349	8,621	16,708	
36212 28	201-500 hp.....	3,048	16,407	2,759	14,417	-
36212 29	Over 500 hp.....	1,119	18,117	1,016	14,580	-
	Synchronous motors:					
36212 31	450 r.p.m. or below (all hp. ratings).....	449	6,304	346	4,859	-
36212 32	Above 450 r.p.m. (all hp. ratings).....	917	8,480	732	6,961	-
36212 41-48	Direct current motors and generators.....	38,860	71,539	35,905	62,190	-
36212 51-59	Alternating current generators.....	23,097	26,977	21,829	22,181	2,200
36213 --	Land transportation motors, generators, and control equipment and parts and supplies.....	(X)	89,468	(X)	85,550	(X)
36214 --	Prime mover generator sets, except steam or hydraulic turbine <sup>1</sup> .....	63,556	102,694	63,551	102,669	290
36215 --	Motor generator sets and other rotating equipment, total <sup>1</sup> .....	(X)	239,111	(X)	211,313	(X)
36215 11	Synchronous converters and double current generators.....	77,391	13,562	76,458	13,417	-
	Other motor-generator sets:					5,393
36215 21	Fractional horsepower, (a.c. and d.c. output less than 3/4 kw.).....					
	Integral horsepower:					
	A.c. output, based on the rating of the largest a.c. generator:					
36215 32	3/4-150 kw.....	6,980	18,520	9,753	17,741	-
36215 33	Over 150 kw.....	145	2,131	136	1,998	-

See footnotes at end of table.

TABLE 6A-5. Motors and Generators--Total and Commercial Shipments:  
1963 and 1958--Continued

Product code	Product	1953					
		Total shipments including interplant transfers		Shipments to other companies (commercial shipments)		Produced and incorporated (quantity)	
		Quantity	Value (\$1,000)	Quantity	Value (\$1,000)		
		(number of units)		(number of units)		(number of units)	
3621 pt.	MOTORS AND GENERATORS—Continued						
36215 --	Motor generator sets and other rotating equipment—Continued						
	Other motor-generator sets--Continued						
	Integral horsepower--Continued						
	D.c. output, based on the rating of the largest d.c. generator:						
	4/4-170 kw.....	9,765	17,248	9,167	15,450	-	
	Over 170 kw.....	417	16,041	391	15,214	-	
	Other rotating equipment:						
36215 53,	Synchros, servos, rate generators, resolvers, and combinations (including	(X)	50,199	(X)	48,528	(X)	
57	subfractional - under 1/100 hp. motors).....	(X)	2,894	(X)	2,846	(X)	
36215 57	Synchro-type components.....	11,249,370	106,956	8,596,696	84,578	-	
36215 97	All hermetic motors.....	(X)	11,560	(X)	11,541	(X)	
36215 98	All other rotating equipment.....						
		Value of shipments (\$1,000)					
		Total shipments including interplant transfers		Shipments to other companies (commercial shipments)			
		1958					
3621 pt.	MOTORS AND GENERATORS, TOTAL <sup>1</sup> .....		1,182,509			1,022,110	
36211 --	Fractional horsepower motors.....		435,820			365,226	
36211 11	Aircraft (all types, except synchros, selsyns, and autosyns).....		34,761			( <sup>2</sup> )	
36211 12	Clock-type synchronous and subsynchronous timing motors; subfractional (under 1/100 hp.) used with synchro and servo devices; universal (other than listed above).....		56,527			( <sup>2</sup> )	
36211 17	D.c. motors (other than listed above).....		48,341			( <sup>3</sup> )	
36211 18	Shaded pole a.c. motors.....		61,087			( <sup>2</sup> )	
36211 19	Other a.c. motors.....		225,578			190,314	
36211 00	Not specified by type.....		9,526			9,526	
36212 --	Integral horsepower motors and generators <sup>1</sup> .....		430,458			394,398	
36212 11	Single phase, all sizes.....		25,551			( <sup>2</sup> )	
36212 12	Polyphase—induction.....		223,373			213,014	
36212 13	Synchronous and other a.c. motors.....		17,576			15,031	
36212 14	D.c. motors and generators.....		77,838			( <sup>4</sup> )	
36212 15	A.c. generators.....		65,260			58,682	
36212 98	Other and, n.s.k.....		20,860			20,860	
36213 --	Motors, generators, and control apparatus (and parts) for land transportation equipment.....		52,367			52,367	
36213 11	Railway motors, generators, and control equipment.....		( <sup>5</sup> )			( <sup>5</sup> )	
36213 31	Motors, generators, and control equipment for gasoline-electric and diesel-electric buses, trucks, locomotives, rail cars, and parts and supplies....		29,277			29,277	
36213 51	Motors and control equipment for storage-battery powered transportation equipment (for industrial trucks, mining locomotives and other transportation equipment) and parts and supplies.....		4,769			4,769	
36213 98	Other electrical apparatus for land transportation equipment.....		<sup>5</sup> 18,321			<sup>5</sup> 18,321	
36214 --	Prime mover generator sets, other than steam or hydraulic turbine <sup>1</sup> .....		73,865			( <sup>2</sup> )	
36214 11	Gasoline-engine driven generator sets.....		56,541			( <sup>2</sup> )	
36214 31	Diesel-engine driven generator sets.....		15,425			15,425	
36214 75	Other, including wind-driven.....		1,899			( <sup>2</sup> )	
36215 --	Motor-generator sets and other rotating equipment <sup>1</sup> .....		164,057			( <sup>4</sup> )	
36215 11	Synchronous converters and double current generators.....		9,068			( <sup>2</sup> )	
	Other motor-generator sets:						
36215 21	Fractional horsepower (less than 3/4 kw.).....		6,744			( <sup>6</sup> )	
36215 31	Integral horsepower.....		62,768			( <sup>4</sup> )	
36215	Synchros, servos, rate generators, resolvers, combinations, and synchro type components.....		36,885			( <sup>6</sup> )	
36215 98	Other rotating equipment.....		48,592			( <sup>7</sup> )	
36210 00	Motors, generators, and motor-generator sets, n.s.k.....		25,942			(NA)	

- Represents zero.

(NA) Not available.

(X) Not applicable.

n.s.k. Not specified by kind.

<sup>1</sup>Excludes parts and supplies, except as indicated.<sup>2</sup>Commercial shipments represent over 95 percent of the total value of shipments.<sup>3</sup>Commercial shipments represent between 25 and 50 percent of the total value of shipments.<sup>4</sup>Commercial shipments represent between 80 and 90 percent of the total value of shipments.<sup>5</sup>Railway motors, generators, and control equipment are included under code 3621398, "Other electrical apparatus for land transportation equipment!"<sup>6</sup>Commercial shipments represent between 90 and 95 percent of the total value of shipments.<sup>7</sup>Commercial shipments represent between 60 and 80 percent of the total value of shipments.



TABLE 6A-6. Industrial Controls--Value of Shipments: 1963 and 1958

Product code	Product	Value of shipments including interplant transfers (\$1,000)	
		1963	1958
36220 --	Industrial controls, total.....	594,913	447,297
	General industry devices:		
36220 12	A.c. full voltage starters 600 volts or less, excluding controls for packaged adjustable speed drives and synchronous motor starters.....	80,593	75,367
36220 13	A.c. contactors, 600 volts or less, excluding controls for packaged adjustable speed drives and synchronous motor yield control.....	16,480	
36220 14	A.c. reduced voltage controls, 600 volts or less.....	21,036	12,528
36220 16	Motor control centers, 600 volts or less.....	50,481	35,808
36220 18	Starters and contactors for squirrel cage and wound rotor and synchronous motors, over 600 volts, air break and oil immersed.....	14,186	8,723
36220 19	D.c. general purpose controls.....	7,009	7,082
36220 41	Resistance welding controls, electronic and magnetic.....	8,169	3,048
36220 42	Pilot circuit devices, such as limit switches, interval timers, etc. (excluding relays).....	55,845	41,405
36220 44	Pushbuttons and pushbutton stations (excluding operators' desks and stations).....	27,949	
36220 81	Rheostats and resistors (except for electronic applications), sold separately <sup>1</sup> .....	8,538	17,279
36220 98	All other general industry devices (including brakes and low voltage synchronous motor starters).....	48,001	<sup>2</sup> 85,722
	Specific application controllers, including all systems:		
36220 45	Marine and Navy auxiliary controls and accessories.....	17,079	28,697
	Controls, constant and adjustable voltage, including all operators' desks and stations, for:		
36220 47	Metal mills.....	29,835	( <sup>2</sup> )
36220 48	Cranes and hoists.....	12,386	( <sup>2</sup> )
36220 49	Metal mill, crane, and hoist accessories, sold separately.....	2,388	( <sup>2</sup> )
36220 51	Electronic industrial controls, other than resistance welding controls, including automatic control equipment.....	35,129	40,021
36220 72	Engineered a.c. and d.c. control assemblies, including those for machine tool applications.....	38,158	28,569
36220 73	Other specific special purpose controllers, such as nonmetal mill and air-conditioning; specially engineered control assemblies; and all other controllers, whether magnetic or static.....	47,248	
36220 96	Controls for packaged adjustable speed drives, including electronic and nonelectronic and operators' desks and stations.....	26,710	( <sup>2</sup> )
36220 99	Renewal parts for industrial control equipment.....	47,693	17,279

Source: Current Industrial Reports Series MA-36A, "Switchgear, Switchboard Apparatus, and Industrial Controls."

<sup>1</sup>In 1963, quantity reported totaled 89,474.

<sup>2</sup>Combined with code 3622098, "All other general industry devices (including brakes and low voltage synchronous motor starters) in 1958.

TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

Product code	Product and year	Indexes (1954 = 100)		Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value			Production	Unit value
361--	Electric distribution products...1963.. 1958..	( <sup>1</sup> ) ( <sup>1</sup> )	( <sup>1</sup> ) ( <sup>1</sup> )	362--	Electric industrial apparatus...1963.. 1958..	( <sup>1</sup> ) ( <sup>1</sup> )	( <sup>1</sup> ) ( <sup>1</sup> )
3611-	Electrical measuring instruments....1963.. 1958..	( <sup>1</sup> )	( <sup>1</sup> )	3621-	Motors and generators.....1963.. 1958..	( <sup>4</sup> ) ( <sup>4</sup> )	( <sup>4</sup> ) ( <sup>4</sup> )
36111	Integrating instruments electrical.1963.. 1958..	111 106	115 115	36212	Integral horsepower motors and generators.....1963.. 1958..	88 85	105 124
36113	Other electrical measuring instru- ments.....1963.. 1958..	182 146	146 125	36214	Prime mover generator sets, ex- cept steam or hydraulic turbine...1963.. 1958..	102 62	107 123
3612-	Power, distribution, and speciality transformers <sup>2</sup> .....1963.. 1958..	125 88	89 114	3622-	Industrial controls .....1963.. 1958..	( <sup>1</sup> ) ( <sup>1</sup> )	( <sup>1</sup> ) ( <sup>1</sup> )
36121	Speciality transformers and floures- cent ballasts, except parts.....1963.. 1958..	140 99	107 120	3623-	Electric welding apparatus.....1963.. 1958..	154 113	132 129
36122	Power and distribution transformers except parts.....1963.. 1958..	119 85	83 113	36231	Arc welding machines components, and accessories, except electrodes.....1963.. 1958..	236 146	121 122
3613-	Switchgear and switchboard apparatus <sup>3</sup> .....1963.. 1958..	125 109	112 113	36232	Arc welding electrodes, metal.....1963.. 1958..	160 126	128 128
36132	Circuit breakers.....1963.. 1958..	125 108	106 118	36233	Resistance welders, components accessories, and electrodes.....1963.. 1958..	88 68	153 137
36133	Low voltage panelboards and dis- tribution boards and other switch- ing and interrupting devices 750 volt and under.....1963.. 1958..	155 114	121 121	3624-	Carbon and graphite products.....1963.. 1958..	( <sup>1</sup> ) ( <sup>1</sup> )	( <sup>1</sup> ) ( <sup>1</sup> )
36134	Fuses and fuse equipment under 2300 volts (except power distribu- tion cutouts).....1963.. 1958..	126 102	129 112	3629-	Electrical industrial apparatus, n.e.c.....1963.. 1958..	( <sup>1</sup> ) ( <sup>1</sup> )	( <sup>1</sup> ) ( <sup>1</sup> )
				36291	Capacitors for industrial use (except for electronic applica- tors).....1963.. 1958..	84 80	96 111

n.e.c. Not elsewhere classified.

<sup>1</sup>Not shown because comparable quantity or price data were not available for a significant portion of these products.<sup>2</sup>Adjusted to include product class 36123 (power regulators, boosters, and reactors, other transformers and transformer parts).<sup>3</sup>Adjusted to include product class 36131 (switchgear including power switchgear assemblies and other switching and interrupting devices 2,300 volts and over).<sup>4</sup>Not shown pending further review of the data covering fractional horsepower motors (product class 36211).



TABLE 6C. **Product Classes—Value Shipped by All Manufacturing Establishments:**  
**1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3611-	Electrical measuring instruments.....	721,741	888,735	797,413	795,931	719,132	587,755	347,154	157,453
36111	Integrating instrument electrical.....	<sup>2</sup> 89,219	94,583	96,423	100,540	104,011	88,809	73,091	63,650
36112	Testing equipment for testing electrical, radio, and communication circuits and motors	<sup>2</sup> 427,248	<sup>2</sup> 466,071	<sup>2</sup> 414,442	426,358	403,086	341,883	190,023	54,805
36113	Other electrical measuring equipment.....	<sup>2</sup> 191,039	262,336	221,042	198,864	188,248	140,053	84,040	38,998
36110	Electrical measuring instruments, n.s.k.....	14,235	(65,745)	(65,506)	(70,169)	(23,787)	17,010	-	-
3612-	Transformers.....	692,204	670,078	690,018	724,857	706,829	638,307	628,917	324,078
36121	Specialty transformers and fluorescent ballasts, except parts.....	163,008	203,528	189,682	177,046	172,441	130,023	109,554	80,672
36122	Power and distribution transformers, except parts.....	434,476	388,927	417,685	449,925	449,479	421,727	441,089	205,943
36123	Power regulators, boosters, and reactors, other transformers, and transformers parts.	90,282	68,885	74,666	92,366	90,141	80,982	78,274	37,463
36120	Transformers, n.s.k.....	4,438	(8,738)	(7,985)	(5,520)	(S)	5,576	-	-
3613-	Switchgear and switchboards.....	940,126	932,948	869,818	898,758	917,104	891,371	(NA)	(NA)
36131	Switchgear, including power switchgear assemblies and other switching and inter- rupting devices, 2,300 volts and over.....	<sup>3</sup> 406,628	<sup>3</sup> 397,765	<sup>3</sup> 364,076	377,448	402,163	419,932	(NA)	(NA)
36132	Circuit breakers.....	<sup>3</sup> 210,353	<sup>3</sup> 201,391	<sup>3</sup> 195,446	192,183	190,805	200,990	(NA)	(NA)
36133	Low voltage panel-boards and distribution boards and switching and interrupting devices 750 volts and under.....	<sup>3</sup> 267,987	<sup>3</sup> 253,789	<sup>3</sup> 240,897	244,517	243,840	224,223	(NA)	(NA)
36134	Fuses and fuse equipment under 2,300 volts (except power distribution cut outs).....	<sup>3</sup> 38,877	<sup>3</sup> 40,102	<sup>3</sup> 37,180	52,446	52,649	30,675	(NA)	(NA)
36130	Switchgear and switchboards, n.s.k.....	16,281	(39,901)	(32,219)	(32,164)	(27,647)	15,551	(NA)	(NA)
3621-	Motors and generators.....	1,520,203	1,529,561	1,443,815	1,508,325	1,423,468	1,291,390	1,338,459	753,776
36211	Fractional horsepower motors.....	<sup>4</sup> 538,438	<sup>4</sup> 544,394	<sup>4</sup> 501,834	<sup>4</sup> 502,034	551,091	435,820	422,695	310,823
36212	Integral horsepower motors and generators, except land transportation.....	<sup>4</sup> 363,497	<sup>4</sup> 371,224	<sup>4</sup> 363,784	<sup>4</sup> 397,088	435,454	430,458	410,620	258,705
36213	Land transportation motors, generators, and control equipment and parts.....	<sup>4</sup> 89,468	<sup>4</sup> 79,641	<sup>4</sup> 57,946	<sup>4</sup> 71,107	66,439	52,367	81,403	69,532
36214	Prime mover generator sets, except steam or hydraulic turbine.....	<sup>4</sup> 102,694	<sup>4</sup> 86,153	<sup>4</sup> 84,943	<sup>4</sup> 82,797	71,656	73,865	96,335	(NA)
36215	Motor generator sets and other rotating equipment.....	<sup>4</sup> 239,111	<sup>4</sup> 225,152	<sup>4</sup> 214,780	<sup>4</sup> 226,878	151,559	164,057	238,580	35,979
36216	Parts and supplies for motors, generators, and motor generator sets, except land transportation.....	127,593	170,002	161,225	166,743	147,269	108,881	88,826	78,737
36210	Motors and generators, n.s.k.....	9,402	(S)	(S)	(S)	(S)	25,942	(NA)	(NA)
36220	General industry power circuit devices and controls.....	<sup>3</sup> 594,913	<sup>2</sup> 577,573	<sup>2</sup> 543,352	567,165	516,220	447,297	333,858	171,232
3623-	Electric welding apparatus.....	324,895	285,873	252,545	275,680	279,131	233,235	160,025	105,971
36231	Arc welding machines, components, and accessories, except electrodes.....	104,508	93,798	68,924	78,022	76,903	65,797	36,694	32,110
36232	Arc welding electrodes, metal.....	148,328	143,517	132,079	133,055	144,036	116,438	72,255	43,987
36233	Resistance welders, components, accessories and electrodes.....	68,300	43,324	46,944	54,782	51,303	47,760	51,076	29,874
36230	Electric welding apparatus, n.s.k.....	3,759	5,234	4,598	9,821	6,889	3,240	-	-
36240	Carbon and graphite products.....	217,817	193,837	184,162	187,098	194,552	156,818	114,519	63,350
3629-	Electric industrial goods, n.e.c.....	250,474	315,220	295,298	290,011	271,904	213,073	171,863	86,013
36291	Capacitors for industrial use (except for electronic applications).....	51,430	80,219	74,172	73,888	73,620	57,122	64,161	34,026
36292	Rectifying apparatus.....	86,898	79,175	81,996	88,611	86,909	73,072	59,343	20,501
36293	Other electrical equipment for industrial use.....	103,681	143,453	125,344	112,784	104,648	77,064	48,357	31,486
36290	Electrical industrial goods, n.e.c., n.s.k..	8,465	(12,393)	(13,786)	(14,728)	(6,727)	5,815	-	-

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Source: Current Industrial Reports Series M38B, Selected Instruments and Related Products.

<sup>3</sup>Source: Current Industrial Reports Series M36A, Switchgear, Switchboard Apparatus, Relays, and Industrial Controls.

<sup>4</sup>Source: Current Industrial Reports Series M36H, Motors and Generators.

**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
INTEGRATING INSTRUMENTS, ELECTRICAL (36111)			SPECIALTY TRANSFORMERS AND FLUORESCENT BALLASTS, EXCEPT PARTS (36121)--Con.			SWITCHGEAR, INCLUDING POWER SWITCHGEAR ASSEMBLIES AND OTHER SWITCHING AND INTERRUPTING DEVICES, 2,300 VOLTS AND OVER (36131)--Con.		
United States, total....	93,250	88,809	East North Central.....	112,540	( <sup>2</sup> )	South Atlantic.....	19,468	
Northeast.....	35,231	34,148	Ohio.....	7,144	6,903	East South Central.....	16,328	
North Central and South.....	53,919		Illinois.....	82,248	67,936	Kentucky.....	15,175	
Pacific.....	4,100	54,661	Michigan.....	1,756	( <sup>2</sup> )	West South Central.....	5,907	
TEST EQUIPMENT FOR TESTING ELECTRICAL, RADIO AND COMMUNICATION CIRCUITS, AND MOTORS (36112)			West North Central.....	1,379	( <sup>2</sup> )	West.....	27,553	28,811
United States, total....	443,407	341,883	Missouri.....	1,379	( <sup>2</sup> )	California.....	25,076	25,995
New England.....	26,377	21,067	South.....	5,202				
Massachusetts.....	14,337	15,423	West.....	3,938	9,182			
Middle Atlantic.....	101,890	114,236	POWER AND DISTRIBUTION TRANSFORMERS, EXCEPT PARTS (36122)			CIRCUIT BREAKERS (36132)		
New York.....	39,745	45,930	United States, total....	434,476	421,726	United States, total....	208,882	200,990
New Jersey.....	52,228	54,520	Northeast.....	192,647	235,788	New England.....	26,924	24,113
Pennsylvania.....	9,917	13,786	New York.....	3,159	( <sup>2</sup> )	Middle Atlantic.....	126,628	126,100
East North Central.....	68,301	( <sup>2</sup> )	New Jersey.....	2,577	2,213	Pennsylvania.....	100,750	100,483
Illinois.....	38,135	21,724	North Central.....	99,550	90,086	North Central.....	39,790	29,577
Michigan.....	11,077	8,009	Illinois.....	1,756	( <sup>2</sup> )	Indiana.....	4,091	( <sup>2</sup> )
Ohio.....	13,679	( <sup>2</sup> )	Wisconsin.....	14,259	16,495	Illinois.....	3,916	( <sup>2</sup> )
West North Central.....	6,421	( <sup>2</sup> )	South.....	107,007		South.....	3,358	
South.....	26,275	8,983	Texas.....	4,185	95,852	West.....	12,182	21,200
Maryland.....	4,685	( <sup>2</sup> )	West.....	35,272		California.....	10,401	17,754
Florida.....	5,805	( <sup>2</sup> )	POWER REGULATORS, BOOSTERS, AND REACTORS, OTHER TRANSFORMERS, AND TRANSFORMER PARTS (36123)			LOW VOLTAGE PANELBOARDS AND DISTRIBUTION BOARDS AND SWITCHING AND INTERRUPTING DEVICES 750 VOLTS AND UNDER (36133)		
Texas.....	4,190	( <sup>2</sup> )	United States, total....	90,282	80,982	United States, total....	304,214	224,223
West.....	214,143	126,081	Northeast.....	55,336	59,149	New England.....	36,270	25,330
California.....	132,272	( <sup>2</sup> )	New Jersey.....	4,607	( <sup>2</sup> )	Massachusetts.....	9,482	6,393
OTHER ELECTRICAL MEASURING INSTRUMENTS (36113)			North Central.....	20,041	19,491	Middle Atlantic.....	78,121	54,061
United States, total....	204,728	140,053	Ohio.....	2,472	( <sup>2</sup> )	New York.....	25,412	25,060
New England.....	50,757	33,035	Illinois.....	10,221	3,459	New Jersey.....	19,656	18,728
New Hampshire.....	18,944	( <sup>2</sup> )	Wisconsin.....	4,255	( <sup>2</sup> )	Pennsylvania.....	33,053	10,273
Massachusetts.....	24,930	( <sup>2</sup> )	South.....	12,129		East North Central.....	74,646	71,691
Connecticut.....	6,883	2,723	West.....	2,776	2,342	Ohio.....	16,447	17,715
Middle Atlantic.....	44,884	35,445	SWITCHGEAR, INCLUDING POWER SWITCHGEAR ASSEMBLIES AND OTHER SWITCHING AND INTERRUPTING DEVICES, 2,300 VOLTS AND OVER (36131)			Illinois.....	24,306	19,707
New York.....	9,658	5,982	United States, total....	437,168	419,932	Michigan.....	14,529	( <sup>2</sup> )
New Jersey.....	18,852	23,305	New England.....	30,587	29,598	West North Central.....	6,118	
Pennsylvania.....	16,374	6,158	Connecticut.....	15,384	( <sup>2</sup> )	South Atlantic.....	19,438	
East North Central.....	44,860	23,544	Middle Atlantic.....	171,950	208,592	Georgia.....	12,897	7,762
Ohio.....	19,892	9,642	New York.....	17,567	12,103	East South Central.....	25,908	
Illinois.....	15,615	5,460	New Jersey.....	33,284	21,598	West South Central.....	13,717	
Wisconsin.....	2,506	4,755	Pennsylvania.....	121,099	174,891	Mountain.....	4,031	
West North Central.....	2,726	1,182	East North Central.....	149,778	120,179	Pacific.....	45,965	32,849
South.....	8,439		Ohio.....	25,105	19,604	California.....	40,542	26,803
Texas.....	4,620	46,847	Illinois.....	74,485	57,985	FUSES AND FUSE EQUIPMENT, UNDER 2,300 VOLTS (EXCEPT POWER DISTRIBUTION CUTOUPS) (36134)		
Mountain.....	8,310		Wisconsin.....	29,473	21,442	United States, total....		41,935
Pacific.....	44,752		West North Central.....	15,597	10,455	New England.....		5,100
SPECIALTY TRANSFORMERS AND FLUORESCENT BALLASTS, EXCEPT PARTS (36121)			Missouri.....	7,738	7,081	Middle Atlantic.....		4,824
United States, total....	163,008	130,023				South.....		2,072
New England.....	2,886	2,866				All other divisions.....		29,939
Middle Atlantic.....	37,063	25,277						
New York.....	7,675	4,771						

See footnotes at end of table.



TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments,  
by Geographic Areas: 1963 and 1958—Continued

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
FRACTIONAL HORSEPOWER MOTORS (36211)			MOTOR-GENERATOR SETS AND OTHER ROTATING EQUIPMENT (36215)—Continued			ARC WELDING MACHINES, COMPONENTS, AND ACCESSORIES, EXCEPT ELECTRODES (36231)		
United States, total.....	620,265	435,820	Middle Atlantic.....	71,436	84,068	United States, total...	104,508	65,797
New England.....	15,841	15,604	New York.....	22,532	15,700	Northeast.....	19,869	12,462
Massachusetts.....	6,988	7,595	New Jersey.....	6,226	27,555	New York.....	5,113	( <sup>2</sup> )
Middle Atlantic.....	124,154	66,937	Pennsylvania.....	42,678	40,813	East North Central.....	69,275	( <sup>2</sup> )
New York.....	102,449	55,240	East North Central.....	125,356	57,972	Illinois.....	1,062	( <sup>2</sup> )
New Jersey.....	15,239	9,189	Ohio.....	60,439	29,892	Michigan.....	10,742	6,122
Pennsylvania.....	6,466	2,508	Illinois.....	7,513	4,724	West North Central.....	8,123	( <sup>2</sup> )
East North Central.....	328,448	274,256	West North Central.....	5,875	18,757	Missouri.....	3,963	2,600
Ohio.....	114,985	136,126	Minnesota.....	2,911		South and West.....	7,241	4,435
Indiana.....	98,497	69,796	South and West.....	36,311	8,696	California.....	1,683	( <sup>2</sup> )
Illinois.....	49,017	36,269	California.....	10,949		ARC WELDING ELECTRODES, METAL (36232)		
Michigan.....	41,713	12,634	PARTS AND SUPPLIES FOR MOTORS, GENERATORS, AND MOTOR-GENERATOR SETS, EXCEPT LAND TRANSPORTATION (36216)			United States, total...	148,238	116,438
Wisconsin.....	24,236	19,431	United States, total....	127,593	108,881	Northeast.....	48,667	29,659
West North Central.....	31,485	37,076	New England.....	6,918	4,707	Pennsylvania.....	33,129	20,488
Missouri.....	28,266	33,939	Connecticut.....	4,156	3,624	North Central.....	72,360	65,634
South Atlantic.....	17,680	28,161	Middle Atlantic.....	49,006	40,033	Ohio.....	51,614	45,023
East South Central.....	37,426		New York.....	13,930	19,899	Michigan.....	1,513	( <sup>2</sup> )
West South Central.....	45,022	19,238	New Jersey.....	12,972	4,671	South and West.....	27,211	21,145
Arkansas.....	45,022		Pennsylvania.....	22,104	15,463	RESISTANCE WELDERS, COMPONENTS, ACCESSORIES AND ELECTRODES (36233)		
West.....	20,209	13,786	East North Central.....	51,684	51,619	United States, total...		68,300
INTEGRAL HORSEPOWER MOTORS AND GENERATORS, EXCEPT LAND TRANSPORTATION (36212)			Ohio.....	34,161	31,281	Northeast.....		8,673
United States, total.....	380,244	430,458	Indiana.....	4,868	( <sup>2</sup> )	North Central.....		57,490
Northeast.....	173,318	217,089	Illinois.....	2,222	( <sup>2</sup> )	Ohio.....		10,998
New Jersey.....	8,991	( <sup>2</sup> )	Michigan.....	4,779	3,499	Michigan.....		29,893
East North Central.....	141,284	145,742	Wisconsin.....	5,654	3,416	Wisconsin.....		1,762
Ohio.....	73,533	82,720	West North Central.....	4,822	4,730	South and West.....		2,137
Michigan.....	4,742	( <sup>2</sup> )	South.....	7,909	( <sup>2</sup> )	CARBON AND GRAPHITE PRODUCTS (36240)		
Wisconsin.....	45,092	32,859	West.....	7,254	( <sup>2</sup> )	United States, total...		217,817
West North Central.....	32,600	( <sup>2</sup> )	California.....	6,822	3,375	New England.....		1,469
Missouri.....	17,678	25,897	GENERAL INDUSTRY POWER CIRCUIT DEVICES AND CONTROLS (36220)			Middle Atlantic.....		87,906
South.....	6,000	( <sup>2</sup> )	United States, total....	633,274	447,297	New York.....		53,144
West.....	27,042	( <sup>2</sup> )	New England.....	46,518	28,789	North Central and South....		125,813
PRIME MOVER GENERATOR SETS, EXCEPT STEAM OR HYDRAULIC TURBINE (36214)			Connecticut.....	26,159	18,545	Illinois.....		3,486
United States, total.....		104,633	Middle Atlantic.....	107,852	78,892	Pacific.....		2,629
Northeast.....		18,926	New York.....	48,740	42,587	California.....		2,629
East North Central.....		57,658	New Jersey.....	25,810	7,333			
Ohio.....		5,879	Pennsylvania.....	33,302	28,972			
Illinois.....		24,838	East North Central.....	328,562	237,362			
Michigan.....		2,263	Ohio.....	54,294	46,039			
Wisconsin.....		24,678	Indiana.....	9,109	7,260			
West North Central.....		18,949	Illinois.....	84,125	55,807			
South.....		5,270	Michigan.....	23,622	9,068			
Pacific.....		3,830	Wisconsin.....	157,412	119,188			
California.....		3,830	West North Central.....	11,581	9,554			
MOTOR-GENERATOR SETS AND OTHER ROTATING EQUIPMENT (36215)			Minnesota.....	7,960	6,801			
United States, total.....	246,226	164,057	South.....	96,765	66,412			
New England.....	7,248	3,260	Texas.....	7,631	( <sup>2</sup> )			
See footnotes at end of table.			Mountain.....	2,364	1,116			
			Pacific.....	39,632	25,172			
			Washington.....	3,685	3,188			
			California.....	35,090	21,691			

TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>2</sup>	1958
RECTIFYING APPARATUS (36292)			RECTIFYING APPARATUS (36292)--Continued			OTHER ELECTRICAL EQUIPMENT FOR INDUSTRIAL USE (36293)--Continued		
United States, total.....	86,898	73,072	South.....	4,742	11,589	Middle Atlantic.....	30,073	17,860
New England.....	1,858	( <sup>2</sup> )	West.....	8,089		New York.....	3,010	3,748
Middle Atlantic.....	35,138	( <sup>2</sup> )	OTHER ELECTRICAL EQUIPMENT FOR INDUSTRIAL USE (36293)			New Jersey.....	6,368	3,800
Pennsylvania.....	24,963	13,247				Pennsylvania.....	20,695	10,312
East North Central.....	30,878	27,262				East North Central.....	51,102	( <sup>2</sup> )
Ohio.....	15,711	11,507				Ohio.....	17,094	12,341
Illinois.....	10,646	8,288				Indiana.....	12,186	6,116
United States, total....			United States, total....	103,681	77,064	Illinois.....	13,995	11,669
West North Central.....	6,193	7,117	New England.....	7,123	9,723	Michigan.....	4,376	( <sup>2</sup> )
Missouri.....	1,736	1,654	Connecticut.....	3,752	4,060	Wisconsin.....	3,451	( <sup>2</sup> )
						West North Central.....	2,613	( <sup>2</sup> )
						South.....	2,038	11,818
						West.....	10,732	

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million reported.

<sup>1</sup>For the specified product classes, shipments of \$1 million or more were reported for the States listed, but the exact figures are withheld to avoid disclosure of individual company figures: 36111, New Hampshire, New York, Ohio, Indiana, Illinois, North Carolina, South Carolina, Texas, Oregon, and California; 36112, New Hampshire, Connecticut, Indiana, Wisconsin, Iowa, Missouri, Georgia, Mississippi, Oklahoma, Colorado, Washington, and Oregon; 36113, Indiana, Michigan, Minnesota, Oklahoma, Colorado, and California; 36121, Massachusetts, New Jersey, Pennsylvania, Indiana, Wisconsin, North Carolina, Mississippi, Oregon, and California; 36122, Massachusetts, Pennsylvania, Ohio, Indiana, Michigan, Missouri, Virginia, North Carolina, Georgia, Florida, Alabama, Mississippi, Arkansas, Oregon, and California; 36123, Massachusetts, Connecticut, Pennsylvania, Indiana, Missouri, West Virginia, Georgia, Alabama, and California; 36131, Massachusetts, Indiana, Michigan, Minnesota, Iowa, North Carolina, Georgia, Arkansas, Texas, and Oregon; 36132, Massachusetts, Connecticut, New York, New Jersey, Ohio, Michigan, Iowa, and Maryland; 36133, New Hampshire, Connecticut, Indiana, Wisconsin, Missouri, North Carolina, Kentucky, Texas, Colorado, Utah, and Washington; 36134, Massachusetts, Rhode Island, New York, Illinois, Minnesota, Missouri, and Arkansas; 36211, New Hampshire, Connecticut, Minnesota, Maryland, Virginia, North Carolina, South Carolina, Kentucky, Tennessee, Colorado, and California; 36212, Connecticut, New York, Pennsylvania, Indiana, Illinois, Minnesota, Virginia, Georgia, Arkansas, and California; 36214, Connecticut, New York, New Jersey, Pennsylvania, Minnesota, Iowa, Missouri, Virginia, South Carolina, and Louisiana; 36215, Connecticut, Indiana, Michigan, Wisconsin, Missouri, North Carolina, Kentucky, and Colorado; 36216, Massachusetts, Minnesota, Kentucky, and Oklahoma; 36220, Massachusetts, Missouri, Maryland, Virginia, North Carolina, Georgia, Kentucky, Oklahoma, and Colorado; 36231, Connecticut, New Jersey, Pennsylvania, Ohio, Wisconsin, Minnesota, Kansas, Texas, and Colorado; 36232, New York, New Jersey, Indiana, Wisconsin, Minnesota, Maryland, Alabama, and California; 36233, New York, Indiana, Illinois, and California; 36240, Massachusetts, New Jersey, Pennsylvania, Ohio, Michigan, Wisconsin, West Virginia, North Carolina, and Tennessee; 36291, Massachusetts, New York, New Jersey, Ohio, Indiana, Illinois, Wisconsin, and South Carolina; 36292, Massachusetts, New York, New Jersey, Indiana, Minnesota, North Carolina, Texas, and California; 36293, Maine, Massachusetts, Minnesota, and Missouri.

<sup>2</sup>Shipments of \$1 million or more were reported, but exact figures are withheld to avoid disclosure of individual company figures.



TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3611.—ELECTRIC MEASURING INSTRUMENTS			
	Materials, parts, containers, and supplies, total.....		(X)	217,126	(X)	208,678
	Mill shapes (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	919	540	612	189
331012	Sheet and strip.....	..do.....	8,759	1,631	6,775	1,520
331013	Plates.....	..do.....	90	27	238	48
331015	Structural shapes.....	..do.....	227	354	664	181
331017	Wire and wire products.....	..do.....			326	128
331019	All other carbon steel mill shapes and forms.....	..do.....			211	42
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	42	71	1,180	511
331029	All other alloy steel mill shapes and forms.....	..do.....	3,745	1,651	2,709	980
331031	Stainless steel.....	..do.....	563	763	692	983
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction only).....	1,000 lbs.....	1,338	1,065	1,880	1,124
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	6,407	3,257	3,890	3,460
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	1,300	886	4,378	2,556
335123	Plate, sheet, and strip (including military cups and discs).....	..do.....	1,512	1,263		
335127	Pipe and tube.....	..do.....				
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	..do.....	4,397	2,409	5,787	3,162
335205	Extruded shapes (including extruded rod, bar, pipe tube, etc.)...	..do.....	914	787	3,409	1,674
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing).....	..do.....	2,075	807		
	Castings (rough and semifinished):					
332300	Steel.....	Short tons.....	210	699	1,126	1,007
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	1,797	1,204	2,346	1,553
336200	Copper and copper-base alloy.....	..do.....	112	54	572	403
	Fractional horsepower electric motors (under 1 hp.):					
362110	Timing motors, synchronous and subsynchronous.....	1,000.....	283	1,764	34	413
362115	Other fractional horsepower electric motors (excluding timing motors).....	..do.....	106	832	20	533
	Bearings:					
356218	Ball.....	.....	(X)	862	(X)	410
356228	Roller.....	.....	(X)			
367010	Electron tubes, except X-ray.....	1,000 units.....	8,798	10,190	5,090	7,640
367408	Solid state semiconductors.....	..do.....	12,833	9,386	1,276	2,367
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	140,689	(X)	147,319
973000	Materials, containers, supplies, n.s.k.....	.....	(X)	35,935	(X)	30,475
			INDUSTRY 3612.—TRANSFORMERS			
	Materials, components, parts, containers, and supplies consumed, total.....		(X)	324,538	(X)	246,093
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	8,021	1,388	7,060	1,253
331012	Sheet and strip.....	..do.....	164,036	39,325	65,818	13,173
331013	Plates.....	..do.....	48,301	6,527	52,458	4,310
331015	Structural shapes.....	..do.....	11,593	1,735	9,549	2,228
331019	All other carbon steel mill shapes and forms.....	..do.....	9,907	4,078	7,537	3,212
331020	Alloy steel (except stainless).....	..do.....	107,615	42,690	111,913	44,449
331031	Stainless steel mill shapes and forms.....	..do.....	880	822	209	446
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction only).....	1,000 lbs.....	62,343	32,081	45,002	22,185
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	81,912	34,886	32,111	21,423
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	15,896	6,024	21,478	7,728
335123	Plate, sheet and strip (including military cups and discs).....	..do.....	30,151	2,045		
335127	Pipe and tube.....	..do.....	978	655		
	Aluminum and aluminum-base alloy:					
335205	Extruded shapes, (including extruded rod, bar, pipe tube, etc.)...	..do.....	1,585	740	(NA)	(NA)
335207	Sheet plate and foil.....	..do.....	5,199	2,424	(NA)	(NA)
335209	All other aluminum mill shapes and forms.....	..do.....				
970099	All other materials and components, parts, containers and supplies consumed.....	.....	(X)	143,716	(X)	119,454
976000	Materials, components, parts, containers and supplies consumed, n.s.k.....	.....	(X)	5,402	(X)	6,232

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3613.—SWITCHGEAR AND SWITCHBOARDS			
	Materials, parts, containers and supplies, total.....		(X)	400,444	(X)	337,713
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	20,840	3,538	18,428	3,098
331012	Sheet and strip.....	do.....	200,482	33,846	97,174	15,904
331013	Plates.....	do.....	17,045	2,149	18,701	3,032
331015	Structural shapes.....	do.....	10,406	2,222	14,894	2,791
331019	All other carbon steel mill shapes and forms.....	do.....	6,365	1,843	3,794	1,328
331020	Alloy steel (except stainless).....	do.....	2,666	1,364	14,511	3,501
331031	Stainless steel.....	do.....	637	695	482	664
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction only).....	1,000 lbs.....	3,023	1,999	5,431	3,006
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	5,153	3,665	5,961	4,771
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	35,584	18,838	41,740	22,457
335123	Plate, sheet and strip (including military cups and discs).....	do.....	11,471	6,657		
335127	Pipe and tube.....	do.....	2,423	1,341		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	do.....	2,690	1,346	6,992	2,301
335205	Extruded shapes (including extruded rod, bar, pipe tube, etc.)..	do.....	5,644	3,019	3,196	2,348
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing).....	do.....	2,030	982		
	Castings (rough and semifinished):					
332300	Steel.....	Short tons.....	1,270	1,329	3,642	3,502
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	3,212	2,747	2,114	1,723
336200	Copper and copper-base alloy.....	do.....	10,297	6,863	8,250	5,721
	Industrial electrical control equipment (received for incorporation only into other industrial electrical control equipment shipped, as such, by this plant):					
362200	Purchased from other companies.....		(X)	239,991	(X)	231,619
362209	Received from other plants of your company.....		(X)	247,310	(X)	240,997
282130	Thermoplastic resins, including modified resins.....	1,000 lbs.....	3,655	1,143	(NA)	(NA)
282140	Thermosetting resins.....	do.....	12,314	4,478	(NA)	(NA)
970099	All other materials and components, parts, containers and supplies consumed.....		(X)	177,255	(X)	169,620
976000	Materials, containers, supplies, n.s.k.....		(X)	135,824	(X)	119,330
			INDUSTRY 3621.—MOTORS AND GENERATORS			
	Materials, parts, supplies, and containers, total.....		(X)	662,068	(X)	500,425
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	99,561	21,648	43,155	9,108
331012	Sheet and strip.....	do.....	546,804	95,628	284,490	58,757
331013	Plates.....	do.....	55,441	8,545	46,554	7,846
331017	Wire and wire products.....	do.....	13,905	3,477	3,110	1,070
331019	All other carbon steel mill shapes and forms.....	do.....	22,251	5,484	22,299	6,697
331020	Alloy steel (except stainless).....	do.....	12,854	6,732	58,382	13,026
331031	Stainless steel.....	do.....	4,218	4,456	1,305	2,264
	Copper and copper-base alloy:					
335728	Bare wire.....	1,000 lbs.....	25,307	15,475	59,817	26,419
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	113,610	65,586	66,246	42,386
335102	Rod, bar, and mechanical wire.....	1,000 lbs.....	70,325	28,201	27,972	11,611
335123	Plate, sheet and strip.....	do.....	5,809	3,212		
335127	Pipe and tube.....	do.....	452	438		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	do.....	1,491	964	2,519	1,187
335205	Extruded shapes.....	do.....	4,251	1,904	22,102	13,738
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder welded tubing).....	do.....	12,674	3,630		
	Primary metals:					
333122	Copper and copper-base alloy refinery shapes.....	Short tons.....	644	624	576	416
333401	Aluminum and aluminum-base alloy refinery shapes.....	do.....	13,891	5,946	(NA)	(NA)

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
	Materials, parts, containers and supplies—Continued		INDUSTRY 3621.—MOTORS AND GENERATORS—Continued			
	Castings (rough and semifinished):					
332011	Iron (gray and malleable).....	Short tons.....	92,032	29,470	63,707	21,535
332300	Steel.....	..do.....	4,041	3,086	4,916	3,443
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	20,941	14,384	11,225	7,681
336200	Copper and copper-base alloy.....	..do.....	2,428	2,167	1,184	980
339100	Iron and steel forgings.....	Short tons.....	6,915	3,985	3,038	2,883
	Engines:					
351901	Diesel and semidiesel .....	Number.....	2,744	5,111	819	2,432
351901	Gasoline and other carburetor.....	..do.....	7,359	2,915	12,755	4,207
362120	Integral horsepower electric motors and generators.....	Thousands.....	10	6,101	11	10,467
	Bearings:					
356218	Ball.....	.....	(X)	19,029	(X)	12,157
356228	Roller.....	.....	(X)	1,825		
367010	Electron tubes, except X-ray.....	1,000 units.....	204	1,635	(NA)	(NA)
367408	Solid state semiconductors.....	..do.....	1,138	2,081	(NA)	(NA)
970099	All other materials, components, parts, containers, and supplies consumed.....	.....	(X)	264,684	(X)	230,850
976000	Materials, parts, supplies, and containers, n.s.k.....	.....	(X)	133,645	(X)	9,265
			INDUSTRY 3622.—INDUSTRIAL CONTROLS			
	Materials, parts, containers, and supplies, total.....	.....	(X)	195,509	(X)	113,401
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	8,743	1,810	2,706	618
331012	Sheet and strip.....	..do.....	29,788	5,613	18,756	3,446
331013	Plates.....	..do.....	1,055	210	4,177	472
331015	Structural shapes.....	..do.....	2,543	608	490	90
331019	All other carbon steel mill shapes and forms.....	..do.....	3,092	742	358	117
331020	Alloy steel (except stainless).....	..do.....	1,662	488	2,882	1,281
331031	Stainless steel.....	..do.....	1,339	1,905	785	887
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction only).....	1,000 lbs.....	3,195	1,510	2,133	1,248
335790	Insulated wire and cable.....	1,000 lbs.....	5,367	3,761	3,102	2,169
	(copper content).....	.....				
335102	Rod, bar, and mechanical wire.....	1,000 lbs.....	4,099	2,388	7,780	4,491
335123	Plate, sheet and strip.....	..do.....	4,007	2,547		
335127	Pipe and tube.....	..do.....	385	238		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	..do.....	618	357	304	121
335205	Extruded shapes (including extruded rod, bar, pipe tube, etc.).....	..do.....	398	224	191	122
335209	All other aluminum mill shapes and forms (wire, rolled rod, and bar).....	..do.....	381	193		
	Castings (rough and semifinished):					
332300	Steel.....	Short tons.....	3,108	2,189	3,650	1,450
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	2,587	1,122	1,808	1,116
336200	Copper and copper-base alloy.....	..do.....	958	837	377	262
	Industrial electrical control equipment:					
362200	Purchased from other companies.....	.....	(X)	230,684	(X)	213,634
362209	Received from other plants of your company.....	.....	(X)	216,749	(X)	27,756
282130	Thermoplastic resins.....	1,000 lbs.....	487	281	(NA)	(NA)
282140	Thermosetting resins.....	..do.....	8,720	1,827	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	92,278	(X)	66,352
976000	Materials, containers, supplies, n.s.k.....	.....	(X)	126,948	(X)	17,769
			INDUSTRY 3623.—ELECTRIC WELDING APPARATUS			
	Materials, parts, containers, and supplies, total.....	.....	(X)	150,549	(X)	122,036
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	9,998	2,403	8,987	2,008
331012	Sheet and strip.....	..do.....	22,756	5,036	17,012	3,539
331017	Wire and wire products.....	..do.....	236,169	36,183	185,753	35,706
331015	Structural shapes.....	..do.....	2,203	642	18,914	2,509
331019	All other carbon steel mill shapes and forms.....	..do.....	13,948	2,757		
331020	Alloy steel (except stainless).....	..do.....	6,175	4,569	5,419	1,855
331031	Stainless steel.....	..do.....	8,830	12,718	3,004	6,009

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958		
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	
			INDUSTRY 3623.—ELECTRIC WELDING APPARATUS—Continued				
	Mill shapes and forms (except castings)—Continued						
	Copper and copper-base alloy:						
335728	Bare wire.....	1,000 lbs.....	1,385	847	1,764	1,322	
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	6,375	4,245	3,306	2,623	
335102	Rod, bar, and mechanical wire.....	1,000 lbs.....	4,866	3,666	3,853	3,489	
335123	Plate, sheet and strip.....	..do.....	676	478			
335127	Pipe and tube.....	..do.....	320	220			
336200	Copper and copper-base alloy castings.....	..do.....	2,220	2,145	2,779	2,204	
970099	All other materials, components, parts, containers and supplies consumed.....		(X)	64,219	(X)	57,288	
976000	Materials, containers, supplies, n.s.k.....		(X)	110,421	(X)	3,484	
			INDUSTRY 3624.—CARBON AND GRAPHITE PRODUCTS				
	Materials, parts, containers, and supplies consumed, total <sup>3</sup> .....		(X)	71,382	(NA)	(NA)	
	Mill shapes and forms (except castings):						
	Copper and copper-base alloy:						
335728	Bare wire (for electrical conduction only).....	1,000 lbs.....	659	619	(NA)	(NA)	
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	33	17	(NA)	(NA)	
335102	Rod, bar, and mechanical wire.....	1,000 lbs.....	(D)	(D)	(NA)	(NA)	
335123	Plate, sheet and strip.....	..do.....	334	221	(NA)	(NA)	
335127	Pipe and tube.....	..do.....	(D)	(D)	(NA)	(NA)	
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	67,457	(NA)	(NA)	
976000	Materials, parts, containers, and supplies consumed, n.s.k.....		(X)	3,068	(NA)	(NA)	
			INDUSTRY 3629.—ELECTRIC INDUSTRIAL GOODS, N.E.C.				
	Materials, parts, containers, and supplies, total.....		(X)	92,996	(X)	86,496	
	Mill shapes and forms (except castings):						
	Copper and copper-base alloy:						
335728	Bare wire.....	1,000 lbs.....	5,636	3,262	6,652	3,641	
335790	Insulated wire and cable.....	1,000 lbs. (copper content).	13,082	8,245	6,575	5,433	
335102	Rod, bar, and mechanical wire.....	1,000 lbs.....	3,694	1,387	3,370	2,229	
335123	Plate, sheet and strip.....	..do.....	2,100	396			
335127	Pipe and tube.....	..do.....	492	322			
	Aluminum and aluminum-base alloy:						
335202	Sheet, plate and foil.....	..do.....	5,463	2,338	}	(NA)	
335205	Extruded shapes (including extruded rod, bar, pipe tube, etc.)	..do.....	1,243	505			
335209	All other aluminum mill shapes and forms (wire, rolled rod, and bar, etc.).....	..do.....					
367408	Solid state semiconductors.....	1,000 units.....	23,089	2,109	(NA)	(NA)	
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	60,137	(X)	63,421	
976000	Materials, containers, supplies, n.s.k.....		(X)	14,295	(X)	11,772	

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Represents (a) total cost of materials for small establishments reporting on "Short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

<sup>2</sup>An indeterminate amount of materials other than industrial electrical control equipment are included.

<sup>3</sup>Comparable data for 1958 not available.



**TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962**

Item	Electric measuring instruments (SIC 3611)	Transformers (SIC 3612)	Switchgear and switchboards (SIC 3613)	Motors and generators (SIC 3621)	Industrial controls (SIC 3622)	Electric welding apparatus (SIC 3623)	Carbon and graphite products (SIC 3624)	Electric industrial goods, n.e.c. (SIC 3629)
Total cost of purchased fuels and electric energy.....\$1,000..	5,453	8,224	6,676	15,475	4,243	2,323	9,731	2,755
Total cost of purchased fuels.....do....	1,506	2,265	2,204	5,605	1,285	963	3,452	760
Bituminous coal, lignite, and anthracite:								
Quantity.....1,000 short tons..	(S)	118	19	131	(S)	11	49	(S)
Cost.....\$1,000..	(S)	882	147	997	(S)	89	343	(S)
Coke and breeze:								
Quantity.....1,000 short tons..	(S)	-	(S)	(S)	-	-	(S)	-
Cost.....\$1,000..	(S)	-	(S)	(S)	-	-	(S)	-
Fuel oil (distillate and residual):								
Quantity.....1,000 barrels of 42 gallons..	168	95	247	181	93	32	(S)	80
Cost.....\$1,000..	601	305	835	669	388	128	(S)	290
Gas (natural, manufactured, still, blast furnace, and coke oven):								
Quantity.....million cu.ft..	947	1,826	1,322	3,609	1,117	1,008	4,972	464
Cost.....\$1,000..	614	962	916	2,156	706	642	2,595	264
Other fuels.....do....	232	116	298	1,782	121	104	88	134
Electric energy:								
Purchased:								
Quantity.....million kw.-hrs..	288	597	319	832	216	88	1,035	156
Cost.....\$1,000..	3,947	5,959	4,472	9,870	2,958	1,360	6,279	1,995
Generated less sold.....million kw.-hrs..	-	(S)	(S)	45	-	(S)	-	-
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	80	428	134	502	59	51	146	97
Prime movers, total.....do....	1	96	12	44	2	2	22	1
Driving generators.....do....	(Z)	92	7	23	1	1	7	1
Not driving generators.....do....	1	4	5	21	1	1	15	(Z)
Electric motors, total.....do....	78	336	130	497	57	49	124	96
Driven by purchased energy.....do....	78	331	123	458	57	49	124	96
Driven by energy generated at establishment.....do....	-	4	8	39	-	(Z)	-	-
Aggregate horsepower per 100 production workers.....	188	1,741	309	742	270	783	2,013	621

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3611-	ELECTRIC MEASURING INSTRUMENTS										
	Entire industry.....	560	44,715	273,645	30,109	59,905	149,616	505,309	245,417	749,220	19,207
	Establishments with—										
	90% or more specialization..	448	23,914	134,181	16,705	32,715	75,340	255,377	128,448	378,424	10,060
	75-89% specialization.....	32	7,758	55,067	5,177	11,000	31,287	107,717	45,060	152,740	3,018
36111	Integrating instruments, electrical (primary product class of estab.).	19	7,022	40,616	4,935	9,856	23,872	88,660	38,763	129,652	2,662
36112	Test equipment for testing electrical, radio and communication circuits, and motors (primary product class of estab.).	224	24,750	155,460	16,179	31,737	81,688	285,323	146,778	429,240	10,610
	Establishments with—										
	90% or more specialization....	157	12,413	76,789	8,280	15,718	40,364	139,705	70,064	202,936	6,308
	75-89% specialization.....	17	4,947	33,313	3,381	7,193	19,618	68,098	29,295	99,007	1,936
36113	Other electrical measuring instruments (primary product class of estab.).	141	11,611	70,889	7,966	16,242	39,448	120,815	54,222	173,990	4,202
	Establishments with—										
	90% or more specialization....	107	3,713	18,334	2,849	5,735	11,261	29,696	14,544	43,907	1,350
	75-89% specialization.....	16	3,597	24,101	2,555	5,420	14,044	48,587	20,949	68,035	1,310
3612-	TRANSFORMERS										
	Entire industry.....	177	33,365	209,514	23,640	46,873	129,628	381,514	337,001	722,896	13,161
	Establishments with—										
	90% or more specialization..	150	19,985	117,460	14,766	28,832	75,407	242,592	228,694	472,898	9,140
	75-89% specialization.....	11	9,297	66,673	6,155	12,352	39,689	92,610	75,770	167,680	2,727
36121	Speciality transformers and fluorescent ballasts, except parts (primary product class of estab.).	43	8,735	47,260	7,412	13,612	32,367	88,397	81,328	170,011	2,030
	Establishments with—										
	90% or more specialization....	30	4,688	23,473	4,451	7,927	17,449	47,974	46,610	95,527	1,086
36122	Power and distribution transformers, except parts (primary product class of estab.).	60	22,703	153,328	15,113	30,204	91,186	275,722	238,386	518,160	10,417
	Establishments with—										
	90% or more specialization....	35	6,652	39,821	4,674	9,373	25,204	105,767	97,329	202,375	4,370
	75-89% specialization.....	13	4,524	29,147	3,276	6,393	18,922	39,326	50,460	91,348	1,281
36123	Power regulators, boosters, and reactors, other transformers, and transformer parts (primary product class of estab.).	27	1,550	7,363	1,215	2,491	4,891	14,859	15,157	30,131	539
	Establishments with—										
	90% or more specialization....	18	349	1,667	297	625	1,287	2,805	2,665	5,497	143
3613-	SWITCHGEAR AND SWITCHBOARDS										
	Entire industry.....	400	54,045	338,860	38,091	76,910	204,942	647,838	452,209	1,093,743	18,180
	Establishments with—										
	90% or more specialization..	302	30,286	177,379	22,528	45,729	114,124	347,307	251,650	599,005	10,808
	75-89% specialization.....	40	13,582	94,095	8,614	17,493	51,884	163,329	109,808	266,131	4,199
36131	Switchgear, including power switchgear assemblies and other switching and interrupting devices, 2300 volts and over (primary product class of estab.).	101	26,047	170,498	17,903	36,101	101,067	310,097	195,320	501,523	7,211
	Establishments with—										
	90% or more specialization....	54	7,802	43,589	5,602	11,055	26,471	86,657	50,942	138,221	2,069
	75-89% specialization.....	16	3,289	19,420	2,309	4,695	11,622	33,502	23,687	57,352	708
36132	Circuit breakers (primary product class of estab.).	21	11,106	71,790	7,329	14,191	39,975	141,104	77,315	217,785	4,502
	Establishments with—										
	90% or more specialization....	13	3,911	24,025	2,784	5,609	14,535	51,749	31,136	82,235	1,199

See footnotes at end of table.



TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3613-	SWITCHGEAR AND SWITCHBOARDS—Continued										
36133	Low voltage panelboards and distribution boards and switching and interrupting devices, 750 volts and under (primary product class of estab.).....	142	13,245	78,313	9,727	19,401	49,875	167,475	156,551	322,294	5,847
	Establishments with—										
	90% or more specialization....	73	4,033	23,682	2,931	5,788	14,976	45,918	45,430	89,241	1,256
	75-89% specialization.....	21	3,237	17,487	2,499	4,817	12,053	43,677	31,201	74,971	745
36134	Fuses and fuse equipment, under 2300 volts (except power distribution cut-outs) (primary product class of estab.).....	10	2,698	13,450	2,381	5,483	10,517	20,509	15,226	35,673	380
3621-	MOTORS AND GENERATORS										
	Entire industry.....	384	94,170	583,225	68,693	140,174	378,790	993,207	715,189	1,709,818	35,804
	Establishments with—										
	90% or more specialization..	296	46,633	261,353	35,784	72,408	174,154	452,735	327,904	773,795	17,188
	75-89% specialization.....	24	13,763	97,558	9,581	20,026	61,451	170,822	133,634	306,422	7,817
36211	Fractional horsepower motors (primary product class of estab.)....	118	45,799	268,441	35,394	71,875	185,976	455,773	322,028	786,072	18,276
	Establishments with—										
	90% or more specialization....	76	18,294	90,470	15,225	30,432	66,779	177,708	128,927	305,862	6,268
	75-89% specialization.....	14	5,840	40,351	4,412	9,006	27,209	76,355	52,072	128,419	3,365
36212	Integral horsepower motors and generators, except land transportation (primary product class of estab.)..	55	26,502	186,869	17,413	35,563	110,755	312,505	232,759	545,473	8,797
	Establishments with—										
	90% or more specialization....	18	2,112	14,359	1,505	3,023	9,013	25,229	17,759	42,512	873
	75-89% specialization.....	9	3,140	19,376	2,145	4,351	12,043	29,374	15,479	44,783	860
36213	Land transportation motors, generators, and control equipment, and parts (primary product class of estab.).....	11	1,419	8,951	967	1,905	5,169	20,869	12,558	32,418	310
36214	Prime mover generator sets, except steam or hydraulic turbine (primary product class of estab.)....	16	2,663	15,244	1,796	3,507	8,660	28,697	32,526	59,382	1,544
	Establishments with—										
	90% or more specialization....	7	684	4,201	415	921	2,283	5,236	11,719	16,029	97
36215	Motor generator sets and other rotating equipment (primary product class of estab.).....	40	10,700	61,127	7,988	17,066	40,155	106,440	65,100	168,978	4,441
	Establishments with—										
	90% or more specialization....	24	6,216	33,906	4,945	10,817	23,460	65,583	35,685	98,617	2,751
	75-89% specialization.....	3	148	631	126	227	366	868	1,857	2,802	16
36216	Parts and supplies for motors, generators, and motor generator sets, except land transportation (primary product class of estab.)....	40	6,102	37,841	4,355	8,744	24,594	61,712	44,523	104,540	2,130
	Establishments with—										
	90% or more specialization....	30	1,538	8,435	1,299	2,591	6,479	13,455	11,276	24,431	408
	75-89% specialization.....	3	593	4,280	481	971	3,465	8,473	4,230	12,153	(D)
3622-	INDUSTRIAL CONTROLS										
	Entire industry.....	427	32,990	214,597	22,772	44,898	125,418	450,507	207,587	648,683	15,419
	Establishments with—										
	90% or more specialization..	354	16,457	110,681	10,439	21,113	54,683	219,469	122,421	337,340	5,037
	75-89% specialization.....	28	3,824	24,619	2,458	4,803	14,169	54,382	27,139	80,710	662
3623-	ELECTRIC WELDING APPARATUS										
	Entire industry.....	147	9,629	72,113	6,565	14,075	44,617	162,411	168,553	330,227	5,364
	Establishments with—										
	90% or more specialization..	122	6,912	45,958	4,690	10,003	27,985	109,290	122,994	332,354	3,226
	75-89% specialization.....	7	2,134	22,315	1,446	3,060	14,136	47,052	40,662	86,982	1,853

See footnotes at end of table.

**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued**

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3623-	ELECTRIC WELDING APPARATUS— Continued										
36231	Arc welding machines, components, and accessories, except electrodes (primary product class of estab.). Establishments with—	37	2,749	17,785	1,908	4,169	10,883	42,708	39,673	81,935	1,037
	90% or more specialization....	25	1,446	9,520	1,022	2,113	5,583	22,916	18,997	40,952	379
36232	Arc welding electrodes, metal (primary product class of estab.)....	28	3,525	31,054	2,423	5,005	19,749	76,493	98,587	175,033	2,884
36233	Resistance welders, components, accessories and electrodes (primary product class of estab.).....	48	3,171	22,089	2,110	4,633	13,310	40,911	28,383	68,955	1,183
	Establishments with—										
	90% or more specialization....	32	1,707	11,047	1,104	2,431	7,023	22,106	16,909	38,911	563
	75-89% specialization.....	7	783	6,099	523	1,081	3,388	10,560	5,554	15,797	540
3624-	CARBON AND GRAPHITE PRODUCTS										
	Entire industry.....	53	10,123	61,984	7,963	16,104	44,068	141,423	84,758	226,889	11,441
	Establishments with—										
	90% or more specialization..	43	8,181	49,314	6,451	13,005	35,777	120,385	72,931	194,006	9,956
3629-	ELECTRIC INDUSTRIAL GOODS, N.E.C.										
	Entire industry.....	231	14,041	72,988	10,897	21,043	47,677	141,633	100,132	238,325	4,003
	Establishments with—										
	90% or more specialization..	186	7,940	38,295	6,350	12,244	25,552	66,578	48,391	113,407	2,230
	75-89% specialization.....	11	1,898	11,081	1,294	2,556	6,315	21,222	14,056	35,902	604
36292	Rectifying apparatus (primary product class of estab.).....	45	3,705	19,893	2,873	5,643	12,769	37,810	26,277	62,097	719
	Establishments with—										
	90% or more specialization....	33	2,427	12,755	1,884	3,714	8,420	22,310	16,203	37,383	521
36293	Other electrical equipment for industrial use (primary product class of estab.).....	96	7,230	36,145	5,739	11,168	24,367	68,352	47,118	114,169	2,228
	Establishments with—										
	90% or more specialization....	73	4,665	21,824	3,817	7,360	14,612	37,614	26,573	63,810	1,327
	75-89% specialization.....	7	277	1,197	171	372	657	1,822	1,069	2,913	117

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.



TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
INDUSTRY 3611.—ELECTRIC MEASURING INSTRUMENTS								
Nonferrous die casting.....	7	3	2	2	93	9	(D)	(D)
Electroplating and other plating.....	38	27	7	4	227	47	64	116
Heat treating of metals.....	24	19	5	-	78	28	50	-
Automatic screw machine department.....	28	17	7	4	279	23	70	186
Machine shop.....	138	59	46	33	2,320	102	478	1,740
Tool and die shop.....	55	33	15	7	546	55	148	343
Foundry pattern shop.....	3	3	-	-	5	5	-	-
Stamping, blanking and forming of metals.....	88	50	25	13	906	88	266	542
Painting, lacquering and enameling on metals.....	90	68	20	2	340	99	(D)	(D)
Plastics molding.....	29	17	7	5	271	33	68	170
Assembly of product.....	2	-	1	1	(D)	-	(D)	(D)
Shipping department, including packing and crating.....	2	2	-	-	(D)	(D)	-	-
All other operations such as maintenance, wear-housing, etc.....	2	1	1	-	(D)	(D)	(D)	-
INDUSTRY 3612.—TRANSFORMERS								
Heat treating of metals.....	27	15	10	2	187	39	(D)	(D)
Machine shop.....	36	17	5	14	1,080	32	50	998
Tool and die shop.....	20	5	10	5	321	11	109	201
Plate or structural fabrication.....	19	-	5	14	2,220	-	46	2,174
Stamping, blanking and forming of metals.....	55	16	19	20	1,681	31	199	1,452
Painting, lacquering and enameling on metals.....	70	46	15	9	511	79	153	279
INDUSTRY 3613.—SWITCHGEAR AND SWITCHBOARDS								
Nonferrous foundry (except die casting).....	2	-	-	2	(D)	-	-	(D)
Electroplating and other plating.....	70	49	15	6	438	91	153	194
Heat treating of metals.....	27	21	5	1	95	38	(D)	(D)
Automatic screw machine department.....	25	8	11	6	381	18	106	257
Machine shop.....	98	44	29	25	2,396	105	272	2,019
Tool and die shop.....	79	30	34	15	1,031	64	328	639
Foundry pattern shop.....	4	2	2	-	17	(D)	(D)	-
Plate or structural fabrication.....	43	15	14	14	1,513	30	124	1,359
Stamping, blanking and forming of metals.....	140	40	53	47	3,210	100	490	2,620
Painting, lacquering and enameling on metals.....	139	103	32	4	608	180	281	147
Plastics molding.....	30	12	10	8	652	26	112	514
INDUSTRY 3621.—MOTORS AND GENERATORS								
Ferrous foundry.....	3	-	1	2	(D)	-	(D)	(D)
Nonferrous foundry (except die casting).....	13	8	3	2	94	14	(D)	(D)
Nonferrous die casting.....	60	27	29	4	614	79	315	220
Forging--presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	7	2	4	1	54	(D)	(D)	(D)
Electroplating and other plating.....	39	20	17	2	238	(D)	159	(D)
Galvanizing and other hot dip coating.....	10	7	3	-	32	10	22	-
Heat treating of metals.....	58	36	20	2	348	(D)	185	(D)
Automatic screw machine department.....	61	25	28	8	721	65	271	385
Machine shop.....	172	43	44	87	8,793	92	476	8,225
Tool and die shop.....	118	43	45	30	1,829	90	413	1,326
Foundry pattern shop.....	14	11	3	-	51	25	26	-
Plate or structural fabrication.....	33	14	8	11	1,088	33	84	971
Stamping, blanking and forming of metals.....	129	43	45	41	2,504	91	486	1,927
Painting, lacquering and enameling on metals.....	125	82	33	10	761	172	318	271
INDUSTRY 3622.—INDUSTRIAL CONTROLS								
Electroplating and other plating.....	14	9	4	1	111	20	(D)	(D)
Heat treating of metals.....	10	6	3	1	68	11	(D)	(D)
Automatic screw machine department.....	18	12	4	2	163	22	(D)	(D)
Machine shop.....	95	46	33	16	2,042	71	294	1,677
Tool and die shop.....	29	18	5	6	547	31	57	459
Plate or structural fabrication.....	20	8	9	3	180	14	68	98
Stamping, blanking and forming of metals.....	69	36	23	10	1,474	61	170	1,243
Painting, lacquering and enameling on metals.....	74	64	8	2	276	99	(D)	(D)
Plastics molding.....	11	7	-	4	295	13	-	282

See footnotes at end of table.

TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963—Continued

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3623.—ELECTRIC WELDING APPARATUS							
Machine shop.....	61	20	22	19	1,244	51	255	938
Tool and die shop.....	17	9	5	3	211	18	56	137
Plate or structural fabrication.....	22	12	5	5	255	27	51	177
Stamping, blanking and forming of metals.....	22	16	3	3	194	31	35	128
Painting, lacquering and enameling on metals.....	30	28	2	-	67	(D)	(D)	-
	INDUSTRY 3624.—CARBON AND GRAPHITE PRODUCTS							
Machine shop.....	19	3	11	5	278	7	92	179
Tool and die shop.....	7	2	3	2	67	(D)	17	(D)
Stamping, blanking and forming of metals.....	8	5	2	1	107	10	(D)	(D)
Painting, lacquering and enameling on metal.....	1	1	-	-	(D)	(D)	-	-
	INDUSTRY 3629.—ELECTRIC INDUSTRIAL GOODS, N.E.C.							
Electroplating and other plating.....	1	-	1	-	(D)	-	(D)	-
Automatic screw machine department.....	3	2	1	-	12	(D)	(D)	-
Machine shop.....	57	29	21	7	496	50	169	277
Tool and die shop.....	23	17	5	1	102	38	(D)	(D)
Plate or structural fabrication.....	1	-	1	-	(D)	-	(D)	-
Stamping, blanking and forming of metals.....	38	20	15	3	265	38	115	112
Painting, lacquering and enameling on metals.....	35	28	6	1	160	55	(D)	(D)
Assembly of product.....	2	-	1	1	(D)	-	(D)	(D)
Shipping department, including packing and crating.	1	1	-	-	(D)	(D)	-	-
All other operations such as maintenance, warehousing, etc.....	2	1	1	-	(D)	(D)	(D)	-

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

Item	INDUSTRY							
	3611	3612	3613	3621	3622	3623	3624	3629
Total number of establishments in the industry.....	560	177	400	384	339	149	53	231
Number of establishments which reported one or more of the specified operations.....	200	82	213	222	189	68	26	80
Percent of industry production workers in these establishments.....	85-90	80-85	85-90	95-100	60-65	75-80	75-80	60-65
Number of establishments which reported "none" of the operations apply.....	28	27	39	24	36	21	16	40
Percent of industry production workers in these establishments.....	0-5	0-5	0-5	0-5	0-5	10-15	20-25	20-25
Percent of industry production workers in establishments which completed the metalworking operations inquiry.....	85-90	85-90	90-95	95-100	60-65	85-90	95-100	85-90

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.





## HOUSEHOLD APPLIANCES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3631—Household Cooking Equipment
- 3632—Household Refrigerators and Home and Farm Freezers
- 3633—Household Laundry Equipment
- 3634—Electric Housewares and Fans
- 3635—Household Vacuum Cleaners
- 3636—Sewing Machines
- 3639—Household Appliances, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3631—HOUSEHOLD COOKING EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing household cooking equipment, such as stoves, ranges and ovens. Establishments primarily engaged in manufacturing household cooking appliances, such as hot plates, grills, percolators, and toasters are classified in industry 3634. Establishments primarily engaged in manufacturing commercial cooking equipment are classified in industry 3589. For a detailed list of products of industry 3631, refer to table 6A, product codes 3631111 to 3631298.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Household Cooking Equipment Industry totaled \$473 million. This amount included shipments of household cooking equipment (primary products) valued at \$384 million, shipments of other products (secondary products) valued at \$60 million, and miscellaneous receipts (mainly products bought and resold) at \$30 million.

This industry's shipments of household cooking equipment represented 87 percent of its total product shipments. The industry specialization ratio in 1958 was 88 percent.



Secondary products shipped by this industry in 1963 include other household appliances and parts (\$6 million), and domestic heating stoves (except electric) (\$5 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 62 percent of the total industry shipments are represented by plants specializing in household ovens and ranges, equipment and parts, except electric; and 38 percent in electric household ranges and ovens.

Shipments of household cooking equipment by this industry represented 72 percent of all shipments of these products (\$537 million) by all industries. In 1958 the coverage ratio was also 72 percent. Other industries shipping household cooking equipment include industry 3433, Heating Equipment, Except Electric, \$10 million; and industry 3633, Household Laundry Equipment, over \$4 million.

The production index for the primary products of the industry increased to 114 in 1963 from the 1958 level of 90. The unit value index for 1963 was 104 compared to 107 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3632—HOUSEHOLD REFRIGERATORS AND HOME AND FARM FREEZERS

This industry comprises establishments primarily engaged in manufacturing household refrigerators and home and farm freezers. Establishments primarily engaged in manufacturing commercial and industrial refrigeration equipment, packaged room coolers, and dehumidifiers are classified in industry 3585. For a detailed list of products of industry 3632, refer to table 6A, product codes 3632111 to 3632229.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Household Refrigerators Industry totaled \$1,307 million. This amount included shipments of household refrigerators and freezers (primary products) valued at \$831 million, shipments of other products (secondary products) valued at \$432 million, and miscellaneous receipts (mainly products bought and resold) at \$44 million.

This industry's shipments of household refrigerators represented 66 percent of its total product shipments. The industry specialization ratio in 1958 was 74 percent. Secondary products shipped by this industry in 1963 include heat transfer equipment (\$148 million), and compressors and compressor units, all refrigerants (\$54 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 93 percent of the total industry shipments are represented by plants specializing in household refrigerators; and 7 percent in home and farm freezers.

Shipments of household refrigerators by this industry represented 99 percent of all shipments of these products (\$832 million) by all industries. In 1958 the coverage ratio was 98 percent.

The production index for the primary products of the industry increased to 156 in 1963 from the 1958 level of 112. The unit value index for 1963 was 72 compared to 87 in 1958. Both indexes were computed on a basis of 1954 = 100.

### 3633—HOUSEHOLD LAUNDRY EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing laundry equipment such as washing machines, wringers, driers, and ironers for household use. Establishments primarily engaged in manufacturing commercial laundry equipment are classified in industry 3582. Although the SIC classifies coin-operated washing machines in industry 3582, data for these machines are included in the 1963 Census of Manufactures in industry 3633 as in 1958. For a detailed list of products of industry 3633, refer to table 6A, product codes 3633131 to 3633298.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Household Laundry Equipment Industry totaled \$760 million. This amount included shipments of household laundry equipment (primary products) valued at \$664 million, shipments of other products (secondary products) valued at \$79 million, and miscellaneous receipts (mainly products bought and resold) at \$17 million.

This industry's shipments of household laundry equipment represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 consisted mainly of commercial laundry, dry cleaning, and pressing machinery and equipment (\$7 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 97 percent of the total industry shipments are represented by plants specializing in household mechanical washing machines, dryers, and washer-dryer combinations; and 3 percent in other household laundry equipment and parts.

Shipments of household laundry equipment by this industry represented 87 percent of all shipments of these products (\$766 million) by all industries. In 1958 the coverage ratio was 91 percent. Other industries shipping household laundry equipment include industry 3632, Household Refrigerators, over \$50 million.

The production index for the primary products of the industry increased to 134 in 1963 from the 1958 level of 117. The unit value index for 1963 was 96 compared to 103 in 1958. Both indexes were computed on a basis of 1954 = 100.

### 3634—ELECTRIC HOUSEWARES AND FANS

This industry comprises establishments primarily engaged in manufacturing electric housewares for heating, cooking, and other purposes; and electric fans. Important products of this industry include electric air heaters, bed covering, blenders, broilers, deep fat fryers, flat irons, food mixers, hot plates, percolators and coffee makers, roasters, toasters, desk and bracket fans, and hassock or floor fans. For a detailed list of products of industry 3634, refer to table 6A, product codes 3634111 to 3634431.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Electric Housewares and Fans Industry totaled \$850 million. This amount included shipments of electric housewares and fans (primary products) valued at \$658 million, shipments of other products (secondary products) valued at \$101 million, and miscellaneous receipts (mainly products bought and resold) at \$91 million.



This industry's shipments of electric housewares and fans represented 87 percent of its total product shipments. The industry specialization ratio in 1958 was 86 percent.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 24 percent of the total industry shipments are represented by plants specializing in electric fans, except industrial type; and 74 percent in other small household electric appliances except parts and electric razors.

Shipments of electric housewares and fans by this industry represented 81 percent of all shipments of these products (\$810 million) by all industries. In 1958 the coverage ratio was 82 percent. Other industries shipping electric housewares and fans include industry 3461, Metal Stampings \$31 million; and industry 3631, Household Cooking Equipment, over \$6 million.

The production index for the primary products of the industry increased to 189 in 1963 from the 1958 level of 108. The unit value index for 1963 was 86 compared to 101 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3635—HOUSEHOLD VACUUM CLEANERS

This industry comprises establishments primarily engaged in manufacturing vacuum cleaners for household use. Establishments primarily engaged in manufacturing vacuum cleaners for industrial use are classified in industry 3584. For a detailed list of products of industry 3635, refer to table 6A, product codes 3635011 to 3635071.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Household Vacuum Cleaners Industry totaled \$175 million. This amount included shipments of household vacuum cleaners (primary products) valued at \$146 million, shipments of other products (secondary products) valued at \$23 million, and miscellaneous receipts (mainly products bought and resold) at \$6 million.

This industry's shipments of household vacuum cleaners represented 87 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent.

Shipments of household vacuum cleaners by this industry represented 80 percent of all shipments of these products (\$183 million) by all industries. In 1958 the coverage ratio was 83 percent. Other industries shipping household vacuum cleaners include industry 3639, Household Appliances, N.E.C., over \$10 million; and industry 3634, Electric Housewares and Fans, over \$2 million.

The production index for the primary products of the industry increased to 145 in 1963 from the 1958 level of 119. The unit value index for 1963 was 93 compared to 96 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3636—SEWING MACHINES

This industry comprises establishments primarily engaged in manufacturing sewing machines for domestic and industrial use. For a detailed list of products of industry 3636, refer to table 6A, product codes 3636011 to 3636081.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Sewing Machines Industry totaled \$117 million. This amount included shipments of sewing machines (primary products) valued at \$101 million.

This industry's shipments of sewing machines represented 90 to 95 percent of its total product shipments. The industry specialization ratio in 1958 was 97 percent.

Shipments of sewing machines by this industry represented 96 percent of all shipments of these products (\$105 million) by all industries. In 1958 the coverage ratio was 94 percent.

The production index for the primary products of the industry decreased to 76 in 1963 from the 1958 level of 78. The unit value index for 1963 was 128 compared to 117 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3639—HOUSEHOLD APPLIANCES NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing household appliances, n.e.c., such as hot water heaters, dishwashers, and food waste disposal units. For a detailed list of products of industry 3639, refer to table 6A, product codes 3639111 to 3639391.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Household Appliances, N.E.C., Industry totaled \$435 million. This amount included shipments of household appliances, n.e.c. (primary products) valued at \$327 million, shipments of other products (secondary products) valued at \$90 million, and miscellaneous receipts (mainly products bought and resold) at \$18 million.

This industry's shipments of household appliances, n.e.c., represented 79 percent of its total product shipments. The industry specialization ratio in 1958 was also 79 percent. Secondary products shipped by this industry in 1963 include other heating equipment (except electric) and parts for nonelectric heating equipment (\$13 million), and household vacuum cleaners, including parts and attachments, over (\$10 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 48 percent of the total industry shipments are represented by plants specializing in household water heaters, except electric.

Shipments of household appliances, n.e.c., by this industry represented 79 percent of all shipments of these products (\$415 million) by all industries. In 1958 the coverage ratio was 83 percent.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3639, e.g., water heaters, electric, 87 percent; water heaters, except electric, 93 percent; and other household appliances and parts, 67 percent.

The production index for the primary products of the industry increased to 195 in 1963 from the 1958 level of 140. The unit value index for 1963 was 83 compared to 95 in 1958. Both indexes were computed on a basis of 1954 = 100.



# HOUSEHOLD APPLIANCES: SIC 363

## Value Added by Manufacture by State: 1963

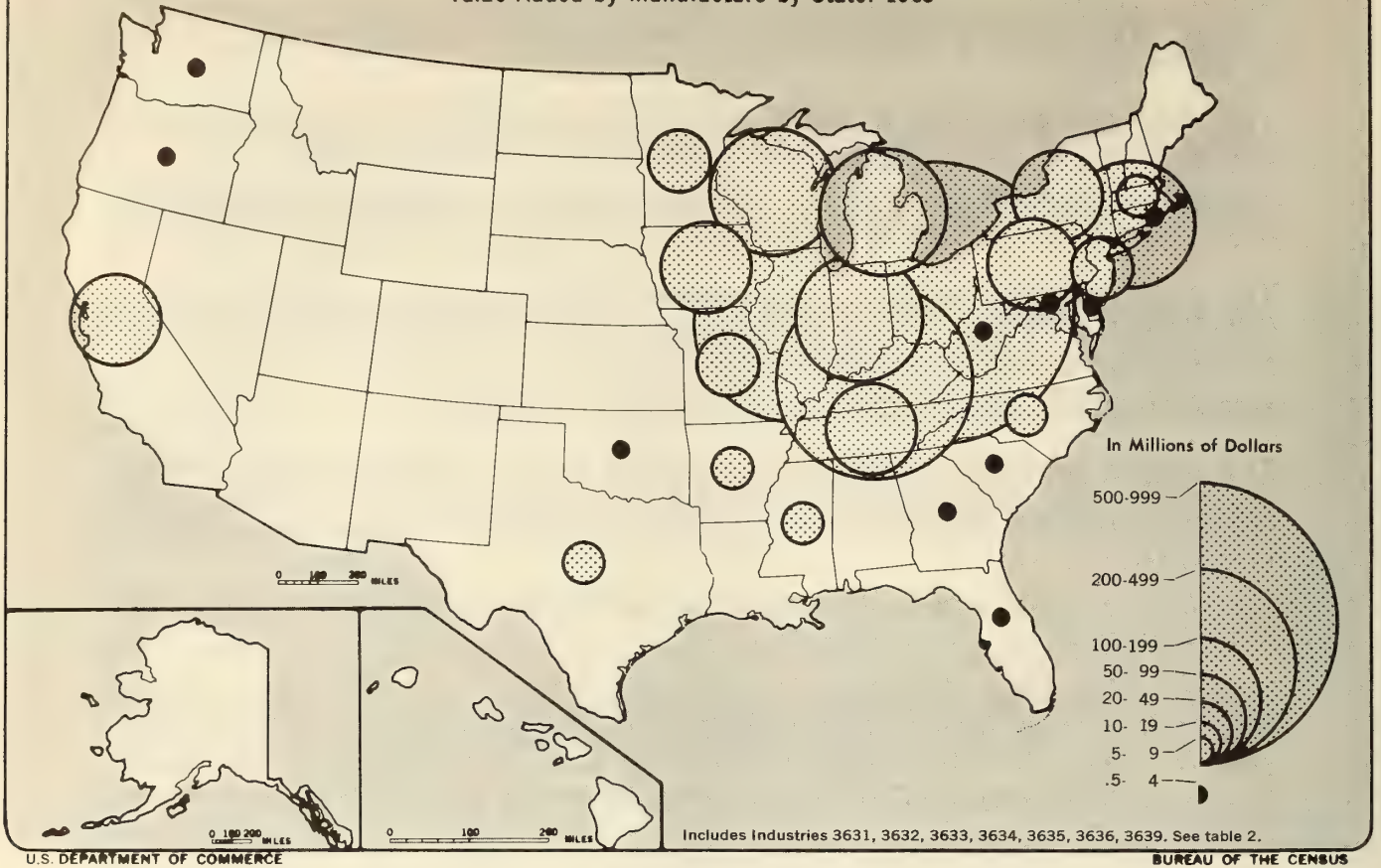


TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new  (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3631.—HOUSEHOLD COOKING EQUIPMENT														
1963.....	77	83	53	19,191	111,266	15,149	30,356	75,580	230,285	253,530	473,453	8,216	87	72
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,787	102,704	14,158	27,216	66,463	192,219	216,962	411,859	4,736	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,882	102,103	14,184	27,904	65,878	184,862	218,070	401,412	3,728	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,127	104,139	15,031	29,197	63,084	186,191	219,697	407,253	6,970	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,979	96,746	14,979	29,971	66,146	194,260	216,927	411,370	6,163	(NA)	(NA)
1958 <sup>2</sup> .....	64	69	55	18,152	89,239	14,101	28,160	60,331	181,091	184,950	364,852	4,002	88	72
INDUSTRY 3632.—HOUSEHOLD REFRIGERATORS														
1963.....	31	34	25	43,065	279,977	35,232	69,978	212,228	631,269	696,141	1,306,539	21,765	66	99
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	42,110	259,054	34,849	73,040	199,392	570,432	661,374	1,205,186	13,333	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	41,714	253,579	33,855	66,812	192,422	470,067	621,963	1,101,562	13,757	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	47,137	265,108	38,835	73,899	202,905	525,537	660,740	1,156,781	16,023	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	47,016	253,554	38,972	77,429	195,100	537,346	672,934	1,199,406	(12,541)	(NA)	(NA)
1958 <sup>2</sup> .....	25	26	26	41,493	221,439	33,177	65,592	167,352	433,369	537,586	1,002,302	9,870	74	98
INDUSTRY 3633.—HOUSEHOLD LAUNDRY EQUIPMENT														
1963.....	31	39	28	18,343	115,387	14,738	28,827	85,865	353,863	416,015	760,161	9,217	89	87
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,091	131,584	15,584	30,648	88,528	346,398	414,837	755,743	6,419	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,480	126,735	15,594	30,438	83,620	313,836	395,675	715,361	7,070	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,362	131,831	17,258	32,925	88,885	279,150	433,400	722,983	10,690	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	25,906	142,060	19,380	37,521	96,586	347,376	488,709	835,786	11,125	(NA)	(NA)
1958 <sup>2</sup> .....	33	39	33	24,597	134,263	18,021	35,751	89,586	324,480	427,180	738,920	7,219	91	91
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,901	105,674	16,395	31,365	72,728	238,290	395,604	629,176	12,090	95	85
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	25,271	118,898	19,758	38,228	86,778	271,198	453,107	708,747	20,954	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,819	108,247	18,948	36,626	78,469	241,594	387,983	628,284	15,239	(NA)	(NA)
1954.....	48	56	39	22,105	98,556	16,710	32,497	68,066	190,686	331,882	541,346	18,569	93	81
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	27,441	120,019	20,986	(NA)	85,349	213,374	355,667	569,041	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	25,086	103,913	19,267	(NA)	71,203	195,012	286,654	481,668	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,442	91,977	17,927	(NA)	62,792	173,318	290,940	464,260	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,797	82,186	17,887	(NA)	59,593	165,761	266,535	432,298	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,556	63,535	14,095	(NA)	43,498	119,968	181,229	301,199	(NA)	(NA)	(NA)
1947.....	59	65	(NA)	28,403	85,596	23,651	48,647	65,596	161,791	280,539	442,297	(NA)	90	91
1939.....	(NA)	42	(NA)	9,610	13,890	7,466	(NA)	9,277	25,236	36,365	61,601	(NA)	(NA)	(NA)
1937.....	(NA)	40	(NA)	10,575	14,250	9,302	(NA)	11,675	28,681	41,208	69,889	(NA)	(NA)	(NA)
1935.....	(NA)	41	(NA)	10,271	12,605	8,742	(NA)	9,852	25,384	37,041	62,425	(NA)	(NA)	(NA)
1933.....	(NA)	41	(NA)	8,240	8,528	6,956	(NA)	6,363	20,181	24,361	44,542	(NA)	(NA)	(NA)
INDUSTRY 3634.—ELECTRIC HOUSEWARES AND FANS														
1963.....	286	312	136	38,801	188,257	31,053	59,567	126,912	463,845	394,578	850,281	17,009	87	81
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	35,006	170,608	27,922	52,166	112,907	403,992	355,715	740,524	10,679	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	31,789	151,653	25,308	47,744	99,992	359,976	310,274	671,054	8,688	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	32,334	152,561	25,833	49,101	101,544	355,716	293,010	628,566	11,193	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	30,226	139,094	23,815	45,929	93,074	335,014	261,030	596,219	10,688	(NA)	(NA)
1958 <sup>2</sup> .....	289	311	105	29,150	128,850	22,477	42,804	84,557	301,033	245,105	559,090	9,985	86	82
INDUSTRY 3635.—HOUSEHOLD VACUUM CLEANERS														
1963.....	34	34	13	5,682	35,524	4,235	8,208	22,670	116,137	65,315	175,357	5,739	87	80
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,553	33,439	4,016	7,807	20,692	107,518	59,682	163,580	4,232	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,672	33,303	3,980	7,619	19,728	90,237	58,007	150,803	2,803	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,739	33,634	4,057	7,894	20,312	94,148	62,431	154,421	2,280	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,872	33,590	4,221	8,498	20,748	90,233	65,463	153,692	4,184	(NA)	(NA)
1958 (new SIC).....	27	27	14	5,330	29,863	3,750	7,454	17,956	84,180	55,359	142,020	2,217	93	83
1958 (old SIC) <sup>2</sup> .....	(NA)	46	21	5,871	32,720	4,116	8,188	19,370	89,409	62,220	153,870	2,240	(NA)	(NA)
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,967	38,098	5,147	9,806	24,497	103,851	67,891	171,756	2,576	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,899	46,023	6,828	13,302	30,408	120,036	89,554	205,217	(NA)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,430	40,491	6,562	12,194	26,770	106,520	84,581	187,970	(NA)	(NA)	(NA)
1954.....	37	39	21	8,383	38,867	6,408	12,717	26,903	89,877	66,057	160,512	2,094	80	88
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,517	47,543	8,014	16,440	33,365	107,419	77,082	184,501	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,242	49,165	8,683	18,374	35,500	98,365	83,643	181,958	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,702	47,329	9,014	(NA)	33,393	86,097	81,100	167,147	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,254	42,735	8,702	17,464	30,297	101,309	73,027	174,286	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,656	37,711	7,982	15,859	26,398	75,994	73,960	149,904	(NA)	(NA)	(NA)
1947.....	34	34	20	14,880	44,797	12,232	24,434	35,266	91,047	74,994	160,184	(NA)	(NA)	(NA)
1939.....	(NA)	21	(NA)	(NA)	(NA)	3,886	(NA)	5,288	33,113	9,132	42,245	(NA)	(NA)	(NA)
INDUSTRY 3636.—SEWING MACHINES														
1963.....	83	86	17	7,646	51,962	5,844	12,136	36,303	98,328	30,567	117,157	2,568	90-95	96
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,793	44,702	4,538	10,141	29,098	81,537	48,333	120,327	1,536	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,921	58,926	6,703	13,791	38,008	89,730	50,068	136,765	3,511	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,373	62,407	7,132	15,748	41,168	87,526	50,267	134,925	4,262	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,771	53,524	7,109	13,904	34,834	72,248	49,412	128,647	(S)	(NA)	(NA)
1958.....	83	85	17	9,607	48,314	7,004	13,343	32,782	61,991	44,597	109,314	5,380	97	94
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,745	55,748	8,828	17,072	40,241	84,494	36,453	121,786	4,360	91	97

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spec- ial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
	INDUSTRY 3636.—SEWING MACHINES—Continued													
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,296	64,094	10,049	19,649	45,881	89,176	46,167	127,156	3,668	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,880	59,412	10,799	19,929	43,663	77,896	47,030	129,736	2,381	(NA)	(NA)
1954.....	78	82	28	12,414	56,552	9,443	19,142	40,697	70,339	38,796	114,185	3,045	91	94
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,963	69,114	12,611	24,773	49,508	84,454	51,531	135,985	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,381	71,487	14,152	27,021	53,764	98,836	41,024	139,860	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,190	78,627	16,075	(NA)	61,457	105,131	46,475	151,606	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,429	72,386	16,453	33,238	57,964	105,346	63,382	168,728	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,325	53,335	12,666	27,518	41,271	79,240	47,694	126,934	(NA)	(NA)	(NA)
1947.....	69	70	(NA)	15,305	48,484	12,647	26,095	37,926	68,681	28,880	97,011	(NA)	95	94
1939.....	(NA)	39	(NA)	9,568	14,895	7,840	(NA)	11,157	21,096	8,611	29,707	(NA)	(NA)	(NA)
1937.....	(NA)	36	(NA)	10,195	16,243	9,019	(NA)	13,551	25,833	9,003	34,836	(NA)	(NA)	(NA)
1935.....	(NA)	39	(NA)	8,699	11,574	7,509	(NA)	9,053	16,603	6,032	22,635	(NA)	(NA)	(NA)
1933.....	(NA)	30	(NA)	7,136	7,590	6,313	(NA)	6,034	10,064	2,862	12,926	(NA)	(NA)	(NA)
	INDUSTRY 3639.—HOUSEHOLD APPLIANCES, N.E.C.													
1963.....	102	112	67	13,127	81,590	9,896	19,929	54,286	204,188	233,073	435,458	6,738	79	79
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,168	79,532	9,798	19,565	52,889	172,287	241,732	412,638	7,532	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,219	73,317	8,625	17,414	46,583	140,968	209,730	353,219	(5,624)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	12,460	73,598	8,869	17,603	44,842	143,146	206,457	348,470	8,298	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	14,359	81,506	10,021	19,003	49,190	161,668	235,366	398,977	(S)	(NA)	(NA)
1958 <sup>2</sup> .....	86	94	71	14,622	79,658	10,102	19,985	47,367	162,664	212,004	378,758	4,365	79	83

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: **All employees:** For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). **Production workers:** For 1947 and prior years figures represent an average of 12 monthly figures. **Value added:** Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. **Cost of materials:** Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. **Value of shipments:** Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification. Accordingly, the data for 1963 and 1958 are not comparable with those for earlier years.

<sup>3</sup>A minor revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so that the industry is not strictly comparable. The 1957 and earlier figures are on the old SIC definition of the industry which included industrial vacuum cleaners and parts.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
INDUSTRY 3631.—HOUSEHOLD COOKING EQUIPMENT													
Total.....	83	53	19,191	111,266	15,149	30,356	75,580	230,285	253,530	473,453	8,216	18,152	181,091
Northeast.....	16	12	3,010	17,050	2,429	4,923	11,295	29,365	35,014	61,960	943	3,019	20,140
Pennsylvania.....	6	5	1,470	8,620	1,093	2,169	4,709	14,782	15,360	29,629	(D)	( <sup>2</sup> )	( <sup>2</sup> )
North Central.....	31	19	8,306	49,178	6,561	12,643	34,385	93,767	104,448	196,284	2,192	8,887	90,176
Illinois.....	18	12	5,214	30,139	4,489	8,492	23,663	57,595	69,059	125,608	1,203	5,628	56,719
South.....	21	11	5,472	29,385	4,455	9,320	20,895	79,583	84,096	159,275	3,991	4,245	51,561
Pacific.....	15	11	2,403	15,653	1,704	3,470	9,005	27,570	29,972	55,934	1,090	2,001	19,214
California.....	15	11	2,403	15,653	1,704	3,470	9,005	27,570	29,972	55,934	1,090	2,001	19,214
INDUSTRY 3632.—HOUSEHOLD REFRIGERATORS													
Total.....	34	25	43,065	279,977	35,232	69,978	212,228	631,269	696,141	1,306,539	21,765	41,493	433,369
East North Central.	19	17	34,130	226,342	27,883	55,579	172,159	498,188	536,686	1,020,635	18,511	32,068	311,460
Michigan.....	7	6	4,939	29,729	4,028	8,303	22,547	55,894	87,845	142,205	3,960	4,696	37,092
Wisconsin.....	3	3	521	2,989	410	865	2,079	5,372	7,056	12,298	103	1,165	9,523
All other divisions	15	8	8,935	53,635	7,349	14,399	40,069	133,081	159,455	285,904	3,254	9,425	121,909
INDUSTRY 3633.—HOUSEHOLD LAUNDRY EQUIPMENT													
Total.....	39	28	18,343	115,387	14,738	28,827	85,865	353,863	416,015	760,161	9,217	24,597	324,480
East North Central.	22	18	12,764	80,406	10,122	19,377	58,586	220,255	307,205	518,195	6,400	13,904	181,451
All other divisions	17	10	5,579	34,981	4,616	9,450	27,279	133,608	108,810	241,966	2,817	10,693	143,029
INDUSTRY 3634.—ELECTRIC HOUSEWARES AND FANS													
Total.....	312	136	38,801	188,257	31,053	59,567	126,912	463,845	394,578	850,281	17,009	29,150	301,033
New England.....	28	16	5,403	27,261	4,162	8,198	17,847	90,583	49,090	137,134	2,416	4,613	57,822
Massachusetts.....	11	5	269	1,130	211	382	792	1,052	1,534	4,150	30	( <sup>2</sup> )	( <sup>2</sup> )
Middle Atlantic....	93	36	6,498	31,233	5,243	10,060	20,929	81,287	60,699	141,274	2,188	5,422	56,849
New York.....	66	30	4,220	19,025	3,438	6,556	12,858	44,283	38,569	82,622	949	3,489	29,943
East North Central.	75	31	12,676	75,728	9,360	17,793	46,488	157,884	142,396	298,883	5,220	11,767	114,274
Illinois.....	31	16	7,022	43,917	5,228	9,919	26,993	97,193	89,355	183,913	2,873	7,549	73,860
Wisconsin.....	11	4	2,330	12,950	1,647	3,180	7,945	23,391	16,579	41,693	1,052	2,043	17,661
West North Central.	18	9	2,833	11,460	2,559	5,214	9,544	23,868	26,765	50,631	797	2,214	14,724
Missouri.....	8	7	2,676	10,842	2,432	4,960	9,094	22,977	25,947	48,938	762	2,094	14,088
South Atlantic.....	25	14	3,195	12,101	2,774	5,522	9,351	27,658	34,605	61,892	(D)	( <sup>2</sup> )	( <sup>2</sup> )
North Carolina...	10	5	2,064	7,823	1,820	3,615	6,279	17,851	21,053	38,726	1,338	1,061	11,169
East South Central.	16	13	5,443	17,205	4,659	8,320	12,786	41,750	58,721	95,554	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Tennessee.....	8	6	2,425	8,256	2,140	3,988	6,374	25,698	25,626	48,944	800	530	4,997
West South Central.	13	6	1,211	4,123	1,080	2,125	3,477	5,090	6,799	13,022	(D)	( <sup>2</sup> )	( <sup>2</sup> )
West.....	44	11	1,542	9,146	1,216	2,335	6,490	35,725	15,503	51,891	658	( <sup>2</sup> )	( <sup>2</sup> )
California.....	34	8	1,387	8,557	1,085	2,102	6,042	34,721	14,119	49,479	617	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3635.—HOUSEHOLD VACUUM CLEANERS													
Total.....	34	13	5,682	35,524	4,235	8,208	22,670	116,137	65,315	175,357	5,739	5,330	84,180
North Central.....	16	7	4,233	26,617	3,095	6,053	16,624	83,924	50,171	128,164	5,175	3,962	59,660
All other divisions	18	6	1,449	8,907	1,140	2,155	6,046	32,213	15,144	47,193	564	1,368	24,520
New York.....	6	1	105	442	91	182	299	680	785	1,447	15	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3636.—SEWING MACHINES													
Total.....	86	17	7,646	51,962	5,844	12,136	36,303	98,328	30,567	117,157	2,568	9,607	61,991
Middle Atlantic....	55	8	4,246	28,962	3,170	6,459	20,125	43,726	16,929	55,126	990	5,912	32,225
All other divisions	31	9	3,400	23,000	2,674	5,677	16,178	54,602	13,638	62,031	1,570	3,695	29,766

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
	INDUSTRY 3639.—HOUSEHOLD APPLIANCES, N.E.C.												
Total.....	112	67	13,127	81,590	9,896	19,929	54,286	204,188	233,073	435,458	6,738	14,622	162,664
New England.....	4	3	752	3,861	502	1,007	2,184	10,001	9,286	18,753	(D)	2,591	23,199
Middle Atlantic....	15	9	1,071	6,123	837	1,554	4,145	12,573	17,224	30,944	(D)		
New York.....	9	5	257	1,529	195	387	981	2,962	3,408	6,463	87		
East North Central.	41	24	5,762	37,766	4,440	9,024	26,072	86,489	98,155	184,499	2,233	( <sup>2</sup> )	( <sup>2</sup> )
Ohio.....	9	5	266	1,376	190	391	842	6,681	5,164	11,879	50	582	6,761
Indiana.....	6	4	818	5,250	630	1,291	3,508	13,710	13,131	27,054	97	( <sup>2</sup> )	( <sup>2</sup> )
Illinois.....	13	8	3,319	22,014	2,605	5,277	15,891	39,795	55,384	95,436	1,161	( <sup>2</sup> )	( <sup>2</sup> )
West North Central.	4	3	133	788	98	200	488	1,619	1,568	3,211	23	( <sup>2</sup> )	( <sup>2</sup> )
South.....	23	15	2,347	13,887	1,913	3,899	9,600	54,675	48,101	100,699	939	2,597	31,931
West.....	25	13	3,062	19,165	2,106	4,245	11,797	38,831	58,739	97,352	2,147	3,461	42,577
California.....	17	10	2,749	17,418	1,869	3,802	10,572	34,311	54,833	89,032	2,050	3,134	40,849

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3631, Household Cooking Equipment: New England—Massachusetts, 2 (20-99); Connecticut, 1 (100-249); Middle Atlantic—New York, 7 (1,338); East North Central—Ohio, 4 (1,000-2,499); Indiana, 1 (1-19); Michigan, 5 (1-19); Wisconsin, 2 (1,000-2,499); West North Central—Missouri, 1 (20-99); South Atlantic—District of Columbia, 1 (1-19); East South Central—Kentucky, 2 (1,000-2,499); Tennessee, 10 (3,143); Alabama, 1 (1-19); Mississippi, 1 (100-249); West South Central—Oklahoma, 3 (20-99); Texas, 3 (1-19).

SIC 3632, Household Refrigerators: New England—Massachusetts, 1 (1-19); Middle Atlantic—New York, 3 (100-249); East North Central—Ohio, 2 (10,000 and over); Indiana, 4 (5,000-9,999); Illinois, 3 (2,968); West North Central—Minnesota, 4 (2,105); Iowa, 1 (500-999); Missouri, 1 (1-19); East South Central—Kentucky, 1 (2,500-4,999); West South Central—Arkansas, 1 (1,000-2,499); Texas, 1 (100-249); Pacific—California, 2 (1-19).

SIC 3633, Household Laundry Equipment: Middle Atlantic—New York, 4 (250-499); Pennsylvania, 1 (250-499); East North Central—Ohio, 5 (6,486); Indiana, 1 (1-19); Illinois, 4 (2,882); Michigan, 6 (1,916); Wisconsin, 6 (1,000-2,499); West North Central—Minnesota, 1 (20-99); Iowa, 6 (2,599); Nebraska, 1 (1-19); East South Central—Kentucky, 1 (1,000-2,499); Pacific—Oregon, 1 (1-19); California, 2 (1-19).

SIC 3634, Electric Housewares and Fans: New England—Maine, 1 (1-19); New Hampshire, 1 (1-19); Rhode Island, 1 (1-19); Connecticut, 14 (5,130); Middle Atlantic—New Jersey, 18 (219); Pennsylvania, 9 (2,059); East North Central—Ohio, 9 (2,377); Indiana, 8 (765); Michigan, 16 (182); West North Central—Minnesota, 7 (152); Iowa, 1 (1-19); Kansas, 2 (1-19); South Atlantic—Delaware, 1 (100-249); Maryland, 2 (250-499); Virginia, 1 (20-99); West Virginia, 1 (20-99); South Carolina, 3 (458); Georgia, 2 (20-99); Florida, 5 (20-99); East South Central—Kentucky, 2 (500-999); Mississippi, 6 (1,000-2,499); West South Central—Arkansas, 3 (500-999); Louisiana, 3 (20-99); Oklahoma, 1 (1-19); Texas, 6 (359); Mountain—Colorado, 2 (1-19); Arizona, 1 (1-19); Pacific—Washington, 4 (20-99); Oregon, 3 (20-99).

SIC 3635, Household Vacuum Cleaners: New England—Connecticut, 1 (1,000-2,499); Middle Atlantic—New Jersey, 1 (1-19); Pennsylvania, 1 (20-99); East North Central—Ohio, 10 (3,155); Illinois, 3 (1,054); Michigan, 1 (1-19); Wisconsin, 1 (1-19); West North Central—Iowa, 1 (1-19); South Atlantic—Florida, 1 (1-19); West South Central—Oklahoma, 2 (20-99); Mountain—Colorado, 1 (1-19); Pacific—Oregon, 1 (20-99); California, 4 (188).

SIC 3636, Sewing Machines: New England—Maine, 2 (1-19); New Hampshire, 1 (1-19); Massachusetts, 8 (454); Connecticut, 2 (1,000-2,499); Middle Atlantic—New York, 45 (704); New Jersey, 6 (2,500-4,999); Pennsylvania, 4 (1-19); East North Central—Illinois, 5 (1,201); Michigan, 1 (1-19); West North Central—Minnesota, 2 (20-99); South Atlantic—Maryland, 1 (20-99); North Carolina, 1 (1-19); Florida, 1 (1-19); East South Central—Tennessee, 1 (1-19); Alabama, 1 (1-19); Mississippi, 1 (1-19); West South Central—Texas, 1 (1-19); Mountain—Arizona, 1 (1-19); Pacific—California, 2 (1-19).

SIC 3639, Household Appliances, N.E.C.: New England—Massachusetts, 2 (500-999); Rhode Island, 1 (100-249); Connecticut, 1 (20-99); Middle Atlantic—New Jersey, 1 (1-19); Pennsylvania, 4 (250-499); East North Central—Michigan, 5 (504); Wisconsin, 8 (855); West North Central—Iowa, 1 (20-99); Missouri, 1 (20-99); Nebraska, 1 (20-99); Kansas, 1 (1-19); South Atlantic—Maryland, 1 (100-249); Georgia, 1 (20-99); Florida, 4 (20-99); East South Central—Kentucky, 2 (1,000-2,499); Tennessee, 9 (500-999); Mississippi, 1 (1-19); West South Central—Oklahoma, 1 (20-99); Texas, 4 (284); Mountain—Colorado, 1 (1-19); Pacific—Washington, 5 (227); Oregon, 2 (20-99).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

TABLE 3. Detailed Statistics: 1963

Item	Household cooking equipment (SIC 3631)	Household refrigerators (SIC 3632)	Household laundry equipment (SIC 3633)	Electric house-ware and fans (SIC 3634)	Household vacuum cleaners (SIC 3635)	Sewing machines (SIC 3636)	Household appliances, n.e.c. (SIC 3639)
Primary product specialization ratio <sup>1</sup> .....	.87	.66	.89	.87	.87	.90-.95	.79
Coverage ratio <sup>2</sup> .....	.72	.99	.87	.81	.80	.96	.79
Establishments, total.....number..	83	34	39	312	34	86	112
With 1 to 19 employees.....do....	30	9	11	176	21	69	45
With 20 to 99 employees.....do....	17	5	9	71	6	10	41
With 100 employees or more.....do....	36	20	19	65	7	7	26
Proprietors and working partners.....do....	15	4	3	67	7	34	20
All employees (average for the year).....do....	19,191	43,065	18,343	38,801	5,682	7,646	13,127
Payroll (all employees), total for year.....\$1,000..	111,266	279,977	115,387	188,257	35,524	51,962	81,590
Production workers:							
Average for the year.....number..	15,149	35,232	14,738	31,053	4,235	5,844	9,896
March.....do....	15,354	34,078	14,738	28,784	4,321	5,524	9,635
May.....do....	16,044	35,652	11,386	29,364	4,364	5,674	9,881
August.....do....	14,681	34,021	15,925	31,656	4,261	5,839	9,862
November.....do....	14,517	37,177	16,903	34,408	3,994	6,340	10,206
Man-hours.....1,000..	30,356	69,978	28,827	59,567	8,208	12,136	19,929
January-March.....do....	7,452	18,665	6,889	13,771	2,157	2,884	4,816
April-June.....do....	8,296	16,495	7,046	14,317	2,132	3,112	5,123
July-September.....do....	7,197	16,365	6,989	14,675	1,989	2,816	4,864
October-December.....do....	7,427	18,453	7,903	16,804	1,930	3,324	5,126
Wages.....\$1,000..	75,580	212,228	85,865	126,912	22,670	36,303	54,286
Cost of materials, etc., total.....do....	253,530	696,141	416,015	394,578	65,315	30,567	233,073
Materials, parts, containers, and supplies consumed.....do....	235,937	648,625	396,067	335,544	59,439	24,204	215,869
Cost of resales.....do....	10,524	33,242	12,495	50,174	3,364	5,039	12,525
Fuels consumed.....do....	2,319	5,180	2,470	2,312	363	358	1,511
Electric energy:							
Purchased:							
Quantity.....million kw.-hrs..	236	738	309	247	60	54	128
Cost.....\$1,000..	2,518	7,548	3,313	3,711	748	618	1,695
Generated less sold.....million kw.-hrs..	(D)	-	(D)	(D)	-	-	(D)
Contract work.....\$1,000..	2,232	1,546	1,670	2,837	1,401	348	1,473
Value of shipments (including resales), total.....do....	473,453	1,306,539	760,161	850,281	175,357	117,157	435,458
Value of resales.....do....	16,953	38,645	14,870	72,623	(D)	(D)	13,597
Value added by manufacture, adjusted.....do....	230,285	631,269	353,863	463,845	116,137	98,328	204,188
Manufacturers' inventories:							
Beginning of year, total.....do....	73,214	179,827	100,539	143,762	22,674	51,500	53,575
Finished products.....do....	34,777	111,683	51,215	68,339	9,539	18,977	20,532
Work-in-process.....do....	13,601	30,741	19,300	35,220	7,574	28,851	15,173
Materials, supplies, fuel, etc.....do....	24,836	37,403	30,024	40,203	5,561	3,672	17,870
End of year, total.....do....	84,918	208,619	110,827	159,772	30,087	63,738	58,124
Finished products.....do....	45,162	121,280	60,310	79,720	16,325	19,585	24,157
Work-in-process.....do....	13,578	42,015	19,922	31,981	6,883	39,981	13,351
Materials, supplies, fuel, etc.....do....	26,178	45,324	30,595	48,071	6,879	4,172	20,616
Expenditures for plant and equipment, total.....do....	8,310	23,933	9,397	18,409	6,285	5,929	7,013
New, total.....do....	8,216	21,765	9,217	17,009	5,739	5,668	6,738
New structures and additions to plant.....do....	2,738	2,744	1,485	2,512	2,865	2,604	1,078
New machinery and equipment.....do....	5,478	19,021	7,732	14,497	2,874	1,964	5,660
Used plant and equipment.....do....	94	2,168	180	1,400	546	3,361	275
Selected operating ratios:							
Payroll/Total employment.....	5,870	6,501	6,291	4,852	6,252	6,796	6,215
Production workers/Total employment.....	.79	.82	.80	.80	.75	.76	.75
Man-hours/Production workers.....	2,003	1,986	1,956	1,918	1,938	2,077	2,014
Production worker wages/Man-hours.....	2.49	3.03	2.98	2.13	2.76	2.99	2.72
Cost of materials and payrolls/Total value of shipments....	.77	.75	.70	.69	.58	.67	.72
Cost of materials/Total value of shipments.....	.54	.53	.55	.46	.37	.25	.54
Adjusted value added/Total employment.....	12,000	14,659	19,291	11,954	20,439	13,655	15,555
Salaries and wages/Adjusted value added.....	.48	.44	.33	.41	.31	.50	.40

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

<sup>3</sup>In addition respondents were requested to report total production workers for each month. This information is as follows: January, 33,689; February, 33,564; March, 34,078; April, 34,625; May, 35,652; June, 35,957; July, 34,407; August, 34,021; September, 35,766; October, 35,995; November, 37,177; December, 37,634; The average number of production workers for the year based on a 12 month average was 35,214. This average differs from that shown in this table, table 1, 2, and 8 because they are based on a four month average.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3631.—HOUSEHOLD COOKING EQUIPMENT											
Establishments.....number..	83	18	7	5	6	12	10	10	10	5	-
All employees:											
Total.....do....	19,191	22	55	67	204	884	1,598	3,181	6,851	6,329	-
Payroll.....\$1,000..	111,266	105	294	345	778	4,403	8,092	16,041	39,315	41,893	-
Value added, adjusted.....do....	230,285	149	486	898	1,536	5,778	12,791	24,609	71,818	112,220	-
Value of shipments.....do....	473,453	412	1,518	1,840	4,044	17,183	34,117	61,079	143,229	210,031	-
Capital expenditures, new...do....	8,216	6	71	23	39	145	173	1,406	2,526	3,827	-
INDUSTRY 3632.—HOUSEHOLD REFRIGERATORS											
Establishments.....number..	34	7	1	1	2	3	4	3	2	6	5
All employees:											
Total.....do....	43,065	17	(D)	282	(D)	(D)	798	2,550	(D)	8,112	31,306
Payroll.....\$1,000..	279,977	87	(D)	1,572	(D)	(D)	4,334	13,783	(D)	46,258	213,943
Value added, adjusted.....do....	631,269	142	(D)	2,517	(D)	(D)	8,865	20,165	(D)	90,774	508,806
Value of shipments.....do....	1,306,539	327	(D)	6,253	(D)	(D)	21,206	64,096	(D)	245,129	969,528
Capital expenditures, new...do....	21,765	8	(D)	50	(D)	(D)	2,859	(D)	(D)	4,037	14,811
INDUSTRY 3633.—HOUSEHOLD LAUNDRY EQUIPMENT											
Establishments.....number..	39	5	2	4	3	6	5	4	3	6	1
All employees:											
Total.....do....	18,343	3	71	(D)	99	419	758	1,181	2,468	13,344	(D)
Payroll.....\$1,000..	115,387	14	367	(D)	635	2,345	4,016	6,342	16,512	85,156	(D)
Value added, adjusted.....do....	353,863	24	647	(D)	917	4,579	10,976	8,069	52,262	276,389	(D)
Value of shipments.....do....	760,161	59	2,653	(D)	3,394	11,077	32,956	21,108	131,032	557,882	(D)
Capital expenditures, new...do....	9,217	50	(D)	(D)	(D)	66	631	477	1,996	5,997	(D)
INDUSTRY 3634.—ELECTRIC HOUSEWARES AND FANS											
Establishments.....number..	312	115	30	31	40	31	20	19	21	4	1
All employees:											
Total.....do....	38,801	212	204	447	1,318	2,189	3,290	6,784	14,841	9,516	(D)
Payroll.....\$1,000..	188,257	889	955	1,975	5,403	9,878	15,203	25,528	69,016	59,410	(D)
Value added, adjusted.....do....	463,845	1,864	1,815	2,346	10,808	25,169	41,079	48,540	168,985	163,239	(D)
Value of shipments.....do....	850,281	3,851	3,394	8,474	23,955	48,310	88,870	105,570	316,318	251,539	(D)
Capital expenditures, new...do....	17,009	1,420	99	82	462	454	1,565	3,412	5,866	4,649	(D)
INDUSTRY 3635.—HOUSEHOLD VACUUM CLEANERS											
Establishments.....number..	34	7	6	8	2	4	2	1	1	3	-
All employees:											
Total.....do....	5,682	15	43	165	(D)	254	1,093	(D)	(D)	4,112	-
Payroll.....\$1,000..	35,524	56	188	863	(D)	1,034	7,458	(D)	(D)	25,925	-
Value added, adjusted.....do....	116,137	107	319	1,178	(D)	2,311	23,750	(D)	(D)	88,472	-
Value of shipments.....do....	175,357	236	788	3,509	(D)	4,800	42,568	(D)	(D)	123,456	-
Capital expenditures, new...do....	5,739	4	12	68	(D)	63	5,592	(D)	(D)	(D)	-
INDUSTRY 3636.—SEWING MACHINES											
Establishments.....number..	86	46	13	10	7	3	-	3	2	1	1
All employees:											
Total.....do....	7,646	74	87	135	205	224	-	6,921	(D)	(D)	(D)
Payroll.....\$1,000..	51,962	529	556	867	1,208	1,338	-	47,464	(D)	(D)	(D)
Value added, adjusted.....do....	98,328	873	1,062	1,352	2,065	3,117	-	89,859	(D)	(D)	(D)
Value of shipments.....do....	117,157	1,284	1,435	2,188	3,736	4,770	-	103,744	(D)	(D)	(D)
Capital expenditures, new...do....	2,568	17	14	14	17	29	-	2,477	(D)	(D)	(D)
INDUSTRY 3639.—HOUSEHOLD APPLIANCES, N.E.C.											
Establishments.....number..	112	25	8	12	23	18	7	11	6	2	-
All employees:											
Total.....do....	13,127	45	56	189	701	1,296	891	3,491	6,458	(D)	-
Payroll.....\$1,000..	81,590	243	284	1,160	4,007	7,280	5,438	18,606	44,572	(D)	-
Value added, adjusted.....do....	204,188	668	432	2,444	11,287	18,750	9,107	51,933	109,567	(D)	-
Value of shipments.....do....	435,458	1,417	985	6,030	23,330	42,546	21,977	108,850	230,323	(D)	-
Capital expenditures, new...do....	6,738	10	18	59	152	643	287	1,828	3,741	(D)	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

n.e.c. Not elsewhere classified.

<sup>1</sup>Includes capital expenditures of approximately \$200-\$500 thousand for plants under construction but not in operation.

**TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B+C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3631	Household cooking equipment.....1963..	473,453	383,784	59,736	29,933	87	536,748	383,784	152,964	72
	1958..	364,852	311,789	40,629	12,434	88	433,123	311,789	121,334	72
3632	Household refrigerators.....1963..	1,306,539	830,894	431,700	43,945	66	831,821	830,894	927	99
	1958..	1,002,302	719,684	256,148	26,470	74	729,170	719,684	9,486	98
3633	Household laundry equipment.....1963..	760,161	663,509	79,244	17,408	89	766,068	663,509	102,559	87
	1958..	738,920	654,088	66,082	18,750	91	719,574	654,088	65,486	91
3634	Electric housewares and fans.....1963..	850,281	658,289	100,951	91,041	87	809,950	658,289	151,661	81
	1958..	559,090	446,635	71,173	41,282	86	543,790	446,635	97,155	82
3635	Household vacuum cleaners.....1963..	175,357	146,312	22,628	6,417	87	183,138	146,312	36,836	80
	1958..	142,020	129,021	9,325	3,674	93	155,571	129,021	26,550	83
3636	Sewing machines.....1963..	117,157	100,720	(D)	(D)	90-95	104,713	100,720	3,993	96
	1958..	109,314	92,010	2,786	14,518	97	97,725	92,010	5,715	94
3639	Household appliances, n.e.c.....1963..	435,458	326,919	90,174	18,365	79	414,602	326,919	87,683	79
	1958..	378,758	284,117	73,883	20,758	79	341,482	284,117	57,365	83

Note: See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.  
n.e.c. Not elsewhere classified.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Household cooking equipment (SIC 3631)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Household refrigerators (SIC 3632)	Other industries
	HOUSEHOLD COOKING EQUIPMENT INDUSTRY					HOUSEHOLD REFRIGERATORS INDUSTRY			
	Total shipments and receipts of the industry.....	(X)	473,453	(X)		Total shipments and receipts of the industry.....	(X)	1,306,539	(X)
	Primary products.....	536,748	383,784	152,964		Primary products.....	831,821	830,894	927
36311	Electric household ranges and ovens and surface cooking unit equipment and parts (except small appliances).....	282,083	157,024	125,059	36321	Household refrigerators.....	687,887	687,243	644
36312	Household ovens and ranges, equipment and parts, except electric.....				36322	Home and farm freezers.....	143,132		
36310	Household cooking equipment, n.s.k.....	254,665	226,760	27,905	36320	Household refrigerators, and farm freezers, n.s.k.....	802	143,651	283
	Secondary products.....	(X)	59,736	(X)		Secondary products.....	(X)	431,700	(X)
34334	Domestic heating stoves (except electric), except parts.....	(X)	4,529	(X)	35851	Heat transfer equipment.....	(X)	148,492	(X)
36341	Electric fans, except industrial type.....	(X)	4,251	(X)	35853	Commercial refrigeration equipment.....	(X)	17,451	(X)
36393	Other household appliances and parts.....	(X)	5,645	(X)	35854	Compressors and compressor units, all refrigerants.....	(X)	53,769	(X)
	Other secondary products.....	(X)	45,311	(X)	35857	Other refrigeration and air-conditioning equipment, including soda fountain and beer dispensing equipment.....	(X)	10,118	(X)
34332	Warm air furnances (except floor and wall) except parts..	(X)	(over 2)	(X)	36311	Electric household ranges and ovens and surface cooking unit equipment and parts, (except small appliances).....	(X)	(over 2)	(X)
34990	Fabricated metal products, n.e.c.	(X)	(2-5)	(X)	36393	Other household appliances and parts.....	(X)	27,590	(X)
35851	Heat transfer equipment.....	(X)	(5-10)	(X)	36331	Household mechanical washing machines, dryers, and washer-dryer combination.....	(X)	(50-100)	(X)
35854	Compressors and compressor units, all refrigerants.....	(X)	(over 2)	(X)	36344	Parts and attachments for small household electric appliances..	(X)	(over 2)	(X)
35891	Commercial cooking and food warming equipment.....	(X)	(2-5)	(X)	36350	Household vacuum cleaners, including parts and attachments	(X)	(over 2)	(X)
36343	Other small household electric appliances.....	(X)	(2-5)	(X)	36391	Household water heaters, electric.....	(X)	(2-5)	(X)
39410	Games and toys, except dolls and children's vehicles.....	(X)	(over 2)	(X)	37175	Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers.....	(X)	(over 2)	(X)
	Miscellaneous receipts.....	(X)	29,933	(X)		Miscellaneous receipts.....	(X)	43,945	(X)
	Contract work.....	(X)	2,879	(X)		Resales.....	(X)	38,645	(X)
	Resales.....	(X)	16,953	(X)		Contract work and other miscellaneous receipts.....	(X)	5,300	(X)
	Other.....	(X)	10,101	(X)			All industries	Household laundry equipment (SIC 3633)	Other industries
36311	Listing of other industries with over \$2 million shipments of each primary product class:					HOUSEHOLD LAUNDRY EQUIPMENT INDUSTRY			
	3522 Farm machinery and equipment.....	(X)	(X)	(over 2)		Total shipments and receipts of the industry.....	(X)	760,161	(X)
	3629 Electrical industrial goods, n.e.c.....	(X)	(X)	(over 2)		Primary products.....	766,068	663,509	102,559
	3632 Household refrigerators....	(X)	(X)	(over 2)		Household mechanical washing machines, dryers, and washer-dryer combination.....	698,765	601,979	96,786
	3633 Household laundry equipment.....	(X)	(X)	(over 2)					
	3634 Electric housewares and fans.....	(X)	(X)	(over 2)					
	3729 Aircraft equipment, n.e.c..	(X)	(X)	(2-5)					
36312	3433 Heating equipment, except electric.....	(X)	(X)	10,004	36331				
	3585 Refrigeration machinery....	(X)	(X)	(2-5)					
	3633 Household laundry equipment.....	(X)	(X)	(2-5)					

See footnotes at end of table.

**TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:**  
**1963—Continued**

Prod. class code	Class of products and miscellaneous receipts	All industries	Household laundry equipment (SIC 3633)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Electric housewares and fans (SIC 3634)	Other industries
	<b>HOUSEHOLD LAUNDRY EQUIPMENT INDUSTRY—Continued</b>					<b>ELECTRIC HOUSEWARES AND FANS INDUSTRY—Continued</b>			
36332	Primary products—Continued					Secondary products—Continued.....			
	Other household laundry equipment and parts.....	66,839	61,066	5,773		Other secondary products:			
36330	Household laundry equipment, n.s.k.....	464	464	-	33610	Aluminum and aluminum-base alloy castings.....	(X)	(over 2)	(X)
	Secondary products.....	(X)	79,244	(X)	34293	Vacuum and insulated bottles, jugs and chests.....	(X)	(5-10)	(X)
35820	Commercial laundry, dry cleaning and pressing machinery and equipment.....	(X)	7,017	(X)	34320	Plumbing fixture fittings and trim (brass goods).....	(X)	(2-5)	(X)
	Other secondary products.....	(X)	72,227	(X)	34618	Other stamped and pressed metal end products.....	(X)	(over 2)	(X)
30310	Reclaimed rubber.....	(X)	(over 2)	(X)	35227	Lawn mowers and parts.....	(X)	(over 2)	(X)
36311	Electrical household ranges and ovens and surface cooking unit equipment and parts (except small appliances).....	(X)	(over 2)	(X)	36216	Parts and supplies for motors, generators, and motor generator sets, except land transportation.....	(X)	(over 2)	(X)
36312	Household ovens and ranges, equipment and parts, except electric.....	(X)	(2-5)	(X)	36311	Electric household ranges and ovens and surface cooking unit equipment and parts (except small appliances).....	(X)	(over 2)	(X)
36343	Other small household electric appliances.....	(X)	(over 2)	(X)	36350	Household vacuum cleaners, including parts and attachments..	(X)	(2-5)	(X)
36344	Parts and attachments for small household electric appliances.....	(X)	(over 2)	(X)	36511	Household and automobile radios, and radio-phonograph combinations.....	(X)	(over 2)	(X)
	Miscellaneous receipts.....	(X)	17,408	(X)	36623	Intercommunication equipment (except telephone and telegraph) and electric alarm and signal systems and devices.....	(X)	(5-10)	(X)
	Resales.....	(X)	14,870	(X)	36992	Lamp bulb components (except glass bulbs) and electrical products.....	(X)	(2-5)	(X)
	Contract work and other miscellaneous receipts.....	(X)	2,538	(X)	37175	Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers.....	(X)	(over 2)	(X)
	Listing of other industries with over \$2 million shipments of each primary product class:				37292	Guided missile components and subassemblies, n.e.c.....	(X)	(2-5)	(X)
36331	3632 Household refrigerators....	(X)	(X)	(50-100)	38711	Clocks.....	(X)	(over 2)	(X)
	3729 Aircraft equipment, n.e.c..	(X)	(X)	(over 2)	39993	Other miscellaneous fabricated products.....	(X)	(5-10)	(X)
		All industries	Electric housewares and fans (SIC 3634)	Other industries		Miscellaneous receipts.....	(X)	91,041	(X)
						Contract work.....	(X)	996	(X)
						Resales.....	(X)	74,382	(X)
						Other miscellaneous receipts.....	(X)	15,663	(X)
	<b>ELECTRIC HOUSEWARES AND FANS INDUSTRY</b>					Listing of other industries with over \$2 million shipments of each primary product class:			
	Total shipments and receipts of the industry.....	(X)	850,281	(X)	36341	2514 Metal household furniture...	(X)	(X)	(over 2)
	Primary products.....	809,950	658,289	151,661		3581 Automatic vending machines..	(X)	(X)	(over 2)
36341	Electric fans, except industrial type.....	101,972	79,609	22,363		3621 Motors and generators.....	(X)	(X)	(2-5)
36342	Electric razors and dry shavers..	53,390	53,390	(1)		3631 Household cooking equipment.	(X)	(X)	4,251
36343	Other small household electric appliances.....	562,647	471,333	91,314	36343	3751 Motorcycles, bicycles, and parts.....	(X)	(X)	(over 2)
36344	Parts and attachments for small household electric appliances...	81,521	43,740	37,781		3229 Pressed and blown glass, n.e.c.....	(X)	(X)	(over 2)
36340	Electric housewares and fans, n.s.k.....	10,420	10,217	203		3461 Metal stampings.....	(X)	(X)	31,133
	Secondary products.....	(X)	100,951	(X)		3535 Conveyors.....	(X)	(X)	(over 2)
35482	Power driven hand tools, including parts and attachments.....	(X)	2,524	(X)		3581 Automatic vending machines..	(X)	(X)	(2-5)
35891	Commercial cooking and food warming equipment.....	(X)	2,981	(X)		3585 Refrigeration machinery.....	(X)	(X)	3,197
36393	Other household appliances and parts.....	(X)	3,107	(X)		3621 Motors and generators.....	(X)	(X)	3,124
						3631 Household cooking equipment.	(X)	(X)	(2-5)
						3633 Household laundry equipment.	(X)	(X)	(over 2)
						3717 Motor vehicles and parts....	(X)	(X)	(over 2)
						3871 Watches and clocks.....	(X)	(X)	(5-10)
					36344	3629 Electric industrial goods, n.e.c.....	(X)	(X)	(over 2)
						3632 Household refrigerators.....	(X)	(X)	(over 2)

See footnotes at end of table.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Household vacuum cleaners (SIC 3635)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Household appliances, n.e.c. (SIC 3639)	Other industries
HOUSEHOLD VACUUM CLEANERS INDUSTRY					HOUSEHOLD APPLIANCES, N.E.C. INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	175,357	(X)		Total shipments and receipts of the industry.....	(X)	435,458	(X)
36350	Household vacuum cleaners.....	183,138	146,312	36,836	36391	Primary products.....	414,602	326,919	87,683
	Secondary products.....	(X)	22,628	(X)	36392	Household water heaters, electric.	61,408	52,899	8,509
36393	Other household appliances and parts.....	(X)	(over 2)	(X)	36392	Household water heaters, except electric.....	142,171	131,870	10,301
	Other secondary products.....	(X)	(over 2)	(X)	36393	Other household appliances and parts.....	208,149	139,601	68,548
	Miscellaneous receipts.....	(X)	6,417	(X)	36390	Household appliances, n.e.c., n.s.k.....	2,874	2,549	325
	Resales.....	(X)	4,638	(X)		Secondary products, total.....	(X)	90,174	(X)
	Contract work and other miscellaneous receipts.....	(X)	1,779	(X)	34336	Other heating equipment (except electric) and parts for non-electric heating equipment.....	(X)	13,248	(X)
	Listing of other industries with over \$2 million shipments of each primary product class:				35892	Service-industry machines, and parts.....	(X)	3,792	(X)
36350	3581 Automatic vending machines.	(X)	(X)	(over 2)	34310	Other secondary products.....	(X)	73,134	(X)
	3632 Household refrigerators....	(X)	(X)	(over 2)	34332	Metal plumbing fixtures.....	(X)	(over 2)	(X)
	3634 Electric housewares and fans.....	(X)	(X)	(2-5)	3443	Warm air furnaces (except floor and wall), except parts.....	(X)	(5-10)	(X)
	3639 Household appliances, n.e.c.....	(X)	(X)	(10-20)	34912	Other sheet metal work.....	(X)	(over 2)	(X)
	3717 Motor vehicles and parts....	(X)	(X)	(over 2)		Steel shipping barrels and drums (over 12 gallon capacity), except beer barrels.....	(X)	(over 2)	(X)
		All industries	Sewing machines (SIC 3636)	Other industries	34990	Fabricated metal products, n.e.c.	(X)	(5-10)	(X)
					35851	Heat transfer equipment.....	(X)	(over 2)	(X)
					36350	Household vacuum cleaners, including parts and attachments..	(X)	(10-20)	(X)
					39932	Nonelectric signs and advertising displays.....	(X)	(2-5)	(X)
						Miscellaneous receipts, total.....	(X)	18,365	(X)
						Contract and commission work.....	(X)	131	(X)
						Sales of products bought and resold.....	(X)	13,597	(X)
						Other miscellaneous receipts.....	(X)	4,637	(X)
						Listing of other industries shipping \$2 million or more of primary product classes:			
					36391	3632 Household refrigerators....	(X)	(X)	(2-5)
					36392	3433 Heating equipment, except electric.....	(X)	(X)	6,014
36360	Sewing machines and parts, except cases and cabinets sold separately.....	104,713	100,720	3,993	36393	3443 Boiler shop products.....	(X)	(X)	(2-5)
	Secondary products.....	(X)	(D)	(X)		3432 Plumbing fittings, brass goods.....	(X)	(X)	(over 2)
	Miscellaneous receipts.....	(X)	(D)	(X)		3581 Automatic vending machines..	(X)	(X)	(over 2)
						3631 Household cooking equipment.	(X)	(X)	5,645
						3632 Household refrigerators.....	(X)	(X)	27,590
						3435 Household vacuum cleaners...	(X)	(X)	(over 2)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Value of electric razors and dry shavers shipped by other industries is included with shipments of the electric housewares and fans industry to avoid disclosure of operations of individual companies.

**TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958**

Product code	Product	Total shipments including interplant transfers					
		1963		1958			
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)		
3631- --	HOUSEHOLD COOKING EQUIPMENT, TOTAL.....	(X)	536,748	(X)	433,123		
36311 --	Electric household ranges and ovens; surface cooking equipment and parts, excluding small appliances.....	(X)	282,083	(X)	203,748		
	Electric ranges, over 2-1/2 kw, excluding range-refrigerator combinations:						
	Free standing ranges:						
36311 11	22" and under in width (including apartment-house type).....	79,943	6,595	454,000	55,963		
36311 21	Over 22" up to and including 32" in width:						
36311 23	Low oven.....	521,109	61,228				
	High oven (or high and low oven).....	171,598	36,456	335,000	52,896		
36311 31	Over 32" up to and including 38" width:						
36311 33	Low oven.....	55,399	7,060				
	High oven (or high and low oven).....						
36311 43	Over 38" in width:						
36311 45	Low oven.....	189,410	27,693	(X)	194,889		
	High oven (or high and low oven).....	38,132	11,844				
	Other than free standing:						
	Built-in ranges:						
	Regular built-in or stack-on oven-broiler units:						
36311 53	Single oven.....	393,010	34,127	(X)	194,889		
36311 55	Double oven.....	80,671	10,746				
36311 61	Cooking tops.....	399,027	21,800				
36311 71	Drop-in ranges.....	276,597	32,441	(NA)	(NA)		
36311 73	Other electric ranges not listed above.....			(X)	(NA)		
36311 81	Parts and accessories for household electric ranges and ovens, including such items as burners, rotisseries, oven racks, broilers pans, etc. (sold separately).....	(X)	32,093	(NA)	(1)		
36312 --	Household ovens and ranges, equipment, and parts (except electric).....	(X)	253,568	(X)	229,375		
36312 10	Domestic cooking appliances, except electric:						
	Reported in census of manufactures.....	(X)	219,719	(X)	199,192		
	Reported on Annual Form MA-34N <sup>2</sup> .....	(X)	219,497	(X)	196,863		
36312 11	Barbecuers, grills, and braziers for outdoor cooking.....	3,710,680	23,630	(X)	30,183		
36312 98	Other household cooking equipment (except electric) and parts for cooking equipment sold separately.....	(X)	9,178				
36312 00	Domestic cooking appliances, n.s.k.....	(X)	1,041				
36310 00	Household cooking equipment, n.s.k.....	(X)	1,097	-	-		
	Product	1963		1958			
		Production for all purposes (number of units)	Total shipments including interplant transfers		Production for all purposes (number of units)	Total shipments including interplant transfers	
			Quantity (number of units)	Value (\$1,000)		Quantity (number of units)	Value (\$1,000)
3632- --	HOUSEHOLD REFRIGERATORS AND HOME AND FARM FREEZERS, TOTAL.....	(X)	(X)	831,821	(X)	(X)	729,170
36321 --	Household refrigerators.....	4,220,640	4,098,454	687,887	3,037,780	3,153,256	551,164
	Household mechanical refrigerators (including combination refrigerator freezers):						
	Complete units:						
36321 07	6.4 cubic feet and under.....	40,761	45,188	3,999	31,234	28,110	3,690
36321 13	6.5 to 7.4 cubic feet.....				356,334	378,738	42,852
36321 14	7.5 to 8.4 cubic feet.....				254,230	236,074	27,772
36321 15	8.5 to 9.4 cubic feet.....				269,010	265,833	35,635
36321 16	9.5 to 10.4 cubic feet.....	429,564	413,254	44,853			
	10.5 to 11.4 cubic feet:						
36321 17	Single exterior door.....	133,331	122,691	13,075	743,908	781,370	113,146
	Two exterior doors or door and drawer.....	73,091	78,723	12,164			
	11.5 to 12.4 cubic feet:						
36321 23	Single exterior door.....	641,303	633,166	76,898	687,415	716,968	144,116
36321 24	Two exterior doors or door and drawer.....	281,269	254,896	34,526			

See footnotes at end of table.



TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	1963			1958			
		Production for all purposes (number of units)	Total shipments, including interplant transfers		Production for all purposes (number of units)	Total shipments, including interplant transfers		
			Quantity (number of units)	Value (\$1,000)		Quantity (number of units)	Value (\$1,000)	
3632- --	HOUSEHOLD REFRIGERATORS AND HOME AND FARM FREEZERS—Continued							
36321 --	Household refrigerators—Continued							
	Household mechanical refrigerators (including combination refrigerator freezers)—Continued							
	Complete units—Continued							
	12.5 to 13.4 cubic feet:							
36321 25	Single exterior door.....	146,881	145,113	22,008	269,812	289,861	57,744	
36321 26	Two exterior doors or door and drawer.....	621,525	630,505	105,038				
	13.5 to 14.4 cubic feet:							
36321 27	Single exterior door.....	1,234,949	1,175,378	226,451	410,458	434,721	120,175	
36321 28	Two exterior doors or door and drawer.....							
	14.5 to 15.4 cubic feet:							
36321 31	Single exterior door.....	147,099	151,664	35,771				
36321 32	Two exterior doors or door and drawer.....							
	15.5 to 16.4 cubic feet:							
36321 34	Single exterior door.....	403,609	378,497	102,572				
36321 35	Two exterior doors or door and drawer.....							
	16.5 cubic feet and over:							
36321 37	Single exterior door.....	20,244	22,392	5,555				
36321 38	Two exterior doors or door and drawer.....							
36321 41	Range-refrigerator and/or sink combinations.....				15,379	21,581	6,034	
36322 --	Home and farm freezers.....	1,047,663	1,006,590	143,132	955,925	996,973	178,006	
	Home and farm freezers, complete units for freezing and/or storing foods:							
	8.4 cubic feet and under:							
36322 11	Upright type.....	16,768	18,369	1,714	20,636	19,704	2,621	
36322 12	Chest type.....							
	8.5 to 10.4 cubic feet:							
36322 14	Upright type.....	56,570	49,540	5,788	59,603	60,968	7,682	
36322 15	Chest type.....							
	10.5 to 12.4 cubic feet:							
36322 17	Upright type.....	96,908	96,207	12,925	133,427	137,634	20,235	
36322 18	Chest type.....							
	12.5 to 14.4 cubic feet:							
36322 21	Upright type.....	143,736	138,233	18,771	159,306	153,774	26,428	
36322 22	Chest type.....							
	14.5 to 15.4 cubic feet:							
36322 24	Upright type.....	139,829	128,141	16,571	136,750	144,356	24,131	
36322 25	Chest type.....	84,798	87,851	10,615				
	15.5 to 17.4 cubic feet:							
36322 27	Upright type.....	123,738	118,868	18,715	446,203	480,537	96,909	
36322 28	Chest type.....	103,887	102,339	13,652				
	17.5 to 19.4 cubic feet:							
36322 31	Upright type.....	51,136	50,711	9,245				
36322 32	Chest type.....	19,504	17,518	2,400				
	19.5 to 21.4 cubic feet:							
36322 34	Upright type.....	47,961	42,728	7,421				
36322 35	Chest type.....	51,821	51,694	8,347				
	21.5 cubic feet and over:							
36322 37	Upright type.....	32,522	31,461	5,746				
36322 38	Chest type.....	78,485	72,930	11,222				
36320 00	Household refrigerators and home and farm freezers, n.s.k.....	(X)	(X)	802	(X)	(X)	-	

See footnotes at end of table.

TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3633- --	HOUSEHOLD LAUNDRY EQUIPMENT, TOTAL.....	(X)	766,068	(X)	719,574
36331 --	Household mechanical washing machines, dryers, and washer-dryer-combinations.....	(X)	698,765	(X)	672,213
	Washing machines, mechanical, including those with dishwasher attachments (standard size, electrically driven):				
36331 31	Fully automatic.....	3,528,889	475,358	2,821,000	407,832
36331 33	Semiautomatic.....				
36331 36	Nonautomatic, wringer type and spinner type.....				
36331 39	All other, including gasoline-driven and small size.....	667,367 (X)	356,749	989,000 (X)	82,880 1,440
	Dryers, mechanical:				
36331 51	Gas.....	550,953	58,185	393,000	46,791
36331 55	Electric.....	1,079,294	101,958	864,000	92,928
	Washer-dryer combinations (in one cabinet):				
36331 81	Electric.....	31,101	6,515	164,000	40,342
36331 85	Gas.....				
36332 --	Other household laundry equipment and parts.....	(X)	66,839	(X)	46,498
36332 71	Other household laundry equipment including wringers.....	(X)	4,747	(X)	47,122
36332 98	Parts, accessories, and attachments for household laundry equipment, sold separately.....	(X)	62,092	(X)	39,376
36330 00	Household laundry equipment, n.s.k.....	(X)	464	(X)	863
	Product	Value of shipments including interplant transfers (\$1,000)			
		1963		1958	
3634- --	ELECTRICAL HOUSEWARES AND FANS, TOTAL.....			809,950	543,790
36341 10	Fans, electric (except industrial type):				
	As reported in the census of manufactures.....			101,972	77,053
	As reported on Census Annual Form MA-36E <sup>5</sup> .....			102,112	(X)
36342 10	Electric razors and dry shavers:				
	As reported in the census of manufactures.....			53,390	54,091
	As reported on Census Annual Form MA-36E <sup>5</sup> .....			53,376	(X)
36343 10	Other small household electric appliances:				
	As reported in the census of manufactures.....			562,647	336,160
	As reported on Census Annual Form MA-36E <sup>5</sup> .....			553,063	(X)
36344 --	Parts and attachments.....			81,521	55,858
36344 11	Parts and accessories for electric housewares and fans.....			74,632	51,549
36344 31	Electric controls for frying pans and for other household cooking appliances, shipped separately....			6,889	4,309
36340 00	Electrical housewares and fans, n.s.k.....			10,420	20,628
	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3635- --	VACUUM CLEANERS, HOUSEHOLD.....	(X)	183,138	(X)	155,571
	Household vacuum cleaners, including parts and attachments:				
36350 11	Hand type.....	140,716	3,321	89,000	1,439
36350 31	Upright, tank, canister, and other general purpose household types.....	3,798,075	151,641	3,144,000	139,551
36350 51	Attachments or cleaning tools, sold separately.....	(X)	16,566	(X)	
36350 71	Parts for household type vacuum cleaners.....	(X)	9,283	(X)	
36350 99	Household vacuum cleaners, n.s.k.....	(X)	2,327	(X)	702
3636- --	SEWING MACHINES AND PARTS, EXCEPT CASES AND CABINETS SOLD SEPARATELY, TOTAL.....	(X)	104,713	(X)	97,725
	Household sewing machines, including heads for sale with cabinets or cases, and heads for sale separately:				
36360 11	Electric cabinet.....	(D)	(D)	365,000	27,821
36360 31	Electric portable.....	(D)	(D)		
36360 71	Industrial sewing machines (except shoe sole stitching machines).....	121,197	47,708	75,000	25,874
36360 81	Sewing machine parts, and attachment for household and industrial sewing machines (except cases and cabinets).....	(X)	653,943	(X)	43,091
36360 00	Sewing machines, n.s.k.....	(X)	3,062	(X)	939

See footnotes at end of table.



TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3639- --	HOUSEHOLD APPLIANCES, N.E.C., TOTAL.....		(X)	414,602	(X)	341,842
36391 --	Water heaters, electric.....		(X)	61,408	(X)	56,849
	Electric water heaters (for permanent installation):					
	Storage type:					
36391 11	34 gallons and under.....	No. of units....	399,655	13,439	401,000	14,898
36391 12	35-44 gallons.....	..do.....	320,230	14,358	508,000	29,036
36391 14	45-54 gallons.....	..do.....	360,058	17,407		
36391 15	55 gallons and over.....	..do.....	131,111	8,044	113,000	8,196
36391 98	Other types, including circulating and portable.....		(X)	5,976	(X)	3,705
36391 00	Electric water heaters, n.s.k.....		(X)	2,184	(X)	1,014
	Water heaters, except electric:					
36392 00	Reported in census of manufactures.....		(X)	142,171	(X)	153,538
	Reported on Annual Form MA-34N <sup>7</sup> .....		(X)	143,318	(X)	162,178
36393 --	Other household type appliances and parts.....		(X)	208,149	(X)	131,095
	Dishwashing machines:					
36393 12	Portable type.....	No. of units....	287,928	37,877	397,392	54,803
36393 14	Undercounter and all other types.....	..do.....	609,447	83,922		
36393 31	Floor waxing and polishing machines.....	..do.....	1,392,865	29,363	724,455	19,489
36393 71	Food waste disposers (all sizes).....	..do.....	1,239,326	34,376	741,057	26,772
36393 81	Other household service machines.....		(X)	13,614	(X)	24,573
36393 91	Parts and accessories for electric water heaters.....		(X)	8,510	(X)	5,458
36393 00	Other household type appliances and parts, n.s.k.....		(X)	487	(X)	-
36390 00	Household appliances, n.e.c., n.s.k.....		(X)	2,874	(X)	-

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Product code 3631181 is included with product codes 3631153, 3631155, and 3631161 in 1958.

<sup>2</sup>See table 6A-2 for more detailed product data.

<sup>3</sup>In 1963 the value for product code 3633139 is between \$200 and \$400 thousand.

<sup>4</sup>For 1958, includes data for ironers, mechanical, including table, cabinet, and portable. The 1963 code for this product line is 3634310.

<sup>5</sup>See table 6A-3 for more detailed product data.

<sup>6</sup>Includes the value of shipments of household sewing machines.

<sup>7</sup>See table 6A-4 for product detail.

**TABLE 6A-2. Domestic Cooking Appliances (Except Electric)—Quantity and Value of Shipments: 1963 and 1958**

Product code	Product	Shipments			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
36312 pt.	DOMESTIC-COOKING APPLIANCES (EXCEPT ELECTRIC).....	(X)	219,497	(X)	196,863
	Cooking stoves and ranges:				
	Gas:				
	Standard type, free standing:				
36312 11	Over 32" cooking top and oven.....	461,696	49,146	1,546,682	146,057
36312 13	Over 24" to 32" cooking top and oven.....	747,197	79,224		
36312 15	Apartment ranges (24" cooking top and under).....	316,118	20,286		
36312 17	Standard type, for built-in installation (built-in or stack-on over-broiler unit).....	331,674	32,030	234,232	35,542
36312 19	Surface cooking tops, one or more burners (quantity in number of top units).....	324,658	14,056		
	Nonstandard types:				
36312 21	Wall hung.....	108,257	11,837		
36312 23	Slide-in or drop-in (including as one unit or drop-in cooking surface with a slide-in oven).....				
	Bungalow ranges:				
36312 25	Gas and coal.....	3,360	642	4,329	594
36312 27	All other.....	14,731	2,315	35,832	5,121
	Coal and wood:				
36312 35	Ranges.....	19,020	1,111	29,974	1,950
36312 37	Cook stoves.....	13,351	386	14,734	361
	Combination ranges (including ranges equipped with conversion burners):				
36312 45	Gas and oil.....	735	111	1,452	281
36312 47	Gas and coal.....				
36312 49	All other (including ranges equipped with conversion burners).....				
36312 24	Gas hot plates.....	62,413	415	51,976	352
	Kerosene, gasoline, fuel, oil, and miscellaneous:				
36312 53	Kerosene ranges.....	767,860	7,938	(D)	(D)
36312 55	Kerosene cookstoves.....			(D)	(D)
36312 59	Miscellaneous cooking appliances <sup>1</sup> .....			749,244	6,110

Source: Current Industrial Reports Series M34N "Heating and Cooking Equipment, Except Electric."

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>Includes needle valve, gasoline pressure, camp stoves, cabin stoves, pocket stoves, etc.



TABLE 6A-3. Electric Housewares and Fans—Quantity and Value of Shipments:  
1963 and 1958

Product code	Product	Shipments			
		1963		1958	
		Quantity (1,000 units)	Value (\$1,000)	Quantity (1,000 units)	Value (\$1,000)
36341 --	Electric fans (except industrial type), total.....	(X)	98,897	(X)	77,053
	Desk and wall bracket (all sizes):				
36341 37	Oscillating.....	622	6,576	960	11,734
36341 51	Nonoscillating.....	327	2,330	628	7,105
	Window-type propeller fans (household):				
	Permanent type (reversible and nonreversible):				
36341 75	20 inch.....	558	10,373	494	9,635
36341 77	Other than 20 inch.....	483	4,897	113	2,407
36341 81	Portable (suitcase type), all sizes.....	1,387	18,944	556	12,676
36341 83	Roll-abouts (mounted on portable stand), all sizes.....	351	7,407	251	7,035
	Household and kitchen ventilating and exhaust fans:				
36341 85	Electric range and oven hoods (ducted and nonducted).....	1,690	29,807	968	18,160
36341 87	Other household and kitchen ventilating and exhaust fans.....	1,162	14,432		
36341 98	Other household electric fans (including high pedestal fans and floor or hassock type fans).....	258	4,131	249	6,121
36341 00	Electric fans (except industrial type) n.s.k.....	-	-	(X)	2,180
36342 --	Electric razors and dry shavers, total.....	3,839	53,376	4,855	54,091
36342 13	Men's.....	3,839	53,376	4,855	54,091
36342 15	Ladies'.....				
36343 --	Small household electric appliances (except water heaters), total.....	(X)	561,887	(X)	336,160
36343 12	Rotisseries and broilers (table).....	1,178	10,654	316	9,672
36343 14	Automatic coffeemakers (complete units; vacuum, percolator, and urn).....	5,758	51,843	13,406	136,882
36343 23	Deep fat fryers (excluding covers and controls shipped separately).....	503	3,543	2358	23,429
36343 29	Hot plates and disc stoves (1,650 watts or less) (except built-in-units).....	792	3,298	771	4,689
36343 36	Toasters, automatic.....	3,294	33,342	3,089	30,973
36343 39	Waffle irons, sandwich grills, griddles, and combinations.....	1,084	12,311	848	9,416
36343 42	Frying pans (skillets) (excluding covers and controls shipped separately).....	2,009	23,445	3,227	31,939
	Air space heaters (portable room heaters only): <sup>3</sup>				
36343 43	Fan forced type.....	1,601	15,893	949	11,392
36343 44	Other types (including convector, radiant, and convector-radiant).....	551	6,579	264	5,489
	Air space heaters for fixed or permanent installations (except warm air furnaces and unit heaters): <sup>3</sup>				
36343 45	Baseboard (excluding glass panel type).....	(X)	20,748	(X)	9,703
36343 47	Other.....	(X)	8,794		
36343 48	Corn poppers.....	1,036	3,068	(X)	413,363
36343 49	Other household electric cooking and heating appliances (immersion heaters, faucet attachment water heaters, steam radiators, pressure cookers, casseroles, nonautomatic toasters, nonautomatic coffeemakers, automatic saucepans, food warming trays, food warmers, etc.) (excluding covers and controls shipped separately).....	(X)	23,418		
	Standard household electric irons:				
36343 52	Steam and spray.....	6,773	59,090	3,535	34,773
36343 61	Other than steam, automatic type (thermostat controlled heat).....	1,588	8,661	1,347	6,717
36343 65	Travel irons.....	443	3,087	303	1,904
36343 69	Other electric irons (tailors', milliners', boudoir, nonautomatic standard household, etc.).....				
	Household food preparation appliances:				
	Food mixers (including standard attachments sold together with mixers):				
36343 71	Hand (portable).....	2,624	22,457	1,767	17,666
36343 75	Stand.....	710	14,994	819	15,982
36343 76	Blenders (liquefiers).....	1,148	19,694	430	7,953
36343 77	Ice crushers.....	45	502	(X)	6,826
36343 78	Other household food preparation appliances (including drink mixers, whippers, juicers, grinders, slicers, and choppers).....	(X)	10,673		
	Miscellaneous electric appliances:				
36343 83	Electric blankets.....	5,217	44,721	2,420	31,601
36343 85	Other electric bed coverings (including sheets, mattress covers, and comforters).....				
36343 87	Heating pads (including foot warmers).....	3,022	7,757	1,899	6,289

See footnotes at end of table.

TABLE 6A-3. **Electric Housewares and Fans—Quantity and Value of Shipments:**  
1963 and 1958—Continued

Product code	Product	Shipments			
		1963		1958	
		Quantity (1,000 units)	Value (\$1,000)	Quantity (1,000 units)	Value (\$1,000)
36343 --	Small household electric appliances (except water heaters)—Continued				
	Miscellaneous electric appliances—Continued				
36343 24	Oven and roasters (with or without broiler attachments).....	301	3,833		
36343 91	Electric tooth brushes.....	1,239	11,247		
36343 92	Air purifiers (portable).....	( <sup>5</sup> )	( <sup>5</sup> )		
36343 93	Can openers (single-purpose units; combination purpose units such as can opener combination with knife sharpener, etc.).....	3,189	25,401		
	Hair dryers:				
36343 94	With bonnets.....	7,565	84,589	(X)	30,232
36343 95	Without bonnets.....	50	251		
36343 96	Humidifiers (portable).....	382	3,809		
36343 97	Knife sharpeners.....	319	1,967		
36343 98	Other electric appliances (curling irons, vibrators, hand and face dryers, etc.).....	(X)	22,218		
36343 00	Small household appliances, n.s.k.....	-	-	(X)	9,270

Source: Current Industrial Reports Series M36E "Electric Housewares and Fans."

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Includes nonautomatic coffeemakers, separate data for which are not available.

<sup>2</sup>Includes automatic saucepans, separate data for which are not available.

<sup>3</sup>Electric warm-air furnaces and unit heaters are included in industry 3699 Electrical Machinery, N.E.C.

<sup>4</sup>Excludes nonautomatic coffeemakers and automatic saucepans.

<sup>5</sup>Portable air purifiers are included with "Other electric appliances" (3634398) in order to avoid disclosing figures of individual companies.

TABLE 6A-4. **Water Heaters (Except Electric)—Quantity and Value of Shipments:**  
1963 and 1958

Product code	Product	Shipments			
		1963		1958	
		Number of units	Value (\$1,000)	Number of units	Value (\$1,000)
36392 pt.	WATER HEATERS (EXCEPT ELECTRIC), TOTAL.....	(X)	143,318	(X)	162,178
	Water heaters:				
	Direct-fired water heaters:				
	Gas:				
36392 11	Underfired storage.....	3,041,876	127,537	2,874,422	142,905
36392 13	Sidearm.....	18,565	918	39,883	1,841
	Oil:				
36392 23	Underfired storage.....	18,817	2,598	30,658	3,289
36392 25	Sidearm.....			826	23
36392 31, 33	Coal and wood tank heaters, cast-iron and steel.....	520	47	3,295	134
	Indirect water heaters:				
	Storage, cast or coil-type (less tank):				
36392 41	20 G.P.H. and less.....	17,489	558	4,620	43
36392 43	21 G.P.H. and over.....			23,898	1,325
36392 51	Tanks (with or without generator coils).....	2,902	2,372	4,400	3,015
36392 55	Instantaneous.....	180,453	8,544	134,927	8,831
36392 53	Generator coils and tank collar (sold without tank).....	3,968	744	5,416	772

Source: Current Industrial Reports Series M34N "Heating and Cooking Equipment, Except Electric."

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.



TABLE 6B. **Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)		Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value			Production	Unit value
363--	Household appliances.....1963..	150	87	363--	Household appliances—Continued		
	1958..	110	98				
3631-	Household cooking equipment.....1963..	114	104	3634-	Electrical housewares and fans <sup>2</sup> .....1963..	189	86
	1958..	90	107		1958..	108	101
36311	Electric household ranges and ovens surface cooking equipment and parts, excluding small appliances..1963..	118	104	36341	Fans, electric (except industrial type).....1963..	135	86
	1958..	86	103		1958..	85	103
36312	Household ovens and ranges, equipment, and parts (except electric)..1963..	112	103	36342	Electric razors and dry shavers.....1963..	97	102
	1958..	95	110		1958..	123	82
3632-	Household refrigerators and home and farm freezers.....1963..	156	72	36343	Other small household electric appliances.....1963..	213	86
	1958..	112	87		1958..	103	104
36321	Household refrigerators.....1963..	166	73	3635-	Vacuum cleaners, household.....1963..	145	93
	1958..	110	88		1958..	119	96
36322	Home and farm freezers.....1963..	159	68	3636-	Sewing machines.....1963..	76	128
	1958..	120	86		1958..	78	117
3633-	Household laundry equipment.....1963..	134	96	3639-	Household appliances, n.e.c.....1963..	195	83
	1958..	117	103		1958..	140	95
36331	Household mechanical washing machines, dryers, and washer-dryer-combinations <sup>1</sup> .....1963..	132	96	36391	Water heater, electric.....1963..	168	76
	1958..	118	103		1958..	130	90
				36392	Water heaters, except electric.....1963..	122	85
					1958..	117	100
				36393	Other household type appliances and parts.....1963..	360	79
					1958..	204	87

n.e.c. Not elsewhere classified.

<sup>1</sup>Adjusted to include product class 36332, Other household laundry equipment and parts.

<sup>2</sup>Adjusted to include product class 36344, Parts and attachments.

TABLE 6C. Product Classes—Value Shipped by All Manufacturing Establishments:  
1947, 1954, 1958 to 1963

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3631-	Household cooking equipment.....	536,748	484,785	467,074	468,551	501,453	433,123	360,069	399,373
36311	Electric household ranges and ovens and surface cooking unit equipment and parts (except small appliances).....	282,083	260,671	242,276	240,313	255,913	203,748	164,110	132,235
36312	Household ovens and ranges, equipment and parts, except electric.....	253,568	224,114	224,798	228,238	245,540	229,375	195,956	267,138
36310	Household cooking equipment, n.s.k.....	1,097							
3632-	Household refrigerators.....	831,821	777,882	754,360	805,040	881,266	729,170	745,444	622,197
36321	Household refrigerators.....	687,887	631,156	612,612	624,398	676,616	551,164	573,074	521,572
36322	Home and farm freezers.....	143,132	146,726	141,748	180,642	204,650	178,006	172,370	100,625
36320	Household refrigerators, n.s.k.....	802							
3633-	Household laundry equipment.....	766,068	692,565	660,376	695,007	802,453	719,574	596,349	433,851
36331	Household mechanical washing machines, dryers, and washer-dryer combinations.....	698,765	645,301	613,360	650,497	755,785	672,213	533,711	352,131
36332	Other household laundry equipment and parts	66,839	45,727	45,486	42,960	45,764	46,498	62,638	81,720
36330	Household laundry equipment, n.s.k.....	464	(1,537)	(1,530)	(1,550)	(904)	863	-	-
3634-	Electric housewares and fans.....	<sup>2</sup> 800,492	<sup>2</sup> 718,657	<sup>2</sup> 635,113	598,323	581,951	543,790	563,931	(NA)
36341	Electric fans, except industrial type.....	<sup>3</sup> 102,112	<sup>3</sup> 84,177	<sup>3</sup> 69,749	76,165	68,064	77,053	88,359	48,656
36342	Electric razors and dry shavers.....	<sup>3</sup> 53,376	<sup>3</sup> 48,300	<sup>3</sup> 55,639	48,518	54,537	54,091	53,809	22,009
36343	Other small household electric appliances..	<sup>3</sup> 553,063	<sup>3</sup> 496,824	<sup>3</sup> 424,819	393,995	378,373	336,160	307,713	(NA)
36344	Parts and attachments for small household electric appliances.....	81,521	78,339	76,114	70,930	71,679	55,858	110,940	40,729
36340	Electric housewares and fans, n.s.k.....	10,420	(11,012)	(8,792)	(8,715)	(9,298)	20,628	3,110	6,605
36350	Household vacuum cleaners, including parts and attachments.....	183,138	174,001	157,257	161,309	162,207	155,571	138,774	145,435
36360	Sewing machines and parts, except cases and cabinets sold separately.....	104,713	121,154	136,123	129,898	126,227	97,725	107,492	97,182
3639-	Household appliances, n.e.c.....	<sup>2</sup> 415,749	<sup>2</sup> 380,200	<sup>2</sup> 348,817	<sup>2</sup> 350,004	<sup>2</sup> 372,881	351,719	<sup>4</sup> 268,594	(NA)
36391	Household water heaters, electric.....	61,408	52,333	49,477	50,416	53,848	56,849	48,214	59,362
36392	Household water heaters, except electric <sup>3</sup> ..	143,318	145,000	134,900	154,112	176,102	163,775	138,364	113,669
36393	Other household appliances and parts.....	208,149	182,867	164,440	145,476	142,931	131,095	<sup>4</sup> 82,016	(NA)
36390	Household appliances, n.e.c., n.s.k.....	2,874	-	-	-	-	-	-	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Excludes parts and accessories for electric water heaters.

<sup>3</sup>These 4-digit totals represent the sum of 5-digit product class data obtained from census of manufactures or the Annual Survey of Manufactures and Current Industrial Reports.

<sup>4</sup>The source for these data are listed below:

Product class	Current Industrial Report
36341	M36E Electric Housewares and Fans
36342	
36343	
36392	M34N Heating and Cooking Equipment



**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>			1963 <sup>1</sup>	1958
ELECTRIC HOUSEHOLD RANGES AND OVENS AND SURFACE COOKING UNIT EQUIPMENT AND PARTS (EXCEPT SMALL APPLIANCES) (36311)			OTHER HOUSEHOLD LAUNDRY EQUIPMENT AND PARTS (36332)			PARTS AND ATTACHMENTS FOR SMALL HOUSEHOLD ELECTRICAL APPLIANCES (36344)—Continued		
United States, total....	282,083	203,892	United States, total....	66,839		North Central.....	49,885	35,222
North Central.....	172,002	134,601	Middle Atlantic.....	6,884		Indiana.....	1,379	(Z)
Ohio.....	114,982	74,099	East North Central.....	41,076		Michigan.....	2,131	(Z)
Illinois.....	44,999	43,855	Indiana.....	2,472		South.....	11,811	4,376
All other divisions.....	110,081	69,291	Michigan.....	14,303		Pacific.....	2,039	2,567
Tennessee.....	20,687	10,390	West North Central.....	14,906				
			South and West.....	3,973		HOUSEHOLD VACUUM CLEANERS, INCLUDING PARTS AND ATTACHMENTS (36350)		
HOUSEHOLD OVENS AND RANGES, EQUIPMENT AND PARTS EXCEPT ELECTRIC (36312)			ELECTRIC FANS, EXCEPT INDUSTRIAL TYPE (36341)	1963 <sup>1</sup>	1958	United States, total....		183,138
United States, total....	253,568	228,659	United States, total....	101,972	77,053	Northeast.....		56,178
Northeast.....	45,108	36,874	New England.....	13,849		North Central.....		120,797
Pennsylvania.....	25,077	16,751	Middle Atlantic.....	9,033	28,909	Ohio.....		82,914
North Central.....	105,662	95,555	East North Central.....	37,634		Illinois.....		21,949
Ohio.....	22,916	29,583	Ohio.....	22,823	34,856	South and West.....		6,183
Illinois.....	70,893	53,717	West North Central.....	13,007	( <sup>2</sup> )	California.....		5,292
South.....	75,181	( <sup>2</sup> )	Missouri.....	13,007		HOUSEHOLD WATER HEATERS, ELECTRIC (36391)	1963 <sup>1</sup>	1958
Tennessee.....	55,503	50,700	South and West.....	28,449	13,288	United States, total....	61,408	56,849
Pacific.....	27,617	( <sup>2</sup> )				Northeast.....	6,418	6,819
HOUSEHOLD REFRIGERATORS (36321)			OTHER SMALLER HOUSEHOLD ELECTRIC APPLIANCES (36343)			New York.....	2,298	(Z)
United States, total....	687,887	551,164	United States, total....	562,647	336,160	North Central.....	30,481	33,188
East North Central.....	517,066	402,569	New England.....	73,521	27,702	Illinois.....	15,077	8,710
Wisconsin.....	3,949	5,462	Connecticut.....	61,243	27,702	South.....	15,567	
All other divisions.....	170,821	148,595	Middle Atlantic.....	109,823	( <sup>2</sup> )	Pacific.....	8,942	16,842
			New York.....	73,057	42,747	HOUSEHOLD WATER HEATERS, EXCEPT ELECTRIC (36392)		
HOME AND FARM FREEZERS (36322)			New Jersey.....	2,612	(Z)	United States, total....	142,171	153,538
United States, total....	143,132	178,006	Pennsylvania.....	34,154	( <sup>2</sup> )	New England.....	1,784	
East North Central.....	89,780	79,777	East North Central.....	171,840	34,081	Middle Atlantic.....	17,444	21,279
Michigan.....	16,097	19,969	Ohio.....	36,773	21,985	Pennsylvania.....	11,156	21,279
Wisconsin.....	5,511	22,297	Illinois.....	75,859	79,917	East North Central.....	72,960	( <sup>2</sup> )
West North Central.....	35,349		Wisconsin.....	50,731	34,081	Ohio.....	7,624	7,057
All other divisions.....	18,003	98,229	West North Central.....	39,350	18	Illinois.....	51,235	39,390
			Missouri.....	38,140	12,795	West North Central.....	1,971	( <sup>2</sup> )
HOUSEHOLD MECHANICAL WASHING MACHINES, DRYERS, AND WASHER-DRYER COMBINATIONS (36331)			South.....	125,029	45,923	South.....	14,555	16,671
United States, total....	698,765	672,213	North Carolina.....	33,379	20,424	Pacific.....	33,457	35,044
Middle Atlantic.....	5,925	( <sup>2</sup> )	Tennessee.....	30,482	( <sup>2</sup> )			
East North Central.....	464,378	( <sup>2</sup> )	Mississippi.....	28,204	(Z)	OTHER HOUSEHOLD APPLIANCES AND PARTS (36393)		
Ohio.....	252,328	226,771	West.....	43,084	36,111	United States, total....	208,149	131,095
All other divisions.....	228,462	( <sup>2</sup> )	PARTS AND ATTACHMENTS FOR SMALL HOUSEHOLD ELECTRICAL APPLIANCES (36344)			New England.....	11,255	7,022
			United States, total....	81,521	55,858	Middle Atlantic.....	12,265	11,284
			New England.....	4,368		North Central.....	96,520	49,231
			Connecticut.....	3,629	13,693	Ohio.....	44,592	18,382
			Middle Atlantic.....	13,418		Illinois.....	5,603	5,014
			Pennsylvania.....	6,312	( <sup>2</sup> )	Michigan.....	5,345	( <sup>2</sup> )
						South and West.....	88,109	63,558

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million reported.

<sup>1</sup>For the specified product classes, shipments of \$1 million or more were reported for the States listed, but the exact figures are withheld to avoid disclosure of individual company figures: 36311, New York, Pennsylvania, Michigan, Wisconsin, Kentucky, and California; 36312, Massachusetts, New York, Wisconsin, Missouri, Kansas, Kentucky, Oklahoma, and California; 36321, New York, Ohio, Indiana, Illinois, Michigan, Minnesota, Iowa, Kentucky, Arkansas, and Texas; 36322, Ohio, Indiana, Illinois, Minnesota, Iowa, Kentucky, Arkansas, and Texas; 36331, New York, Pennsylvania, Illinois, Michigan, Wisconsin, Iowa, Kentucky, and Tennessee; 36332, New York, Pennsylvania, Ohio, Illinois, Wisconsin, Iowa, Kentucky, and California; 36341, Massachusetts, Connecticut, New York, Pennsylvania, Illinois, Michigan, Wisconsin, West Virginia, North Carolina, Georgia, Kentucky, Tennessee, Texas, and California; 36343, Massachusetts, Indiana, Michigan, Delaware, Maryland, Virginia, West Virginia, South Carolina, Kentucky, Arkansas, and California; 36344, New York, New Jersey, Ohio, Illinois, Wisconsin, North Carolina, South Carolina, Kentucky, Tennessee, Mississippi, and California; 36350, Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Michigan, Wisconsin, and Minnesota; 36391, Massachusetts, Pennsylvania, Ohio, Michigan, Wisconsin, Georgia, Tennessee, Washington, Oregon, and California; 36392, Rhode Island, New York, Indiana, Michigan, Wisconsin, Iowa, Tennessee, Texas, and California; 36393, Massachusetts, Connecticut, New York, Pennsylvania, Indiana, Wisconsin, Minnesota, Maryland, Kentucky, and California.

<sup>2</sup>Shipments of \$1 million or more were reported, but exact figures are withheld to avoid disclosure of individual company figures.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3631.—HOUSEHOLD COOKING EQUIPMENT			
	Materials, parts, containers, and supplies, total.....	.....	(X)	235,937	(X)	173,559
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	1,410	438	13,740	2,302
331012	Sheet and strip.....	...do.....	244,929	40,316	223,586	35,568
331017	Wire and wire products.....	...do.....	3,448	785	3,930	1,283
331015	Structural shapes.....	...do.....	} 271	39	{ 3,168	630
331013	Plates.....	...do.....				
331019	All other carbon steel mill shapes and forms.....	...do.....				
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	...do.....	} 3,692	{ 4,799	3,308	5,152
331029	All other alloy steel mill shapes and forms.....	...do.....				
331031	Stainless steel.....	...do.....	3,178			
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	.....	-	-	(X)	(X)
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	895	1,232	678	724
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	} 1,154	980	297	190
335123	Plate, sheet, and strip, including military cups and discs.....	...do.....				
335127	Pipe and tube.....	...do.....				
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	...do.....	1,465	764	745	444
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc...	...do.....	1,512	848	} 456	252
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	...do.....	116	135		
335209	Aluminum and aluminum-base alloy refinery shapes.....	.....	(D)	(D)	(NA)	(NA)
	Castings (rough and semifinished):					
332011	Iron (gray and malleable) <sup>1</sup> .....	Short tons.....	7,385	3,241	7,351	2,838
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	(D)	(D)	1,038	637
	Fractional horsepower electric motors (under 1 horsepower):					
362110	Timing motors, synchronous and subsynchronous.....	Number.....	492,896	719	344,000	1,961
362115	Other fractional horsepower electric motors (excluding timing motors).....	...do.....	408,534	1,949	161,000	1,204
260091	Paper and paperboard containers.....	.....	(X)	4,274	(X)	23,000
	Bearings:					
356218	Ball.....	.....	(X)	(D)	} (X)	150
356228	Roller.....	.....	-	-		
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	147,193	(X)	112,127
976000	Materials, components, parts, containers, and supplies consumed, n.s.k.....	.....	(X)	327,393	(X)	5,097
			INDUSTRY 3632.—HOUSEHOLD REFRIGERATORS			
	Materials, parts, containers, and supplies, total.....	.....	(X)	648,625	(X)	507,061
	Mill shapes and forms (except castings):					
	Carbon steel:					
331012	Sheet and strip.....	Short tons.....	640,615	98,536	} 465,645	91,980
331017	Wire and wire products.....	...do.....	5,691	1,036		
331011	Bar and bar shapes.....	...do.....	} 26,159	6,673	{ 417,355	44,596
331013	Plate.....	...do.....				
331015	Structural shapes.....	...do.....				
331019	All other carbon steel mill shapes and forms.....	...do.....				
	Alloy steel (except stainless):					
331021	Bar and bar shapes.....	...do.....	} 4,271	3,607	{ 3,044	1,471
	All other alloy steel mill shapes and forms.....	...do.....				
331031	Stainless steel.....	...do.....			{ 2,370	2,988
	Copper and copper-base alloy:					
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	} 2,826	2,009	{ 1,318	1,160
335728	Bare wire (for electrical conduction).....	1,000 lbs.....				
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	...do.....	} 16,840	12,734	{ 8,801	7,572
335123	Plate, sheet, and strip (including military cups and discs).....	...do.....				
335127	Pipe and tube.....	...do.....				

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3632.--HOUSEHOLD REFRIGERATORS--Continued			
	Mill shapes and forms (except castings):					
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	1,000 lbs.....	29,788	11,663	25,092	12,075
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	..do.....	4,655	3,612	6,811	4,833
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	..do.....	1,854	807		
	Castings (rough and semifinished):					
332011	Iron (gray and malleable).....	Short tons.....	28,144	7,493	14,831	2,974
332300	Steel.....		(D)	(D)	(NA)	(NA)
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	3,433	2,699	(NA)	(NA)
336200	Copper and copper-base alloy.....		-	-	(NA)	(NA)
339100	Iron and steel forgings.....	Short tons.....	(D)	(D)	860	555
	Electric motors and generators:					
	Fractional horsepower electric motors (under 1 horsepower):					
362110	Timing motors, synchronous and subsynchronous.....	Number.....	1,102,532	4,488	(NA)	(NA)
362115	Fractional horsepower electric motors (excluding timing motors)	..do.....	9,822,184	53,999	2,482,000	20,519
362120	Integral horsepower motors and generators (1 horsepower and over)	Number.....	(D)	(D)	106	2,805
	Bearings:					
356218	Ball.....		(X)	3,218	(NA)	(NA)
356228	Roller.....		-	-	(NA)	(NA)
260091	Paper and paperboard containers.....		(NA)	17,521	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	387,623	(X)	347,522
976000	Materials, components, parts, containers, and supplies consumed, n.s.k.....		(X)	30,907	(X)	6,011
			INDUSTRY 3633.--HOUSEHOLD LAUNDRY EQUIPMENT			
	Materials, parts, containers, and supplies, total.....		(X)	396,067	(X)	408,083
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	23,934	5,219	21,715	4,672
331012	Sheet and strip.....	..do.....	397,854	60,543	337,127	50,955
331013	Plates.....	..do.....	-	-	2,416	1,169
331015	Structural shapes.....	..do.....	-	-		
331017	Wire and wire products.....	..do.....	1,437	725	1,872	
331019	All other carbon steel mill shapes and forms.....	..do.....	6,474	1,872		
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	-	-	970	531
331029	All other alloy steel mill shapes and forms.....	..do.....	-	-		
331031	Stainless steel.....	..do.....	1,243	1,436	578	745
	Copper and copper-base alloy:					
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	1,529	1,248	3,004	2,796
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	-	-	610	331
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	..do.....	(D)	(D)		
335123	Plate, sheet and strip (including military cups and discs).....	..do.....	-	-		
335127	Pipe and tube.....	..do.....	-	-		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	..do.....	1,972	952	3,728	2,176
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	..do.....			57	51
335209	All other aluminum mill shapes and forms (wire rolled rod and bar, powder, welded tubing, etc.).....	..do.....				
333401	Aluminum and aluminum-base alloy refinery shapes.....		(D)	(D)	(NA)	(NA)
	Castings (rough and semifinished):					
332011	Iron (gray and malleable).....	Short tons.....	34,228	10,667	28,948	8,854
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	10,543	6,186	10,133	5,564
	Fractional horsepower electric motors (under 1 horsepower):					
362110	Timing motors, synchronous and subsynchronous.....	Number.....	1,590,267	4,302	1,815,000	3,001
362115	Other fractional horsepower electric motors (exclude timing motors).....	..do.....	5,875,511	52,412	4,762,000	53,135

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3633.—HOUSEHOLD LAUNDRY EQUIPMENT—Con.			
260091	Paper and paperboard containers.....	.....	(X)	11,337	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	230,443	(X)	271,817
976000	Materials, components, parts, containers, and supplies consumed, n.s.k.....	.....	(X)	8,725	(X)	2,286
			INDUSTRY 3634.—ELECTRIC HOUSEWARES AND FANS			
	Materials, components, parts, supplies, and containers, total..	.....	(X)	335,544	(X)	212,722
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	7,152	2,000	5,807	1,053
331012	Sheet and strip.....	.....do.....	102,250	17,508	40,972	8,854
331017	Wire and wire products.....	.....do.....	1,745	550	1,707	1,083
331015	Structural shapes.....	.....do.....	-	-	-	-
331013	Plates.....	.....do.....	-	-	-	-
331019	All other carbon steel mill shapes and forms.....	.....do.....	5,321	2,606	2,065	1,004
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	.....do.....	-	-	-	-
331029	All other alloy steel mill shapes and forms.....	.....do.....	14,606	8,178	2,556	855
331031	Stainless steel.....	.....do.....	2,017	2,469	1,844	2,330
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	3,921	3,003	982	730
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	5,579	5,645	4,564	4,491
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	208	190	-	-
335123	Plate, sheet, and strip (including military cups and discs)....	.....do.....	2,395	1,181	3,495	2,904
335127	Pipe and tube.....	.....do.....	667	294	-	-
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	.....do.....	12,557	5,685	9,641	4,424
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	.....do.....	2,064	1,034	-	-
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	.....do.....	3,104	1,549	2,822	1,520
333401	Aluminum and aluminum-base alloy refinery shapes.....	.....	(D)	(D)	(NA)	(NA)
	Castings (rough and semifinished):					
332011	Iron (gray and malleable).....	Short tons.....	571	191	-	-
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	7,754	5,880	9,105	8,228
	Fractional horsepower electric motors (under 1 horsepower):					
362110	Timing motors, synchronous and subsynchronous.....	Number.....	238,114	2,315	545,000	1,890
362115	Other fractional horsepower electric motors (excluding timing motors) <sup>5</sup> .....	.....do.....	6,192,839	14,550	2,228,000	6,342
260091	Paper and paperboard containers.....	.....	(X)	14,457	(X)	5,761
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	214,244	(X)	124,899
	Materials, components, containers, and supplies consumed, n.s.k. <sup>3</sup> ..	.....	(X)	32,015	(X)	36,354
			INDUSTRY 3635.—HOUSEHOLD VACUUM CLEANERS			
	Materials, components, parts, supplies, and containers, total..	.....	(X)	59,439	(X)	52,771
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	1,123	248	709	175
331012	Sheet and strip.....	.....do.....	16,734	3,156	14,260	2,812
331013	Plates.....	.....do.....	-	-	-	-
331015	Structural shapes.....	Short tons.....	-	-	-	-
331017	Wire and wire products.....	.....do.....	4,647	1,140	3,269	1,217
331019	All other carbon steel mill shapes and forms.....	.....do.....	-	-	-	-
	Alloy steel (except stainless):					
331021	Bar and bar shapes.....	.....do.....	-	-	-	-
331029	All other alloy steel mill shapes and forms.....	.....do.....	728	398	230	182
331031	Stainless steel.....	.....do.....	-	-	-	-
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction only).....	1,000 lbs.....	1,344	730	1,432	736
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	378	1,054	145	424
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	-	-	-	-
335123	Plate, sheet, and strip (including military cups and discs)....	.....do.....	202	123	-	-
335127	Pipe and tube.....	.....do.....	-	-	(NA)	(NA)

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958		
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	
			INDUSTRY 3635.—HOUSEHOLD VACUUM CLEANERS—Continued				
	Mill shapes and forms (except castings)—Continued						
	Aluminum and aluminum-base alloy:						
335202	Sheet, plate and foil.....	1,000 lbs.....	2,627	1,390	{	1,037	578
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	...do.....					
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	...do.....				1,111	745
333401	Aluminum and aluminum-base alloy refinery shapes.....	.....	(D)	(D)	(NA)	(NA)	
999808	Aluminum and aluminum-base alloy scrap (exclude home scrap).....	.....	-	-	(NA)	(NA)	
	Castings (rough and semifinished):						
331011	Iron (gray and malleable).....	.....	(D)	(D)	-	-	
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	1,951	1,001	4,100	3,715	
	Fractional horsepower electric motors (under 1 horsepower):						
362110	Timing motors, synchronous and subsynchronous.....	Thousands.....	377	1,923	{	-	-
362115	Other fractional horsepower electric motors (exclude timing motors) <sup>6</sup> .....	...do.....				897	5,217
260091	Paper and paperboard containers.....	.....	(X)	3,115	-	-	
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	42,493	(X)	35,153	
976000	Materials, components, parts, containers, and supplies consumed, n.s.k.....	.....	(X)	2,668	(X)	1,817	
			INDUSTRY 3636.—SEWING MACHINES				
	Materials, components, parts, containers, and supplies, total...	.....	(X)	24,204	(X)	32,356	
	Mill shapes and forms (except castings):						
	Carbon steel:						
331011	Bar and bar shapes.....	Short tons.....	5,770	1,623	{	7,003	1,924
331012	Strip and sheet.....	...do.....					
331013	Plates.....	...do.....					
331015	Structural shapes.....	...do.....	4,216	1,377	{	7,003	1,924
331017	Wire and wire products.....	...do.....					
331019	All other carbon steel mill shapes and forms.....	...do.....					
	Alloy steel (except stainless):						
331021	Bars and bar shapes.....	...do.....	184	150	{	87	55
331029	All other alloy steel mill shapes and forms.....	...do.....				(NA)	(NA)
331031	Stainless steel.....	.....	-	-	(NA)	(NA)	
	Copper and copper-base alloy:						
335728	Bare wire (for electrical conduction only).....	.....	-	-	(NA)	(NA)	
335790	Insulated wire and cable.....	.....	-	-	(NA)	(NA)	
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	.....	(D)	(D)	(NA)	(NA)	
335123	Plate, sheet, and strip (including military cups and discs)...	.....	(D)	(D)	(NA)	(NA)	
335127	Pipe and tube.....	.....	(D)	(D)	(NA)	(NA)	
	Aluminum and aluminum-base alloy:						
335202	Sheet, plate, and foil.....	.....	(D)	(D)	(NA)	(NA)	
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	.....	(D)	(D)	(NA)	(NA)	
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	.....	(D)	(D)	(NA)	(NA)	
333401	Aluminum and aluminum-base alloy refinery shapes.....	.....	(D)	(D)	(NA)	(NA)	
999808	Aluminum and aluminum-base alloy scrap (exclude home scrap).....	.....	-	-	(NA)	(NA)	
	Castings (rough and semifinished):						
332011	Iron (gray and malleable).....	Short tons.....	2,345	1,421	1,896	1,092	
336100	Aluminum and aluminum-base alloy.....	.....	(D)	(D)	(NA)	(NA)	
	Fractional horsepower electric motors (under 1 horsepower):						
362110	Timing motors, synchronous and subsynchronous.....	.....	-	-	(NA)	(NA)	
362115	Other fractional horsepower electric motors (exclude timing motors).....	Number.....	218,327	1,225	106,000	776	
260091	Paper and paperboard containers.....	.....	(X)	(D)	(NA)	(NA)	
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	13,805	(X)	27,792	
976000	Materials, parts, containers, and supplies consumed, n.s.k.....	.....	(X)	34,603	(X)	717	

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3639.--HOUSEHOLD APPLIANCES, N.E.C.			
	Materials, parts, containers, and supplies, total.....		(X)	215,869	(X)	195,403
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bar and bar shapes.....	Short tons.....	497	111	5,128	897
331012	Sheet and strip.....	..do.....	276,279	38,881	281,853	40,592
331013	Plates.....	..do.....	4,360	662	5,378	763
331017	Wire and wire products.....	..do.....	16,198	5,456	1,799	648
331015	Structural shapes.....	..do.....			8,574	2,512
331019	All other carbon steel mill shapes and forms.....	..do.....				
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	350	330	1,181	1,259
331029	All other alloy steel mill shapes and forms.....	..do.....				
331031	Stainless steel.....	..do.....	1,738	1,980		
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	307	191	286	199
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	366	287	815	696
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	861	608	4,387	2,871
335123	Plate, sheet, and strip (including military cups and discs)....	..do.....	1,123	601		
335127	Pipe and tube.....	..do.....	2,534	1,669		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	..do.....	1,155	538	3,384	1,639
335205	Extruded shapes, including rod, bar, pipe, tube, etc.....	..do.....	828	470	1,311	660
335209	All other aluminum mill shapes and forms (wire, rolled and bar, powder, welded tubing, etc.).....	..do.....	1,725	1,558		
	Castings (rough and semifinished):					
332011	Iron (gray and malleable).....	Short tons.....	6,118	3,260	8,781	3,186
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	3,615	2,550	2,203	1,987
	Fractional horsepower electric motors (under 1 horsepower):					
362110	Timing motors, synchronous and subsynchronous.....	Number.....	533,686	2,147	171,000	845
362115	Other fractional horsepower electric motors (excluding timing motors).....	..do.....	2,141,243	13,501	1,354,000	10,722
260091	Paper and paperboard containers.....		(NA)	6,627	(X)	25,000
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	95,356	-	117,777
976000	Materials, supplies, components, etc., n.s.k.....		(X)	39,086	(X)	3,150

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>In addition, in 1963 establishments in industry 3631 produced 6,062 short tons of iron castings for incorporation into other items produced at the same establishment. The comparable figure in 1958 was 7,105 short tons.

<sup>2</sup>Represents estimates published in MC58(1)-7 (Supplement), "Selected Materials Consumed," from data collected in a supplemental survey on Form MA-131, "Consumption of Materials, Parts, Containers, and Supplies During 1958." This survey was limited to large establishments in selected chemical, machinery and equipment industries and resulted in estimates which are subject to greater error than are the figures on materials consumption collected as a regular part of the census of manufactures.

<sup>3</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

<sup>4</sup>Includes bars and bar shapes; quantity, 9,418 short tons and value \$2,076 thousand.

<sup>5</sup>In addition, in 1963 establishments in industry 3634 produced 8,388 thousand all other fractional horsepower electric motors for incorporation into items produced at the same establishment. The comparable figure for 1958 was 5,527 thousand.

<sup>6</sup>In addition, in 1963, establishments in industry 3635 produced 2,536 thousand fractional horsepower electric motors produced and incorporated into items at the same establishment. The comparable figure for 1958 was 1,619 thousand.



TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

Item	Household cooking equipment (SIC 3631)	Household refrigerators (SIC 3632)	Household laundry equipment (SIC 3633)	Electric housewares and fans (SIC 3634)	Household vacuum cleaners (SIC 3635)	Sewing machines (SIC 3636)	Household appliances, n.e.c. (SIC 3639)
Total cost of purchased fuels and electric energy.....\$1,000..	4,418	11,833	6,280	5,251	1,013	1,302	4,318
Total cost of purchased fuels.....do....	2,104	4,871	2,757	1,969	355	457	2,203
Bituminous coal, lignite, and anthracite:							
Quantity.....1,000 short tons..	48	273	85	(S)	(S)	(S)	25
Cost.....\$1,000..	377	1,858	591	(S)	(S)	(S)	143
Coke and breeze:							
Quantity.....1,000 short tons..	5	-	-	-	-	-	-
Cost.....\$1,000..	149	-	-	-	-	-	-
Fuel oil (distillate and residual):							
Quantity.....1,000 barrels of 42 gallons..	86	106	69	233	(S)	109	75
Cost.....\$1,000..	299	288	266	848	(S)	297	296
Gas (natural, manufactured, still, blast furnace, and coke oven):							
Quantity.....million cu.ft..	1,931	3,786	3,587	1,314	349	(S)	2,895
Cost.....\$1,000..	1,076	2,111	1,823	830	199	(S)	1,592
Other fuels.....do....	203	634	77	134	(S)	(S)	172
Electric energy:							
Purchased:							
Quantity.....million kw.-hrs..	237	690	308	216	49	63	154
Cost.....\$1,000..	2,314	6,962	3,523	3,282	658	845	2,115
Generated less sold.....million kw.-hrs..	(S)	-	(S)	-	-	-	-
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	120	222	132	106	22	32	72
Prime movers, total.....do....	13	13	20	4	2	(Z)	5
Driving generators.....do....	1	(Z)	2	1	(Z)	-	1
Not driving generators.....do....	12	13	18	3	2	(Z)	4
Electric motors, total.....do....	108	208	112	102	20	32	67
Driven by purchased energy.....do....	108	208	111	102	20	32	67
Driven by energy generated at establishment.....do....	(Z)	-	1	-	-	-	-
Aggregate horsepower per 100 production workers.....	848	637	847	380	548	705	735

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3631-	HOUSEHOLD COOKING EQUIPMENT										
	Entire industry.....	83	19,191	111,266	15,149	30,356	75,580	230,285	253,530	473,453	8,216
	Establishments with—										
	90% or more specialization...	62	11,754	70,380	9,359	18,925	49,370	162,850	178,489	332,228	5,793
	75-89% specialization.....	6	1,795	10,253	1,360	2,564	5,877	18,185	19,029	36,613	299
36311	Electric household ranges and ovens and surface cooking unit equipment and parts (except small appliances) (primary product class of estab.).	17	6,460	41,602	4,694	9,080	26,477	101,703	85,062	181,488	3,238
36312	Household ovens and ranges, equipment and parts, except electric (primary product class of estab.).	54	12,708	69,553	10,435	21,237	49,014	128,420	168,452	291,350	4,971
	Establishments with—										
	90% or more specialization.....	29	4,454	25,840	3,819	7,601	20,238	51,959	68,342	116,646	1,065
	75-89% specialization.....	8	3,147	16,810	2,502	5,327	10,828	31,303	40,150	70,564	1,248
3632-	HOUSEHOLD REFRIGERATORS										
	Entire industry.....	34	43,065	279,977	35,232	69,978	212,228	631,269	696,141	1,306,539	21,765
	Establishments with—										
	90% or more specialization..	22	9,059	57,328	7,478	15,199	43,319	135,370	170,231	301,381	5,030
36321	Household refrigerators (primary product class of estab.).....	18	39,886	261,723	32,834	65,178	199,902	596,345	645,745	1,220,664	18,083
36322	Home and farm freezers (primary product class of estab.).....	7	3,151	18,113	2,375	4,756	12,220	34,688	50,081	85,334	3,669
3633-	HOUSEHOLD LAUNDRY EQUIPMENT										
	Entire industry.....	39	18,343	115,387	14,738	28,827	85,865	353,863	416,015	760,161	9,217
	Establishments with—										
	90% or more specialization...	32	12,655	80,606	10,285	20,592	61,060	280,249	340,181	615,683	8,215
36331	Household mechanical washing machines, dryers, and washer-dryer combinations (primary product class of estab.).....	19	17,296	109,698	13,868	27,119	81,663	344,049	399,498	733,307	8,678
	Establishment with—										
	90% or more specialization....	10	8,861	56,402	7,496	15,091	44,547	217,034	241,242	452,200	5,796
3634-	ELECTRIC HOUSEWARES AND FANS										
	Entire industry.....	312	38,801	188,257	31,053	59,567	126,912	463,845	394,578	850,281	17,009
	Establishments with—										
	90% or more specialization...	257	20,884	92,820	17,495	34,061	67,267	247,712	217,608	467,706	8,113
	75-89% specialization.....	18	8,406	48,762	6,445	12,028	31,174	110,114	92,382	198,310	4,116
36341	Electric fans, except industrial type (primary product class of estab.).....	22	4,943	24,905	3,960	7,861	16,274	158,884	44,423	203,840	1,184
	Establishments with—										
	90% or more specialization....	9	1,208	5,468	1,015	2,114	4,107	8,694	7,115	16,428	263
	75-89% specialization.....	4	342	1,710	261	519	1,018	5,266	3,841	9,199	48
36343	Other small household electric appliances (primary product class of estab.).....	153	29,717	144,138	23,881	45,308	97,939	324,850	311,865	629,331	14,304
	Establishments with—										
	90% or more specialization....	108	12,179	51,072	10,478	20,042	38,728	128,951	126,922	257,360	5,526
	75-89% specialization.....	18	4,584	21,153	3,839	7,245	15,280	42,184	41,872	83,386	2,696
36344	Parts and attachments for small household electric appliances (primary product class of estab.).	38	1,299	5,255	1,057	2,111	3,677	10,504	10,321	20,252	321
	Establishments with—										
	90% or more specialization....	28	317	1,202	257	498	823	2,189	2,316	4,284	49
3635-	HOUSEHOLD VACUUM CLEANERS										
	Entire industry.....	34	5,682	35,524	4,235	8,208	22,670	116,137	65,315	175,357	5,739
	Establishments with—										
	90% or more specialization...	28	1,669	10,286	1,251	2,372	6,514	35,448	18,868	54,091	(D)

See footnotes at end of table.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued**

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3639-	HOUSEHOLD APPLIANCES, N.E.C.										
	Entire industry.....	112	13,127	81,590	9,896	19,929	54,286	204,188	233,073	435,458	6,738
	Establishments with—										
	90% or more specialization...	75	4,891	30,695	3,604	7,300	19,527	96,191	97,569	192,106	2,485
	75-89% specialization.....	13	2,480	15,023	1,908	3,653	10,032	27,684	33,325	60,759	1,349
36391	Household water heaters, electric (primary product class of estab.)	26	1,254	6,319	985	2,011	4,188	19,901	17,078	36,974	459
	Establishments with—										
	90% or more specialization.....	13	276	1,413	208	423	913	3,690	5,309	9,025	51
36392	Household water heaters, except electric (primary product class of estab.).....	35	6,853	44,495	5,235	10,726	30,563	88,135	121,918	209,369	3,079
	Establishments with—										
	90% or more specialization.....	13	437	2,656	326	720	1,794	8,424	10,783	19,293	342
	75-89% specialization.....	7	973	5,217	769	1,455	3,326	8,370	13,379	21,239	346
36393	Other household appliances and parts (primary product class of estab.)	30	4,863	29,995	3,544	6,954	18,915	93,381	91,977	185,200	3,159
	Establishments with—										
	90% or more specialization.....	19	2,313	15,459	1,561	3,120	8,874	51,584	52,066	103,331	1,712
	75-89% specialization.....	4	219	1,027	153	284	528	2,683	2,370	5,194	68

Standard Notes: - Represent zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

TABLE 9. Establishments, Production Workers, and Man-Hours for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation				Man-hours worked by production workers in the specified operation (1,000)
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>			
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more	
INDUSTRY 3631.—HOUSEHOLD COOKING EQUIPMENT									
Total, all operations.....	(X)	(X)	(X)	(X)	12,360	(X)	(X)	(X)	27,274
Ferrous foundry.....	8	1	-	7	569	(D)	-	(D)	1,227
Forging--presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	2	-	-	2	(D)	-	-	(D)	(D)
Electroplating and other plating.....	7	1	4	2	140	(D)	48	(D)	270
Heat treating of metals.....	2	1	1	-	(D)	(D)	(D)	-	(D)
Automatic screw machine department.....	3	1	2	-	24	(D)	(D)	-	48
Machine shop.....	19	8	7	4	349	14	60	275	773
Tool and die shop.....	17	4	8	5	296	10	107	179	651
Foundry pattern shop.....	6	2	4	-	47	(D)	(D)	-	119
Plate or structural fabrication.....	1	-	-	1	(D)	-	-	(D)	(D)
Stamping, blanking and forming of metals.....	35	1	7	27	1,868	(D)	(D)	1,939	3,975
Painting, lacquering and enameling on metals.....	35	5	7	23	1,857	16	76	1,765	3,537
Assembly of product.....	40	2	6	32	5,279	(D)	(D)	5,211	10,691
Shipping department, including packing and crating...	39	13	16	10	572	31	141	400	1,195
All other operations such as maintenance, warehousing, etc.....	31	2	11	19	1,959	(D)	(D)	1,834	3,968
INDUSTRY 3632.—HOUSEHOLD REFRIGERATORS									
Nonferrous foundry (except die casting).....	1	1	-	-	(D)	(D)	-	-	(D)
Electroplating and other plating.....	4	-	1	3	134	-	(D)	(D)	(D)
Galvanizing and other hot dip coating.....	-	-	-	-	-	-	-	-	-
Heat treating of metals.....	3	-	1	2	69	-	(D)	(D)	(D)
Automatic screw machine department.....	3	-	-	3	148	-	-	-	148
Machine shop.....	8	-	2	6	1,027	-	(D)	(D)	(D)
Tool and die shop.....	15	4	4	7	793	11	54	728	728
Foundry pattern shop.....	1	-	1	-	(D)	-	(D)	(D)	-
Plate or structural fabrication.....	2	1	-	1	(D)	(D)	-	-	(D)
Stamping, blanking and forming of metals.....	22	1	4	17	3,272	(D)	(D)	(D)	3,221
Painting, lacquering and enameling on metals.....	24	4	6	14	2,930	12	78	78	2,840
Assembly of product.....	24	1	1	22	13,452	(D)	(D)	(D)	13,435
Shipping department, including packing and crating...	23	4	7	12	1,705	9	55	55	1,641
INDUSTRY 3633.—HOUSEHOLD LAUNDRY EQUIPMENT									
Total, all operations.....	(X)	(X)	(X)	(X)	14,531	(X)	(X)	(X)	(X)
Ferrous foundry.....	1	-	-	1	(D)	-	-	-	(D)
Nonferrous foundry (except die casting).....	1	-	-	1	(D)	-	-	-	(D)
Nonferrous die casting.....	5	2	1	2	69	(D)	(D)	(D)	(D)
Forging--presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	1	-	1	-	(D)	-	(D)	(D)	-
Electroplating and other plating.....	7	4	1	2	75	8	(D)	(D)	(D)
Galvanizing and other hot dip coating.....	1	-	1	-	(D)	-	(D)	(D)	-
Heat treating of metals.....	6	5	1	-	20	(D)	(D)	(D)	-
Automatic screw machine department.....	9	-	7	2	229	-	(D)	(D)	(D)
Machine shop.....	21	1	7	13	1,205	(D)	(D)	(D)	1,150
Tool and die shop.....	20	7	7	6	401	15	99	287	287
Foundry pattern shop.....	1	1	-	-	(D)	(D)	-	-	-
Plate or structural fabrication.....	2	1	-	1	(D)	(D)	-	-	(D)
Stamping, blanking and forming of metals.....	22	2	6	14	2,073	(D)	(D)	(D)	1,996
Painting, lacquering and enameling on metals.....	19	3	4	12	1,768	2	32	32	1,734
Plastics molding.....	3	-	1	2	103	-	(D)	(D)	(D)
Assembly of product.....	25	1	6	18	4,863	(D)	(D)	(D)	4,786
Shipping department, including packing and crating...	23	10	5	8	383	21	48	48	314
All other operations such as maintenance, warehousing, etc.....	27	5	6	16	3,156	9	71	71	3,076

See footnotes at end of table.



TABLE 9. Establishments, Production Workers, and Man-Hours for Selected Metalworking Operations: 1963—Continued

Metalworking operations	Number of establishments				Employment in the specified operation				Man-hours worked by production workers in the specified operation (1,000)
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>			
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more	
INDUSTRY 3634.—ELECTRIC HOUSEWARES AND PARTS									
Total, all operations.....	(X)	(X)	(X)	(X)	25,398	(X)	(X)	(X)	49,844
Nonferrous foundry (except die casting).....	4	1	2	1	84	(D)	(D)	(D)	166
Nonferrous die casting.....	12	4	4	4	263	11	30	222	506
Forging--presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	2	1	-	1	31	(D)	-	(D)	64
Electroplating and other plating.....	36	8	16	12	681	18	189	474	1,459
Galvanizing and other hot dip coating.....	2	-	1	1	42	-	(D)	(D)	90
Heat treating of metals.....	14	9	5	-	73	20	53	-	136
Automatic screw machine department.....	10	2	3	5	212	(D)	(D)	181	421
Machine shop.....	35	14	19	12	1,437	30	111	1,296	2,842
Tool and die shop.....	49	18	22	9	590	37	235	318	1,202
Foundry pattern shop.....	1	-	1	-	(D)	-	(D)	(D)	(D)
Plate or structural fabrication.....	3	2	1	-	(D)	(D)	(D)	-	(D)
Stamping, blanking and forming of metals.....	75	22	14	39	2,156	42	163	1,951	4,252
Painting, lacquering and enameling on metals.....	52	20	25	7	471	39	212	220	1,054
Plastics molding.....	20	4	7	9	509	11	82	416	1,028
Assembly of product.....	100	14	18	68	14,275	22	177	14,076	27,678
Shipping department, including packing and crating...	81	40	26	15	888	79	252	557	1,783
All other operations such as maintenance, warehousing, etc.....	67	19	14	34	3,668	39	148	3,481	7,117
INDUSTRY 3635.—HOUSEHOLD VACUUM CLEANERS									
Total, all operations.....	(X)	(X)	(X)	(X)	3,907	(X)	(X)	(X)	7,686
Nonferrous die casting.....	2	-	-	2	(D)	-	-	(D)	(D)
Electroplating and other plating.....	4	-	2	2	81	-	(D)	(D)	152
Heat treating of metals.....	3	3	-	-	9	9	-	-	18
Automatic screw machine department.....	3	-	3	-	34	-	34	-	68
Machine shop.....	8	4	-	4	266	6	-	260	509
Tool and die shop.....	7	4	-	3	174	10	-	164	342
Foundry pattern shop.....	2	1	-	1	(D)	(D)	-	(D)	(D)
Stamping, blanking and forming of metals.....	10	4	2	4	233	(D)	(D)	217	457
Painting, lacquering and enameling on metals.....	8	4	1	3	109	(D)	(D)	88	216
Plastics molding.....	3	1	-	2	(D)	(D)	-	(D)	(D)
Assembly of product.....	11	2	3	6	1,458	(D)	(D)	1,427	2,847
Shipping department, including packing and crating...	11	5	2	1	86	9	(D)	(D)	188
All other operations such as maintenance, warehousing, etc.....	9	2	2	5	1,256	(D)	(D)	1,227	2,495
INDUSTRY 3636.—SEWING MACHINES									
Total, all operations.....	(X)	(X)	(X)	(X)	5,076	(X)	(X)	(X)	10,246
Ferrous foundry.....	3	-	1	2	(D)	-	(D)	(D)	316
Nonferrous die casting.....	2	-	-	2	(D)	-	-	(D)	(D)
Forging--presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	2	-	-	2	(D)	-	-	(D)	(D)
Electroplating and other plating.....	4	1	1	2	63	(D)	(D)	(D)	(D)
Heat treating of metals.....	7	3	2	2	80	8	(D)	(D)	163
Automatic screw machine department.....	7	2	2	3	236	(D)	(D)	218	482
Machine shop.....	21	7	6	8	2,510	17	68	2,425	5,118
Tool and die shop.....	6	-	4	2	94	-	(D)	(D)	192
Foundry pattern shop.....	2	1	-	1	(D)	(D)	-	(D)	(D)
Stamping, blanking and forming of metals.....	7	5	1	1	48	7	(D)	(D)	74
Painting, lacquering and enameling on metals.....	6	4	2	-	21	(D)	(D)	-	42
Plastics molding.....	1	1	-	-	(D)	(D)	-	-	(D)
Assembly of product.....	13	5	3	5	734	9	29	696	1,490
Shipping department, including packing and crating...	10	7	2	1	67	13	(D)	(D)	148
All other operations such as maintenance, warehousing, etc.....	7	-	2	5	670	-	(D)	(D)	1,381
INDUSTRY 3639.—HOUSEHOLD APPLIANCES, N.E.C.									
Total, all operations.....	(X)	(X)	(X)	(X)	8,228	(X)	(X)	(X)	17,053
Nonferrous die casting.....	2	2	-	-	(D)	(D)	-	-	(D)
Forging--presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	1	1	-	-	(D)	(D)	-	-	(D)
Electroplating and other plating.....	2	1	-	1	(D)	(D)	-	(D)	(D)
Galvanizing and other hot dip coating.....	6	3	3	-	34	9	25	-	64
Heat treating of metals.....	4	4	-	-	7	7	-	-	14
Automatic screw machine department.....	7	5	2	-	29	(D)	(D)	-	55
Machine shop.....	26	12	8	6	345	29	102	214	704
Tool and die shop.....	22	12	8	2	147	25	(D)	(D)	287
Foundry pattern shop.....	1	-	1	-	(D)	-	(D)	-	10

See footnotes at end of table.

TABLE 9. Establishments, Production Workers, and Man-Hours for Selected Metalworking Operations: 1963—Continued

Metalworking operations	Number of establishments				Employment in the specified operation				Man-hours worked by production workers in the specified operation (1,000)
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>			
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more	
	INDUSTRY 3639.—HOUSEHOLD APPLIANCES, N.E.C.—Continued								
Plate or structural fabrication.....	7	2	4	1	102	(D)	(D)	(D)	207
Stamping, blanking and forming of metals.....	45	13	17	15	1,059	27	172	860	2,226
Painting, lacquering and enameling on metals.....	48	30	8	10	632	48	69	515	1,483
Plastics molding.....	5	3	1	1	(D)	(D)	(D)	(D)	(D)
Assembly of product.....	55	9	18	28	4,124	22	200	3,902	8,356
Shipping department, including packing and crating...	51	31	15	5	337	53	129	155	685
All other operations such as maintenance, warehousing, etc.....	39	14	9	16	1,324	21	112	1,191	2,795

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

Item	Industry						
	3631	3632	3633	3634	3635	3636	3639
Total number of establishments in the industry.....	83	34	39	312	34	86	112
Number of establishments which reported one or more of the specified operations	47	24	29	122	16	26	68
Percent of industry production workers in these establishments.....	80-85	90-95	95-100	80-85	90-95	85-90	80-85
Number of establishments which reported "none" of the operations apply.....	0	0	1	0	0	0	0
Percent of industry production workers in these establishments.....	0	0	0-5	0	0	0	0
Percent of industry production workers in establishments which completed the metalworking operations inquiry.....	80-85	90-95	95-100	80-85	90-95	85-90	80-85

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.





## ELECTRIC LIGHTING AND WIRING EQUIPMENT

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3641—Electric Lamps
- 3642—Lighting Fixtures
- 3643—Current Carrying Wiring Devices
- 3644—Noncurrent Carrying Wiring Devices

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1-4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3641—ELECTRIC LAMPS

This industry comprises establishments primarily engaged in manufacturing electric bulbs, tubes, and related light sources. Important products of this industry include incandescent filament lamps, vapor and fluorescent lamps, photoflash and photoflood lamps, electrotherapeutic lamp units for ultra-violet and infra-red radiation, and other electric light sources. Establishments primarily engaged in manufacturing glass blanks for bulbs are classified in industry 3229; and lamp components, such as supports, filaments, lead-in wires and cold cathode fluorescent lamp electrodes in industry 3699. For a detailed list of products of industry 3641, refer to table 6A, product codes 3641021 to 3641063.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Electric Lamps Industry totaled \$575 million. This amount included shipments of electric lamps (primary products) valued at \$523 million, shipments of other products (secondary products) valued at \$30 million, and miscellaneous receipts (mainly resales) at \$22 million.

This industry's shipments of electric lamps represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was 94 percent. Secondary products shipped by this industry in 1963 consisted mainly of other special industry machinery and equipment, and lamp bulb components.



Shipments of electric lamps by this industry represented 96 percent of all shipments of these products (\$546 million) by all industries. In 1958 the coverage ratio was 98 percent.

The production index for the primary products of the industry increased to 153 in 1963 from the 1958 level of 116. The unit value index for 1963 was 111 compared to 110 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3642—LIGHTING FIXTURES

This industry comprises establishments primarily engaged in manufacturing lighting fixtures and equipment of any type, including electric and gas lighting fixtures; carbide, kerosene, and gasoline lamps; and metal reflectors and fittings. Establishments primarily engaged in producing glassware for lighting fixtures are classified in Major Group 32; and electric light bulbs, tubes, and related light sources in industry 3641. For a detailed list of products of industry 3642, refer to table 6A, product codes 3642110 to 3642761.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Lighting Fixtures Industry totaled \$1,159 million. This amount included shipments of lighting fixtures (primary products) valued at \$1,039 million, shipments of other products (secondary products) valued at \$84 million, and miscellaneous receipts (mainly resales), at \$36 million.

This industry's shipments of lighting fixtures represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 included specialty transformers and fluorescent ballasts (\$6 million) and current-carrying wiring devices (\$4 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 28 percent of the total industry shipments are represented by plants specializing in product class 36422; 15 percent each in product classes 36421 and 36427; and 14 percent in product class 36424.

Shipments of lighting fixtures by this industry represented 93 percent of all shipments of these products (\$1,116 million) by all industries. In 1958 the coverage ratio was 94 percent. Another industry shipping lighting fixtures was industry 3644, Noncurrent Carrying Wiring Devices, \$11 million.

#### 3643—CURRENT CARRYING WIRING DEVICES

This industry comprises establishments primarily engaged in manufacturing current-carrying wiring devices. Important products of this industry include attachment plugs and caps, convenience outlets, lamp sockets and receptacles, snap switches, conductor connectors, overhead trolley line material, rail bonds for both propulsion and signal circuits, lightning arrestors, and other lightning protective equipment. For a detailed list of products of industry 3643, refer to table 6A, product codes 3643001 to 3643098.

The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been changed from the classification system used in 1958. The change in the composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is due to the reclassification of electronic connectors into industry 3679, Electronic Components, N.E.C. In 1958 electronic connectors were included in this industry.

Value of shipments and other receipts of the Current Carrying Devices Industry totaled \$616 million. This amount included shipments of current carrying devices (primary products) valued at \$464 million, shipments of other products (secondary products) valued at \$117 million, and miscellaneous receipts (mainly resales) at \$35 million.

This industry's shipments of current carrying devices represented 80 percent of its total product shipments. The industry specialization ratio in 1958 was 85 percent. Secondary products shipped by this industry in 1963 included other electronic components, n.e.c. (\$17 million), and appliance wire and cord (made from purchased materials) (\$13 million).

Shipments of current carrying devices by this industry represented 83 percent of all shipments of these products (\$562 million) by all industries. In 1958 the coverage ratio was 79 percent. Other industries shipping current carrying devices included industry 3644, Noncurrent Carrying Devices, \$24 million; and industry 3679, Electronic Components, N.E.C., \$11 million.

The production index for the primary products of the industry increased to 191 in 1963 from the 1958 level of 169. The unit value index for 1963 was 116 compared to 106 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3644--NONCURRENT CARRYING WIRING DEVICES

This industry comprises establishments primarily engaged in manufacturing noncurrent carrying wiring devices. Important products of this industry include conduits and fittings, electrical insulators and insulation materials, except porcelain insulators (industry 3624) and glass insulators (industry 3229); outlet, switch and fuse boxes; and pole line hardware. For a detailed list of products of industry 3644, refer to table 6A, product codes 3644111 to 3644323.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Noncurrent Carrying Devices Industry totaled \$479 million. This amount included shipments of noncurrent carrying devices (primary products) valued at \$352 million, shipments of other products (secondary products) valued at \$103 million, and miscellaneous receipts (mainly resales) at \$24 million.

This industry's shipments of noncurrent carrying devices represented 77 percent of its total product shipments. The industry specialization ratio in 1958 was 78 percent. Secondary products shipped by this industry in 1963 included current carrying devices (\$24 million) and outdoor lighting equipment (\$11 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 50 percent of the total industry shipments are represented by plants specializing in product class 36442.

Shipments of noncurrent carrying devices by this industry represented 80 percent of all shipments of these products (\$439 million) by all industries. In 1958 the coverage ratio was 89 percent. Other industries shipping noncurrent carrying devices included industry 3317, Steel Pipe and Tube, \$10 million; industry 3352, Aluminum Rolling and Drawing, \$12 million; and industry 3643, Current Carrying Devices, \$11 million.

The production index for the primary products of the industry increased to 186 in 1963 from the 1958 level of 107. The unit value index for 1963 was 99 compared to 112 in 1958. Both indexes were computed on a basis of 1954 = 100.



# LIGHTING AND WIRING DEVICES: SIC 364 Value Added by Manufacture by State: 1963

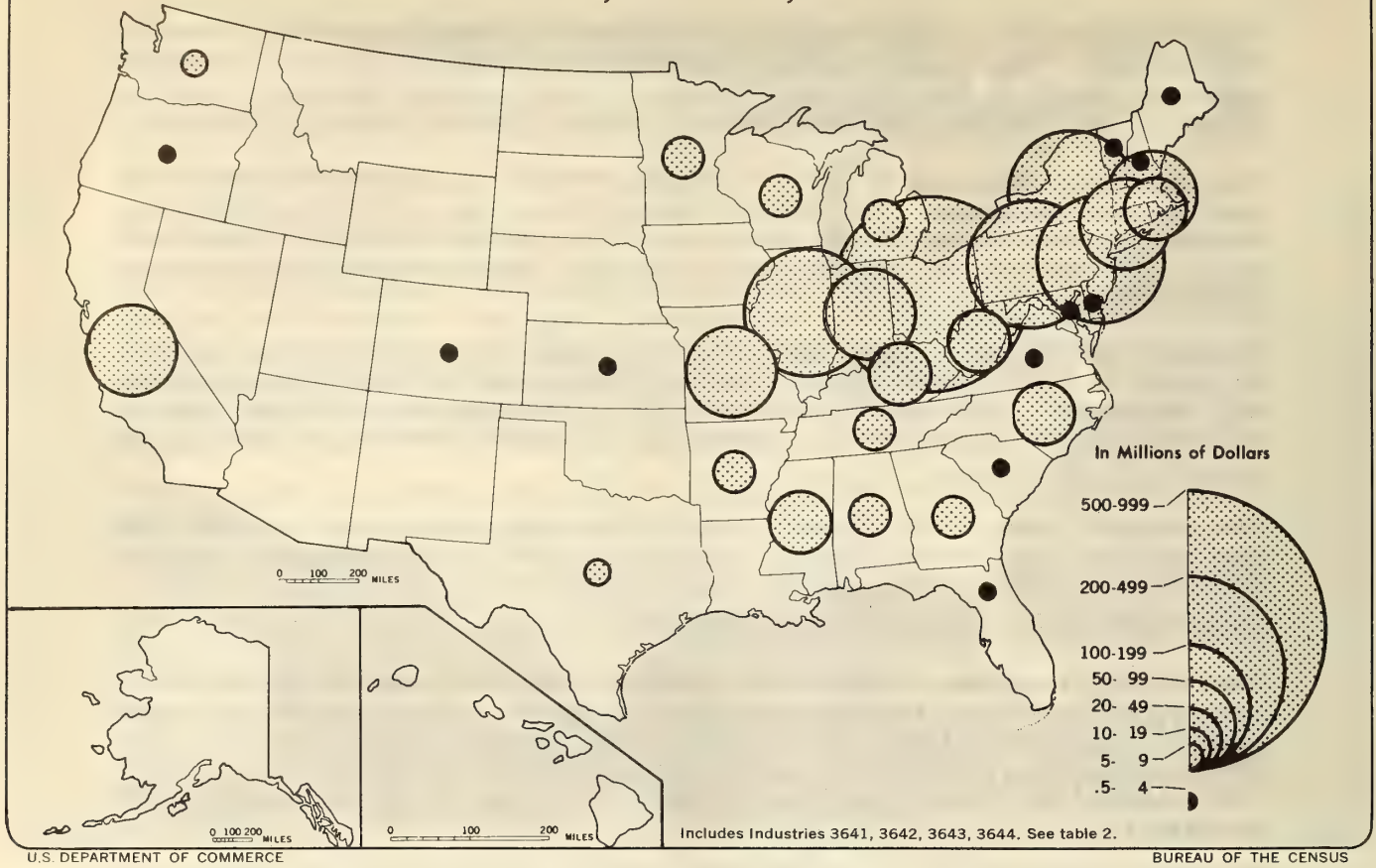


TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new  (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3641.—ELECTRIC LAMPS														
1963.....	54	81	50	23,404	122,721	20,461	40,256	99,476	362,235	207,016	574,522	17,040	95	96
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,579	116,350	18,827	38,820	92,593	367,055	184,852	544,880	12,694	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,569	107,675	17,595	35,982	84,018	336,172	168,031	513,186	10,738	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,921	114,068	19,707	39,453	89,938	355,694	169,186	517,419	10,465	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,849	109,866	18,789	39,622	87,232	339,166	165,841	497,282	10,613	(NA)	(NA)
1958.....	35	66	52	21,495	95,298	18,236	35,119	73,625	270,498	136,158	417,516	8,276	94	98
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,731	102,731	21,478	42,469	82,016	297,911	145,000	435,280	11,000	93	100
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,001	95,763	20,941	41,450	77,167	289,874	136,869	411,628	12,518	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,017	83,214	19,137	37,541	66,410	264,300	119,334	381,522	8,807	(NA)	(NA)
1954.....	35	66	53	21,963	78,921	19,172	36,750	63,205	216,230	111,505	330,864	8,288	94	99
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,207	73,886	18,966	37,018	61,511	204,559	115,975	320,534	9,644	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,276	65,310	17,417	34,087	50,885	165,350	88,852	254,202	7,980	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,955	76,078	22,023	42,269	62,899	196,711	113,340	310,051	7,514	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,679	61,588	18,888	37,614	49,480	165,170	91,966	257,136	7,730	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,468	52,587	17,263	33,465	43,201	132,042	78,205	210,248	9,197	(NA)	(NA)
1947.....	35	62	52	23,842	57,914	21,550	42,090	48,891	120,344	82,904	203,248	11,318	94	100
1939.....	(NA)	55	(NA)	11,587	15,309	9,622	(NA)	10,689	56,257	28,571	84,828	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	41	(NA)	(NA)	(NA)	8,984	(NA)	10,163	56,348	26,190	82,538	(NA)	(NA)	(NA)
INDUSTRY 3642.—LIGHTING FIXTURES														
1963.....	1,203	1,239	480	53,866	288,148	42,052	83,284	193,464	587,834	578,062	1,159,497	23,072	93	93
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	51,914	272,202	41,112	80,132	180,250	548,710	566,879	1,107,262	15,176	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	49,768	249,070	39,313	75,728	165,029	476,797	506,678	984,193	12,178	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	51,775	249,249	40,971	80,627	167,247	467,989	516,254	978,015	15,194	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	51,182	244,438	40,489	79,998	162,814	452,280	497,644	946,059	15,029	(NA)	(NA)
1958.....	1,154	1,181	431	47,309	215,829	36,443	71,605	143,786	397,378	419,912	826,595	14,415	91	94
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	53,690	227,295	42,680	84,724	159,736	403,533	409,833	811,665	15,602	89	92
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	54,827	220,090	44,393	88,378	158,733	382,401	404,351	786,082	13,836	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	55,099	213,910	45,541	86,701	157,482	381,303	394,817	759,958	23,030	(NA)	(NA)
1954.....	1,211	1,228	381	45,078	181,951	36,361	73,660	128,759	324,651	332,815	660,073	14,217	90	90
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	54,484	215,190	44,745	90,847	158,973	383,513	376,540	760,053	17,076	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	47,969	177,984	38,849	79,211	127,369	325,758	304,302	630,060	7,840	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	47,782	170,682	39,377	80,246	124,450	305,083	339,333	644,416	16,398	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	46,281	157,398	37,276	77,249	109,234	277,362	322,369	599,731	16,339	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	43,303	140,422	34,813	70,641	97,368	250,504	265,269	515,863	7,560	(NA)	(NA)
1947.....	1,202	(NA)	(NA)	46,891	131,279	39,393	(NA)	96,291	239,191	226,231	465,422	(NA)	(NA)	(NA)
1939.....	(NA)	568	(NA)	25,686	35,758	20,477	(NA)	23,238	64,731	59,851	124,582	(NA)	(NA)	(NA)
1937.....	(NA)	466	(NA)	25,599	33,888	21,743	(NA)	24,918	59,503	55,593	115,096	(NA)	(NA)	(NA)
1935.....	(NA)	501	(NA)	20,113	24,342	16,677	(NA)	17,232	45,586	40,114	85,700	(NA)	(NA)	(NA)
1933.....	(NA)	357	(NA)	12,459	12,625	10,538	(NA)	9,506	26,932	19,241	46,173	(NA)	(NA)	(NA)
1931.....	(NA)	523	(NA)	-	-	14,790	(NA)	18,150	44,738	30,312	75,050	(NA)	(NA)	(NA)
1929.....	(NA)	614	(NA)	28,339	46,979	23,580	(NA)	33,269	87,048	57,918	144,966	(NA)	(NA)	(NA)
1927.....	(NA)	481	(NA)	25,821	41,898	21,030	(NA)	29,207	72,193	55,609	127,802	(NA)	(NA)	(NA)
1925.....	(NA)	517	(NA)	26,835	42,301	22,334	(NA)	31,072	71,927	57,771	129,698	(NA)	(NA)	(NA)
1923.....	(NA)	535	(NA)	27,359	39,567	22,191	(NA)	29,097	66,339	52,640	118,979	(NA)	(NA)	(NA)
1921.....	(NA)	465	(NA)	19,056	25,409	15,866	(NA)	18,523	39,252	32,802	72,054	(NA)	(NA)	(NA)
1919.....	(NA)	512	(NA)	21,776	26,228	18,155	(NA)	19,095	41,679	38,688	80,367	(NA)	(NA)	(NA)
1914.....	(NA)	611	(NA)	21,389	15,371	18,047	(NA)	10,677	23,276	22,102	45,378	(NA)	(NA)	(NA)
1909.....	(NA)	619	(NA)	22,475	14,734	18,861	(NA)	10,393	24,590	20,467	45,057	(NA)	(NA)	(NA)
1904.....	(NA)	405	(NA)	14,319	8,606	12,576	(NA)	6,408	15,482	11,078	26,560	(NA)	(NA)	(NA)
1899.....	(NA)	370	(NA)	12,532	6,680	11,238	(NA)	5,188	11,859	7,962	19,821	(NA)	(NA)	(NA)
INDUSTRY 3643.—CURRENT CARRYING DEVICES														
1963 <sup>3</sup> .....	431	449	180	35,424	175,185	27,239	53,474	115,097	355,643	257,175	615,980	14,119	80	83
1962 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	40,633	189,586	32,018	63,058	125,804	386,741	269,105	649,849	14,877	(NA)	(NA)
1961 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	41,536	196,028	31,827	62,831	124,932	388,469	267,342	639,532	15,534	(NA)	(NA)
1960 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	41,942	187,291	32,261	62,779	115,317	371,439	256,504	625,587	17,967	(NA)	(NA)
1959 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	41,341	179,230	32,976	63,591	118,510	371,770	253,316	611,132	13,990	(NA)	(NA)
1958 <sup>3 4</sup> .....	405	423	161	35,692	155,976	26,556	51,612	100,229	300,836	197,905	501,309	9,629	87	79
INDUSTRY 3644.—NONCURRENT CARRYING DEVICES														
1963.....	168	182	103	20,290	123,576	14,756	29,691	79,605	253,918	226,499	479,033	7,873	77	80
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,020	134,980	15,897	32,912	86,099	255,935	229,169	487,340	11,082	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,210	134,102	15,929	33,062	85,874	257,540	224,572	472,762	12,873	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,353	121,955	15,289	31,280	79,066	246,821	193,473	430,830	10,743	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,168	126,261	16,053	34,424	83,998	264,741	213,282	469,762	10,135	(NA)	(NA)
1958 (New SIC)	138	150	93	19,722	101,382	14,574	28,741	67,772	214,607	193,003	413,758	9,976	78	89
1958 <sup>4</sup> (Old SIC)	(NA)	556	236	50,689	236,137	37,853	73,690	155,112	474,348	357,282	840,886	18,480	(NA)	(NA)
1957 <sup>1 4</sup> .....	(NA)	(NA)	(NA)	49,694	223,186	39,526	76,981	154,258	461,639	337,922	790,077	25,174	86	87
1956 <sup>1 4</sup> .....	(NA)	(NA)	(NA)	49,270	214,813	40,306	80,595	154,101	455,391	359,074	793,066	20,889	(NA)	(NA)
1955 <sup>1 4</sup> .....	(NA)	(NA)	(NA)	49,145	194,797	40,245	78,752	140,430	426,591	302,323	704,676	15,273	(NA)	(NA)

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
	INDUSTRY 3644.—NONCURRENT CARRYING DEVICES—Continued													
1954 <sup>4</sup> .....	368	395	211	43,195	168,474	34,882	68,944	122,166	340,911	243,455	584,366	12,346	85	86
1953 <sup>1 4</sup> .....	(NA)	(NA)	(NA)	49,162	191,885	39,721	79,883	136,787	359,275	286,353	645,628	(NA)	(NA)	(NA)
1952 <sup>1 4</sup> .....	(NA)	(NA)	(NA)	49,000	175,618	39,159	77,704	122,972	355,009	250,291	605,300	(NA)	(NA)	(NA)
1951 <sup>1 4</sup> .....	(NA)	(NA)	(NA)	54,794	176,069	45,332	89,623	128,474	361,436	299,490	660,926	(NA)	(NA)	(NA)
1950 <sup>1 4</sup> .....	(NA)	(NA)	(NA)	44,364	136,921	36,811	73,174	97,568	272,540	227,021	499,561	(NA)	(NA)	(NA)
1949 <sup>1 4</sup> .....	(NA)	(NA)	(NA)	33,815	104,967	26,879	53,035	70,902	195,395	149,210	344,605	(NA)	(NA)	(NA)
1947 <sup>4</sup> .....	(NA)	344	(NA)	39,160	104,095	33,020	(NA)	78,655	218,567	165,879	384,446	(NA)	(NA)	(NA)
1939 <sup>4</sup> .....	(NA)	141	(NA)	(NA)	(NA)	14,024	(NA)	16,358	47,951	43,428	91,379	(NA)	(NA)	(NA)
1937 <sup>2 4</sup> .....	(NA)	124	(NA)	(NA)	(NA)	17,301	(NA)	19,884	48,485	46,906	95,391	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>2</sup>Comparable data are not available for earlier years.

<sup>3</sup>Data for 1958-1960 include establishments primarily engaged in the manufacture of electronic connectors. For 1961-1963 these establishments are included in industry 3679, Electronic Components, N.E.C.

<sup>4</sup>The two industries (3643 and 3644) shown were basically a single industry in 1957 and earlier years. However, due to a revision in the Standard Industrial Classification, a net gain of 16 establishments occurred in new industry 3643. These establishments were excluded from 1958 data for "old industry," so that comparable historical data may be presented.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
	INDUSTRY 3641.—ELECTRIC LAMPS												
Total.....	81	50	23,404	122,721	20,461	40,256	99,476	362,235	207,016	574,522	17,040	21,495	270,498
Middle Atlantic....	36	20	8,545	47,233	7,111	14,327	34,936	105,413	59,188	164,107	3,640	8,249	81,745
New York.....	10	4	499	1,984	413	854	1,421	4,086	6,301	10,074	88	428	2,724
New Jersey.....	18	10	6,432	36,640	5,237	10,451	26,128	67,803	36,531	101,743	2,056	6,143	55,263
Pennsylvania.....	8	6	1,614	8,609	1,461	3,022	7,387	33,524	16,356	52,290	1,496	1,678	23,758
East South Central.	8	7	3,118	14,673	2,811	5,439	12,302	41,997	26,315	70,383	2,623	13,246	188,753
All other divisions	37	23	11,741	60,815	10,539	20,490	52,238	214,825	121,513	340,032	10,777		
	INDUSTRY 3642.—LIGHTING FIXTURES												
Total.....	1,239	480	53,866	288,148	42,052	83,284	193,464	587,834	578,062	1,159,497	23,072	47,309	397,378
New England.....	72	32	3,903	18,573	3,015	5,738	12,687	35,230	32,747	67,704	1,156	3,294	26,654
Massachusetts....	40	17	2,562	11,800	1,992	3,725	8,153	22,968	21,806	44,704	660	2,032	16,734
Connecticut.....	26	11	892	4,552	656	1,295	3,011	6,677	7,505	14,077	212	890	6,390
Middle Atlantic....	521	206	17,642	86,668	14,101	27,193	58,745	177,421	175,546	351,907	4,862	15,513	120,356
New York.....	331	105	7,703	39,877	6,081	11,674	26,603	77,324	77,896	154,844	1,968	8,006	64,106
New Jersey.....	97	45	3,934	20,593	3,092	6,097	13,757	46,113	36,502	82,391	1,344	2,943	22,561
Pennsylvania.....	93	56	6,005	26,198	4,928	9,422	18,385	53,984	61,148	114,672	1,550	4,564	33,689
East North Central.	252	114	18,862	112,629	14,433	29,456	76,115	212,925	198,247	407,480	10,460	17,514	146,169
Ohio.....	60	28	5,192	30,071	3,745	7,518	18,972	58,318	58,406	114,301	1,496	4,768	41,833
Illinois.....	141	67	6,555	33,674	5,129	10,041	21,488	63,098	73,402	136,860	3,350	6,148	46,742
Michigan.....	22	9	1,144	6,082	922	1,844	4,361	11,159	13,960	25,198	349	645	7,797
West North Central.	39	20	1,791	9,685	1,337	2,690	5,790	18,257	16,632	34,802	654	1,694	12,075
Minnesota.....	7	2	119	740	99	215	484	2,075	569	2,645	72	( <sup>2</sup> )	( <sup>2</sup> )
Missouri.....	27	17	1,610	8,683	1,188	2,382	5,130	15,549	15,742	31,186	568	1,556	10,843
South Atlantic....	55	14	2,495	13,462	1,899	3,921	8,406	36,823	44,065	81,127	1,844	1,601	17,932
Florida.....	21	5	265	1,083	206	417	746	2,046	2,751	4,783	58	321	1,554
East South Central.	11	7	2,081	9,037	1,742	3,553	6,686	27,621	31,793	59,288	710	1,917	19,443
West South Central.	39	10	797	3,863	599	1,166	2,378	11,045	9,503	20,395	307	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	29	8	506	2,773	354	713	1,561	7,212	7,111	14,150	269	( <sup>2</sup> )	( <sup>2</sup> )
Mountain.....	10	2	187	1,058	151	294	639	2,048	2,565	4,581	308	( <sup>2</sup> )	( <sup>2</sup> )
Pacific.....	240	75	6,108	33,173	4,775	9,273	22,018	66,464	66,964	132,213	2,771	5,305	50,025
California.....	226	71	5,523	30,297	4,315	8,513	19,948	60,955	63,038	123,106	2,539	4,917	46,310
	INDUSTRY 3643.—CURRENT CARRYING DEVICES												
Total.....	449	180	35,424	175,185	27,239	53,474	115,097	355,643	257,175	615,980	14,119	35,692	300,836
New England.....	77	39	12,347	61,182	9,777	19,073	42,472	116,533	90,659	207,934	3,631	12,250	103,314
Massachusetts....	37	16	3,048	15,119	2,245	4,474	9,993	28,747	23,805	52,371	1,323	3,317	25,120
Connecticut.....	28	15	5,663	31,452	4,397	8,639	21,736	62,696	38,799	103,007	1,863	6,995	62,627
Middle Atlantic....	151	58	11,788	54,646	9,405	18,183	37,747	111,664	88,360	203,617	5,211	10,131	79,871
New York.....	85	33	6,984	32,408	5,604	10,808	22,538	53,931	47,267	101,954	2,868	6,171	42,098
New Jersey.....	36	10	2,487	11,456	2,015	3,895	8,143	21,369	19,557	43,816	1,342	2,136	15,663
Pennsylvania.....	30	15	2,317	10,782	1,786	3,480	7,066	36,364	21,536	57,847	1,001	1,824	22,110
East North Central.	105	48	8,341	43,029	5,924	11,869	25,333	86,122	54,443	139,804	2,934	8,832	81,154
Illinois.....	36	22	4,927	25,948	3,325	6,532	14,186	54,450	23,320	77,258	1,579	6,509	58,889
Michigan.....	16	4	330	1,444	281	581	1,115	2,100	6,798	8,879	201	( <sup>2</sup> )	( <sup>2</sup> )
West North Central.	23	10	1,293	7,876	882	1,869	4,266	18,711	12,487	30,979	1,436	893	6,915
Missouri.....	12	4	996	6,448	648	1,411	3,302	9,742	9,155	18,665	376	830	6,628
South .....	23	7	505	2,173	412	818	1,526	9,108	4,714	13,872	362	113	905
Texas.....	5	1	45	265	29	59	171	324	99	461	6	( <sup>2</sup> )	( <sup>2</sup> )
West.....	70	18	1,150	6,279	839	1,662	3,753	13,505	6,512	19,774	545	3,473	28,677
California.....	64	17	1,113	6,081	812	1,610	3,646	13,109	6,325	19,191	535	3,450	28,383

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
	INDUSTRY 3644.—NONCURRENT CARRYING DEVICES												
Total.....	182	103	20,290	123,576	14,756	29,691	79,605	253,918	226,499	479,033	7,873	19,722	214,607
Middle Atlantic....	56	32	8,294	50,506	5,783	11,511	31,354	104,573	88,760	192,634	3,221	9,276	99,891
New York.....	22	11	3,829	23,449	2,568	5,097	14,108	44,234	26,424	71,329	1,269	3,777	35,255
New Jersey.....	12	5	1,287	8,454	750	1,617	4,426	21,185	10,632	31,387	785	1,169	13,546
Pennsylvania.....	22	16	3,178	18,603	2,465	4,797	12,820	39,154	51,704	89,918	1,167	4,330	51,090
Pacific.....	32	12	1,308	8,282	1,064	2,017	5,761	18,564	20,321	38,673	530	1,117	13,968
All other divisions	94	59	10,688	64,788	7,909	16,163	42,490	130,781	117,418	247,726	4,122	9,329	100,748
Connecticut.....	9	5	940	5,530	747	1,589	3,834	11,316	6,416	17,822	399	730	6,880
Ohio.....	16	11	1,805	11,948	1,226	2,564	7,328	23,691	15,404	39,478	423	1,427	14,539
Alabama.....	3	3	513	3,341	336	728	1,872	5,925	4,537	10,459	174	( <sup>2</sup> )	( <sup>2</sup> )

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3641, Electric Lamps: New England—New Hampshire, 1 (100-249); Massachusetts, 5 (2,500-4,999); East North Central—Ohio, 10 (2,500-4,999); Indiana, 1 (1-19); Illinois, 6 (983); Michigan, 1 (1-19); Wisconsin, 1 (1-19); West North Central—Minnesota, 1 (1-19); Missouri, 2 (500-999); Kansas, 1 (1-19); South Atlantic—West Virginia, 1 (1,000-2,499); Florida, 1 (1-19); East South Central—Kentucky, 5 (1,366); Tennessee, 1 (500-999); Alabama, 1 (500-999); Mississippi, 1 (100-249); West South Central—Arkansas, 1 (500-999); Louisiana, 1 (1-19); Oklahoma, 1 (1-19); Mountain—Colorado, 1 (1-19); Arizona, 1 (1-19); Pacific—California, 1 (1-19).

SIC 3642, Lighting Fixtures: New England—New Hampshire, 1 (1-19); Vermont, 1 (250-499); Rhode Island, 4 (100-249); East North Central—Indiana, 12 (2,500-4,999); Wisconsin, 17 (1,000-2,499); West North Central—Iowa, 2 (1-19); Kansas, 3 (20-99); South Atlantic—Delaware, 2 (100-249); Maryland, 8 (20-99); District of Columbia, 4 (1-19); Virginia, 1 (20-99); West Virginia, 2 (250-499); North Carolina, 7 (945); South Carolina, 1 (20-99); Georgia, 9 (500-999); East South Central—Kentucky, 6 (500-999); Tennessee, 2 (20-99); Mississippi, 3 (1,000-2,499); West South Central—Arkansas, 4 (250-499); Louisiana, 4 (1-19); Oklahoma, 2 (1-19); Mountain—Colorado, 5 (133); Arizona, 3 (1-19); Utah, 2 (20-99); Pacific—Washington, 6 (529); Oregon, 6 (20-99); Hawaii, 2 (1-19).

SIC 3643, Current Carrying Devices: New England—Maine, 1 (250-499); New Hampshire, 1 (1-19); Rhode Island, 10 (2,500-4,999); East North Central—Ohio, 29 (1,000-2,499); Indiana, 18 (1397); Wisconsin, 6 (20-99); West North Central—Minnesota, 8 (245); Iowa, 2 (20-99); Kansas, 1 (20-99); South Atlantic—Maryland, 2 (20-99); District of Columbia, 1 (1-19); North Carolina, 7 (284); South Carolina, 1 (20-99); Florida, 4 (20-99); East South Central—Kentucky, 1 (20-99); West South Central—Louisiana, 1 (1-19); Oklahoma, 1 (1-19); Texas, 5 (20-99); Mountain—Wyoming, 1 (1-19); Colorado, 2 (20-99); Arizona, 2 (1-19); Pacific—Oregon, 1 (1-19).

SIC 3644, Noncurrent Carrying Devices: New England—Massachusetts, 8 (278); East North Central—Indiana, 1 (250-499); Illinois, 21 (3,695); Michigan, 7 (250-499); Wisconsin, 3 (100-249); West North Central—Minnesota, 2 (250-499); Missouri, 5 (500-999); South Atlantic—Maryland, 1 (20-99); West Virginia, 2 (500-999); Georgia, 1 (100-249); Florida, 2 (20-99); East South Central—Kentucky, 1 (20-99); Tennessee, 2 (20-99); Mississippi, 1 (1,000-2,499); West South Central—Louisiana, 1 (1-19); Texas, 6 (250-499); Mountain—Colorado, 2 (1-19); Pacific—Oregon, 2 (1-19); California, 30 (1,000-2,499).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

TABLE 3. Detailed Statistics: 1963

Item	Electric lamps (SIC 3641)	Lighting fixtures (SIC 3642)	Current carrying devices (SIC 3643)	Noncurrent carrying devices (SIC 3644)
Primary product specialization ratio <sup>1</sup> .....	.95	.93	.80	.77
Coverage ratio <sup>2</sup> .....	.96	.93	.83	.80
Establishments, total.....number..	81	1,239	449	182
With 1 to 19 employees.....do....	31	759	269	79
With 20 to 99 employees.....do....	8	368	113	58
With 100 employees or more.....do....	42	112	67	45
Proprietors and working partners.....do....	19	458	144	22
All employees (average for the year).....do....	23,404	53,866	35,424	20,290
Payroll (all employees), total for year.....\$1,000..	122,721	288,148	175,185	123,576
Production workers:				
Average for the year.....number..	20,461	42,052	27,239	14,756
March.....do....	20,514	41,355	26,773	14,544
May.....do....	20,479	39,782	27,021	14,758
August.....do....	20,476	42,542	27,374	14,881
November.....do....	20,362	44,659	27,830	14,885
Man-hours.....1,000..	40,256	83,284	53,474	29,691
January-March.....do....	10,252	19,881	13,182	7,189
April-June.....do....	10,398	20,185	13,710	7,625
July-September.....do....	8,996	20,958	12,655	7,325
October-December.....do....	10,610	22,260	13,927	7,552
Wages.....\$1,000..	99,476	193,464	115,097	79,605
Cost of materials, etc., total.....do....	207,016	578,062	257,175	226,499
Materials, parts, containers, and supplies consumed..do....	183,990	538,801	225,474	203,364
Cost of resales.....do....	18,115	22,082	19,762	16,430
Fuels consumed.....do....	1,758	3,630	1,323	2,422
Electric energy:				
Purchased:				
Quantity.....million kw.-hrs..	239	387	193	186
Cost.....\$1,000..	2,837	5,571	2,905	2,598
Generated less sold.....million kw.-hrs..	-	(D)	-	-
Contract work.....\$1,000..	328	7,978	7,711	1,685
Value of shipments (including resales), total.....do....	574,522	1,159,497	615,980	479,033
Value of resales.....do....	21,464	29,523	28,132	19,098
Value added by manufacture, adjusted.....do....	362,235	587,834	355,643	253,918
Manufacturers' inventories:				
Beginning of year, total.....do....	69,167	147,258	102,326	99,015
Finished products.....do....	53,970	49,991	38,181	47,654
Work-in-process.....do....	1,449	44,106	34,377	24,853
Materials, supplies, fuel, etc.....do....	13,748	53,161	29,768	26,508
End of year, total.....do....	63,744	157,100	99,549	101,517
Finished products.....do....	48,571	52,763	37,905	48,390
Work-in-process.....do....	1,577	47,733	32,461	25,501
Materials, supplies, fuel, etc.....do....	13,596	56,611	29,183	27,626
Expenditures for plant and equipment, total.....do....	17,425	24,473	15,616	8,733
New, total.....do....	17,040	23,072	14,119	7,873
New structures and additions to plant.....do....	4,124	7,751	2,479	938
New machinery and equipment.....do....	12,916	15,321	11,640	6,935
Used plant and equipment.....do....	385	1,401	1,497	860
Selected operating ratios:				
Payroll/Total employment.....	5,243	5,349	4,945	6,090
Production workers/Total employment.....	.87	.78	.77	.73
Man-hours/Production workers.....	1,967	1,981	1,963	2,012
Production worker wages/Man-hours.....	2.47	2.32	2.15	2.68
Cost of materials and payrolls/Total value of shipments....	.57	.75	.70	.73
Cost of materials/Total value of shipments.....	.36	.50	.42	.47
Adjusted value added/Total employment.....	15,477	10,915	10,040	12,514
Salaries and wages/Adjusted value added.....	.34	.49	.49	.49

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3641.—ELECTRIC LAMPS											
Establishments.....number..	81	18	6	7	3	5	10	14	16	1	1
All employees:											
Total.....do....	23,404	31	41	101	93	343	1,534	5,059	<u>16,202</u>	(D)	(D)
Payroll.....\$1,000..	122,721	146	173	456	390	1,365	6,643	25,534	<u>88,014</u>	(D)	(D)
Value added, adjusted.....do....	362,235	286	470	1,176	686	4,016	16,991	84,051	<u>254,559</u>	(D)	(D)
Value of shipments.....do....	574,522	440	773	1,854	1,234	10,235	28,904	139,700	<u>391,382</u>	(D)	(D)
Capital expenditures, new...do....	17,040	<u>11,892</u>	(D)	(D)	(D)	(D)	(D)	1,658	<u>13,490</u>	(D)	(D)
INDUSTRY 3642.—LIGHTING FIXTURES											
Establishments.....number..	1,239	384	195	180	234	134	74	21	16	-	1
All employees:											
Total.....do....	53,866	690	1,339	2,472	7,351	9,080	11,101	7,347	<u>14,486</u>	-	(D)
Payroll.....\$1,000..	288,148	3,907	6,172	11,672	35,770	45,420	57,463	39,768	<u>87,976</u>	-	(D)
Value added, adjusted.....do....	587,834	9,003	13,085	23,359	69,641	87,706	124,377	77,974	<u>182,689</u>	-	(D)
Value of shipments.....do....	1,159,497	19,536	26,877	50,589	158,731	182,780	249,345	149,560	<u>322,079</u>	-	(D)
Capital expenditures, new...do....	23,072	434	429	955	2,225	3,144	3,878	3,025	<u>8,982</u>	-	(D)
INDUSTRY 3643.—CURRENT CARRYING DEVICES											
Establishments.....number..	449	149	61	59	71	42	36	18	6	6	1
All employees:											
Total.....do....	35,424	240	393	814	2,247	3,060	5,602	6,761	4,297	<u>12,010</u>	(D)
Payroll.....\$1,000..	175,185	1,075	1,648	3,708	10,325	15,759	27,852	33,379	23,993	<u>57,446</u>	(D)
Value added, adjusted.....do....	355,643	2,704	3,486	7,700	20,920	40,414	60,289	66,457	44,275	<u>109,398</u>	(D)
Value of shipments.....do....	615,980	5,400	6,152	13,653	37,635	71,206	110,061	120,488	86,533	<u>164,852</u>	(D)
Capital expenditures, new...do....	14,119	152	135	289	840	2,607	2,055	1,966	971	<u>2,104</u>	(D)
INDUSTRY 3644.—NONCURRENT CARRYING DEVICES											
Establishments.....number..	182	31	18	30	26	32	21	16	6	2	-
All employees:											
Total.....do....	20,290	58	125	432	756	2,222	3,609	5,737	<u>7,351</u>	(D)	-
Payroll.....\$1,000..	123,576	246	635	2,165	4,483	11,860	21,265	36,787	<u>46,135</u>	(D)	-
Value added, adjusted.....do....	253,918	1,434	1,183	4,483	9,155	28,200	38,695	73,025	<u>97,743</u>	(D)	-
Value of shipments.....do....	479,033	1,196	2,476	9,114	17,603	58,422	92,271	136,428	<u>161,523</u>	(D)	-
Capital expenditures, new...do....	7,873	31	42	190	405	1,569	903	2,061	<u>2,672</u>	(D)	-

- Represents Zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

<sup>1</sup> Includes capital expenditures for plants under construction but not in operation which constitute \$1,000-2,000 thousand of the total for the size class.

**TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B+C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3641	Electric lamps.....1963..	574,522	522,669	30,024	21,829	95	545,947	522,669	23,278	96
	1958..	417,516	384,151	24,756	8,609	94	393,597	384,151	9,446	98
3642	Lighting fixtures.....1963..	1,159,497	1,039,211	83,846	36,440	93	1,116,064	1,039,211	76,853	93
	1958..	826,595	721,197	69,896	35,502	91	765,413	721,197	44,216	94
3643	Current carrying devices .....1963..	615,980	464,160	116,631	35,189	80	561,845	464,160	97,685	83
	1958..	501,309	407,135	72,860	21,314	85	448,491	(NA)	(NA)	(NA)
3644	Noncurrent carrying devices.....1963..	479,033	352,016	103,206	23,811	77	439,343	352,016	87,327	80
	1958..	413,758	304,734	83,694	25,330	78	341,570	304,734	36,836	89

NOTE: See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>Not strictly comparable with 1963 because of the reclassification of electronic connectors. See text for further explanation.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)

miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Electric lamps (SIC 3641)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Current carrying devices (SIC 3643)	Other industries
36410	<b>ELECTRIC LAMPS INDUSTRY</b>				36430	<b>CURRENT CARRYING DEVICES INDUSTRY</b>			
	Total shipments and receipts of the industry.....	(X)	574,522	(X)		Total shipments and receipts of the industry.....	(X)	615,980	(X)
	Electric lamps.....	545,947	522,669	<sup>1</sup> 23,278		Current carrying wiring devices.....	561,845	464,160	<sup>9</sup> 97,685
	Secondary products.....	(X)	<sup>2</sup> 30,024	(X)		Secondary products.....	(X)	116,631	(X)
	Miscellaneous receipts.....	(X)	21,829	(X)		Low voltage panelboards and distribution boards.....	(X)	7,040	(X)
	Resales.....	(X)	21,464	(X)		Electric conduit and conduit fittings.....	(X)	7,083	(X)
	All other miscellaneous receipts.....	(X)	365	(X)		Other noncurrent carrying devices. Other electronic components, n.e.c.....	(X)	4,040	(X)
						Appliance wire and cord (made from purchased materials).....	(X)	17,303	(X)
						All other secondary products.....	(X)	12,624	(X)
						Miscellaneous receipts.....	(X)	<sup>10</sup> 68,541	(X)
36421	<b>LIGHTING FIXTURES INDUSTRY</b>				36441	<b>NONCURRENT CARRYING DEVICES INDUSTRY</b>			
	Total shipments and receipts of the industry.....	(X)	1,159,497	(X)		Total shipments and receipts of the industry.....	(X)	479,033	(X)
	Primary products.....	1,116,064	1,039,211	76,853		Primary products.....	439,343	352,016	87,327
	Residential type electric fixtures, except portable.....	158,799	154,358	4,441		Pole line and transmission hardware.....	97,901	84,536	13,365
	Commercial and institutional type electric fixtures.....	299,181	289,944	<sup>3</sup> 9,237		Electric conduit and conduit fittings.....	242,181	177,227	<sup>11</sup> 64,954
	Industrial type electric fixtures.....	76,134	67,210	<sup>4</sup> 8,924		Other noncurrent carrying wiring devices and supplies.....	92,836	83,828	<sup>12</sup> 9,008
	Vehicular lighting equipment, electric.....	157,390	143,675	<sup>5</sup> 13,715		Noncurrent carrying devices.....	6,425	6,425	(X)
	Floodlighting and area lighting equipment.....	134,764	113,059	<sup>6</sup> 21,705		Secondary products.....	(X)	103,206	(X)
	Other electric and nonelectric lighting equipment.....	84,683	67,912	<sup>7</sup> 16,771		Steel pipe and tube (not made in steel mills).....	(X)	5,132	(X)
	Portable residential type electric fixtures.....	160,188	158,199	1,989		Fabricated metal products, n.e.c.....	(X)	4,495	(X)
36420	Lighting fixtures, n.s.k.....	44,925	44,854	71	36442	Outdoor lighting equipment.....	(X)	11,461	(X)
	Secondary products.....	(X)	83,846	(X)		Current carrying devices.....	(X)	24,114	(X)
	Specialty transformers and fluorescent ballasts.....	(X)	5,510	(X)		All other secondary products.....	(X)	<sup>13</sup> 58,004	(X)
	Current carrying wiring devices..	(X)	4,204	(X)		Miscellaneous receipts.....	(X)	23,811	(X)
	All other secondary products.....	(X)	<sup>8</sup> 74,132	(X)		Contract work.....	(X)	1,702	(X)
	Miscellaneous receipts.....	(X)	36,440	(X)		Resales.....	(X)	19,098	(X)
	Contract work.....	(X)	3,888	(X)		Other miscellaneous receipts.....	(X)	3,011	(X)
	Resales.....	(X)	29,523	(X)					
	Other miscellaneous receipts.....	(X)	3,029	(X)					

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Includes shipments of over \$2 million by each of the following industries, but the exact values are withheld to avoid disclosing figures for individual companies: 3642, Lighting Fixtures; 3661, Telephone; Telegraph Apparatus; and 3699, Electrical Products, N.E.C.

<sup>2</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 35595, Other special industry machinery and equipment, and 36992, Lamp bulb components (except glass blanks) and electrical products.

<sup>3</sup>Includes shipments of over \$2 million by industry 3229, Pressed and Blown Glass, N.E.C. However, the exact value is withheld to avoid disclosing individual company figures.

<sup>4</sup>Includes shipments of over \$2 million by each of the following industries, but the exact values are withheld to avoid disclosing individual company figures: 3229, Pressed and Blown Glass, N.E.C., and 3644, Noncurrent Carrying Devices.

<sup>5</sup>Includes shipments of over \$2 million by industry 3717, Motor Vehicles and Parts. However, the exact value is withheld to avoid disclosing individual company figures.

<sup>6</sup>Includes shipments of \$11,461 thousand by industry 3644, Noncurrent Carrying Devices. In addition, includes shipments of over \$2 million by industry 3441, Fabricated Structural Steel. However, the exact value is withheld to avoid disclosing individual company figures.

<sup>7</sup>Includes shipments of \$2,651 thousand by industry 3692, Primary Batteries, Dry and Wet. In addition, includes shipments of over \$2 million by industry 3433, Heating Equipment, Except Electric. However, the exact value is withheld to avoid disclosing individual company figures.

<sup>8</sup>Includes shipments of over \$2 million for each of the following product classes, the exact values of which are withheld to avoid disclosing individual company figures: 32315, Mirrors; 24990, Fabricated metal products, n.e.c.; 36112, Test equipment for testing electrical, radio, and communication circuits and motors; 26391, Capacitors for industrial use (except for electronic applications); 36410, Electric lamps (bulbs only) including sealed beam lamps; 36920, Primary batteries, dry and wet; 37175, Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers.

Footnotes continued on next page.

## Footnotes for Table 5B—36C—Continued

<sup>9</sup>Includes \$5,824 thousand shipped by industry 3613, Switchgear and Switchboards; \$4,204 thousand shipped by industry 3642, Lighting Fixtures; \$24,327 thousand shipped by industry 3644, Noncurrent Carrying Devices; and \$10,615 thousand shipped by industry 3679, Electronic Components, N.E.C. In addition, the following industries each shipped \$2 million or more but are withheld to avoid disclosing individual company figures: industry 3264, Porcelain Electric Supplies; industry 3356, Rolling and Drawing, N.E.C.; industry 3544, Special Dies and Tools; industry 3612, Transformers; industry 3622, Industrial Controls; industry 3629, Electric Industrial Goods, N.E.C.; industry 3661, Telephone; Telegraph Apparatus; industry 3694, Engine Electrical Equipment; and, industry 3871, Watches and Clocks.

<sup>10</sup>Includes the following product classes each of which total \$2 million or more, but are withheld to avoid disclosing individual company figures: 34990, Fabricated metal products, n.e.c.; 36131, Switchgear, including power switchgear assemblies and other switching and interrupting devices 2,300 volts and over; 36134, Fuses and fuse equipment under 2,300 volts; 36220, General industry power circuit devices and controls; 36233, Resistance welders, components, accessories, and electrodes; 36945, Other complete electrical equipment for internal combustion engines; 36992, Lamp bulb components (except blanks) and other electrical products; and, 39120, Jewelers' findings and materials.

<sup>11</sup>Includes \$9,742 thousand shipped by industry 3317, Steel Pipe and Tube; \$12,161 thousand shipped by industry 3352, Aluminum Rolling and Drawing; \$4,182 thousand by industry 3357, Nonferrous Wire Drawing; \$5,799 thousand by industry 3613, Switchgear and Switchboards; and, \$7,083 thousand shipped by industry 3643, Current Carrying Devices. In addition, the following industries each shipped \$2 million or more, but exact values are withheld to avoid disclosing individual company figures: industry 3312, Blast Furnaces and Steel Mills, and industry 3351, Copper Rolling and Drawing.

<sup>12</sup>Includes \$4,040 thousand shipped by industry 3643, Current Carrying Devices.

<sup>13</sup>Includes the following product classes each of which total \$2 million or more but are withheld to avoid disclosing individual company figures: 30692, Rubber hose and tubing; 33126, Steel pipe and tube (produced in steel mills); 33579, Other insulated wire and cable, n.e.c.; 34231, Mechanics' hand service tools; 34522, Special industrial fasteners (nonstandard); 35616, Parts and attachments for pumps, air and gas compressors, and pumping equipment; 36131, Switchgear, including power switchgear assemblies and other switching and interrupting devices 2,300 volts and over; 36423, Industrial type electric fixtures; 36623, Intercommunication equipment (except telephone and telegraph) and electric alarm and signal systems and devices; and, 37294, Receipts and development on missile parts and components, n.e.c.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958**

Product code	Product	1963			1958		
		Production for all purposes (1,000 bulbs)	Total shipments, including interplant transfers		Production for all purposes (1,000 bulbs)	Total shipments, including interplant transfers	
			Quantity (1,000 bulbs)	Value (\$1,000)		Quantity (1,000 bulbs)	Value (\$1,000)
3641- --	ELECTRIC LAMPS, (BULBS).....	(X)	(X)	545,947	(X)	(X)	393,597
36410 10	Electric lamps, except cold cathode fluorescent: As reported in the census of manufactures.....	(X)	(X)	543,565	(X)	(X)	390,386
	As reported on Census Quarterly Form M36B.....	3,060,337	3,017,245	550,963	2,321,063	2,392,320	395,577
	Photographic incandescent, total.....	718,226	714,568	63,843	585,529	584,617	49,289
	Photoflash, total <sup>1</sup> .....	707,623	704,284	47,463	574,920	572,768	37,438
36410 21	Screw base (including blue).....	3,780	3,304	471	8,965	10,879	1,091
36410 22	Midget (including blue).....	186,942	195,773	14,910	401,132	399,418	27,156
36410 23	Miniature (including blue).....	188,877	191,393	12,933	164,823	162,470	9,191
36410 27	All glass (AG-1).....	328,024	313,814	19,149	(NA)	(NA)	(NA)
	Projection, total.....	6,349	6,118	12,368	4,139	4,885	8,102
36410 28	Bulk packed.....	1,747	1,604	3,126	4,139	4,885	8,102
36410 29	All other.....	4,602	4,514	9,242			
36410 25	Photoflood, photo-enlarger, and other photolamps.....	4,254	4,166	4,012	6,470	6,964	3,749
	Large incandescent, except photographic and Christmas tree, total.....	1,253,528	1,236,303	216,547	1,051,675	1,085,119	165,767
	General lighting: 15-150 watt, 100-130 volts:						
36410 08	White lamps.....	163,129	156,171	20,453	765,538	777,200	79,499
36410 09	All other.....	746,285	734,654	84,656			
36410 12	Above 150 watt, 100-130 volts.....	62,322	61,287	17,728	57,458	61,641	16,911
36410 13	3-light, 100-130 volts.....	33,963	33,703	10,013	23,080	27,323	7,758
	Reflector, 100-130 volts, total.....	30,195	29,119	28,360	21,181	20,983	19,233
36410 14	Par type (pressed volts).....	16,065	15,488	17,491	21,181	20,983	19,233
36410 19	R type (blown glass).....	14,130	13,631	10,869			
36410 15	Infrared (all types), 100-130 volts.....	5,423	4,363	4,751	3,400	3,687	2,477
36410 16	Traffic and street lighting, 100-130 volts.....	14,392	15,448	5,269	13,141	12,359	4,538
36410 17	Rough and vibration service, 100-130 volts.....	28,829	28,449	6,533	31,197	26,722	5,778
36410 18	All other large incandescent (special purpose) <sup>2</sup> .....	168,981	173,109	38,784	136,680	155,204	29,573
	Miniature incandescent, total.....	674,109	653,920	94,390	391,837	415,710	64,618
	Automobile glass and metal sealed beams: Under 6 inches.....	54,489	52,618	31,217	28,161	27,467	17,085
36410 30	Bulk packed.....	54,489	31,987	18,092	28,161	27,467	17,085
36410 31	All other.....		20,631	13,125			
	6 inches and over.....	24,080	22,725	15,989	24,889	26,728	19,108
36410 32	Bulk packed.....	24,080	5,619	3,633	24,889	26,728	19,108
36410 37	All other.....		17,106	12,356			
	Automobile miniature other than glass and metal sealed beams	414,562	405,635	29,099	226,824	236,138	17,755
36410 33	Bulk packed.....	414,562	257,068	16,804	226,824	236,138	17,755
36410 36	All other.....		148,567	12,295			
36410 34	Flashlight.....	68,250	65,782	3,569	51,430	62,544	3,360
36410 35	Radio panel.....	48,445	47,978	2,275	27,782	29,187	1,282
36410 39	All other miniature <sup>3</sup> .....	64,283	59,182	12,241	32,751	33,646	6,028
	Electrical discharge (except Christmas tree), total.....	245,990	241,401	166,938	142,850	146,117	105,684
36410 41	Germicidal, sterile, bacterial, and ozone.....	1,216	1,001	1,098	833	1,144	981
36410 42	Sun lamps (bulbs only).....	428	391	1,707	566	497	2,423
	Fluorescent, hot cathode, total.....	179,041	175,180	139,294	112,519	114,769	88,674
36410 43	Slimline.....	32,503	31,728	37,842	21,690	21,927	30,479
36410 46	Circular.....	5,079	5,001	7,865			
36410 47	High output 800 milliamper and over <sup>4</sup> .....	8,222	7,794	16,070			
	Other fluorescent:				90,829	92,842	58,195
36410 44	Below 40 watt.....	32,198	30,996	17,781			
36410 45	40 watt and over <sup>5</sup> .....	101,039	99,661	59,736			
	Miscellaneous electrical discharge, total.....	65,305	64,829	24,839	28,932	29,707	13,606
36410 51	Glow.....	63,013	62,644	5,783	28,079	28,798	2,753
36410 52	Mercury.....	2,244	2,138	17,321	800	853	8,823
36410 53	Sodium, photochemical and other miscellaneous discharge...	48	47	1,735	53	56	2,030
36410 55	Christmas tree lamps (all types).....	168,484	171,053	9,245	149,172	160,760	10,216
36410 63	Cold cathode fluorescent lamps for illumination and decoration, including custom built lamps, but excluding sign applications....	(X)	(X)	2,382	(X)	(X)	3,211

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Value of shipments including interplant transfers (\$1,000)	
		1963	1958
3642- --	LIGHTING FIXTURES.....	1,116,064	765,413
36421 10	Electric lighting fixtures, residential type (except portable): As reported in the census of manufactures.....	158,799	6114,804
	As reported on Census Annual Form MA-36L.....	153,616	(X)
	Incandescent (excluding PAR lamp holders and floodlights): Interior (including bath or kitchen):		
36421 11	Ceiling or pendant.....	103,001	50,194
36421 13	Wall or bracket.....	16,512	9,358
	Outdoor:		
36421 15	Designed for attachment to house.....	17,051	} 11,929
36421 17	Not designed for attachment to house (garden, patio, walkway, or yard lights).....	7,362	
36421 61	Fluorescent.....	9,690	12,970
36421 00	Electric lighting fixtures, residential type, n.s.k.....	(X)	630,353
36422 10	Electric lighting fixtures, commercial and institutional type (except spotlights): As reported in the census of manufactures.....	299,181	7168,083
	As reported on Census Annual Form MA-36L.....	302,366	(X)
	Incandescent: Utilitarian type and ornamental type (except portable) (primarily for public buildings, banks, stores, office buildings, schools, auditoriums, churches, theaters, etc.):		
36422 11	Surface or pendant.....	27,673	20,848
36422 15	Recessed.....	24,460	18,815
36422 18	Specialized custom lighting fixtures, chandeliers, church lighting, etc. (except portable).....	9,017	} 5,262
36422 19	Other incandescent fixtures, such as interior display, portable lamps, and PAR lamp holders.....	20,552	
	Fluorescent (except portable):		
36422 51	Recessed air handling.....	19,434	} 28,895
36422 53	Recessed nonair handling.....	44,506	
36422 54	Striplights.....	33,413	} 94,263
36422 55	Luminous or louvered ceiling systems.....	11,568	
36422 57	Other (such as plastic wrap around, surface and pendant type metal or plastic louvered ceiling systems, etc.).....	109,009	
36422 61	Indoor signs, including electro-luminescence (exit, directional, etc.).....	2,734	(NA)
36423 10	Electric lighting fixtures, industrial type: As reported in the census of manufactures.....	76,134	62,393
	As reported on Census Annual Form MA-36L.....	77,864	(X)
	Incandescent:		
36423 11	General lighting (except portable).....	7,639	} 11,553
36423 15	Other industrial types (except portable) such as explosion-proof, vapor-proof, dust-tight, etc..	8,665	
36423 21	Portable.....	3,483	
	Fluorescent:		
36423 13	General lighting (except portable).....	50,646	} 40,880
36423 17	Other industrial types (except portable) such as explosion-proof, vapor-proof, dust-tight, etc..	4,735	
36423 23	Portable.....	586	
36423 14	Mercury (general lighting).....	2,110	} 9,960
36423 00	Electric lighting fixtures, industrial type, n.s.k.....	(X)	
36424 10	Vehicular lighting equipment (electric): As reported in the census of manufactures.....	157,390	105,970
	As reported on Census Annual Form MA-36L.....	157,426	(X)
	Motor vehicle lighting equipment, incandescent:		
	Spot, fog, auxiliary lighting equipment:		
36424 11	Shipments to motor vehicle manufacturers (auto, truck, bus, trailer, etc.).....	5,040	2,968
36424 15	Shipments to all other customers.....	4,175	5,338
	Other motor vehicle lighting equipment (headlight fixtures, except bulbs, parking lights, dome lights, taillights, etc.):		
36424 21	Shipments to motor vehicle manufacturers (auto, truck, bus, trailer, etc.).....	124,265	} 879,839
36424 25	Shipments to all other customers.....	8,000	
36424 29	Other vehicular lighting equipment (including fluorescent fixtures, such as aircraft, watercraft, railway, locomotive railroad car, street car, etc.).....	15,946	915,950
36424 00	Vehicular lighting equipment, n.s.k.....	(X)	1,875
36425 10	Outdoor lighting equipment (excluding lamps): As reported in the census of manufactures.....	134,764	1076,308
	As reported on Census Annual Form MA-36L.....	131,547	(X)
	Street and highway lighting luminaries:		
36425 11	Incandescent (filament and quartz iodine).....	7,456	12,410
	Mercury (including integrally-mounted ballasts):		
36425 13	Open.....	11,859	} 5,104
36425 14	Closed.....	23,586	
36425 15	All other light sources, including fluorescent.....	6,086	3,784

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Value of shipments including interplant transfers (\$1,000)	
		1963	1958
3642- --	LIGHTING FIXTURES—Continued		
	Outdoor lighting equipment (excluding lamps)—Continued		
	Area and sports lighting luminaries:		
	Floodlights (excluding PAR lampholders) (including service stations floodlights, underwater, fountain, and swimming pool):		
36425 17	Incandescent, filament.....	8,897	13,245
36425 18	Incandescent, quartz iodine.....	2,692	
36425 19	Mercury (including integrally-mounted ballasts).....	8,024	
36425 21	All other light sources, including fluorescent.....	10,707	
	Post top decorative area lighting fixtures (including PAR lampholders):		
36425 23	Incandescent (filament and quartz iodine).....	1,490	9,051
36425 25	Mercury (including integrally-mounted ballasts).....	1,339	
36425 27	All other light sources (including fluorescent).....	4,481	
	Poles, standards, newels, brackets, and accessories:		
36425 39	For area and sports lighting.....	3,457	9,051
36425 41	For other outdoor lighting.....	5,191	
	Aviation ground lighting equipment (for fixed based airports):		
36425 31	Runway approach lighting.....	2,485	4,693
36425 33	Runway (except runway approach), taxiway, and ramp lighting.....	1,773	
	Poles, standards, newels, brackets, and accessories, for street and highway lighting:		
36425 35	Metal, concrete, and integral brackets.....	21,143	22,304
36425 37	Wood pole brackets.....	2,180	
	Other floodlighting and area lighting equipment:		
36425 43	Spotlights (including indoor and stage lighting equipment but excluding vehicular spotlights).....	4,544	3,852
36425 45	All other floodlighting and area lighting equipment.....	4,159	812
36425 00	Outdoor lighting equipment (excluding lamps), n.s.k.....	(X)	1,053
36426 --	Other electric and nonelectric lighting equipment (including hand portable equipment) and parts and accessories.....	84,683	68,872
	Incandescent hand portable lighting equipment, except parts:		
36426 11	Flashlights and flashlight lanterns (one to five cells).....	20,063	13,661
36426 19	Other, such as miners' lights, emergency warning lights, generator flashlights, etc.....	5,966	3,650
36426 21	Other electric lighting equipment, including electrical discharge such as mercury vapor (other than street and highway lighting equipment), sodium vapor etc. excluding signs.....	5,315	3,621
36426 31	Other incandescent electric lighting equipment including marine markers or beacons, railway and other vehicular route lighting equipment, parts and accessories such as reflectors, etc., but excluding wire devices sold separately.....	11,054	8,309
36426 71	Parts and accessories for fluorescent lighting equipment, excluding tubes, ballasts, starting switches, and lampholders, but including reflectors, etc.....	7,548	3,118
36426 75	Other fluorescent lighting equipment, complete units, including processing and technical equipment..	8,815	2,216
	Nonelectric lighting equipment, including parts:		
36426 81	Kerosene and gasoline lamps and lanterns.....	8,247	6,456
36426 85	Parts and accessories for nonelectric lighting equipment, including reflectors and fittings, incandescent mantles, etc.....	6,160	7,612
36426 89	Other nonelectric lighting fixtures and equipment, complete units, including carbide lamps of all types.....	3,264	3,454
36426 91	Ultraviolet and infrared health lamp fixtures, excluding lamp bulbs sold separately.....	1,121	1,885
36426 00	Other electric and nonelectric lighting equipment (including hand portable equipment) and parts and accessories, n.s.k.....	7,130	14,890
36427 --	Residential type electric fixtures (portable only).....	160,188	<sup>6</sup> 112,540
	Incandescent portable lamps, complete:		
	Complete with shade:		
36427 21	Floor, bridge, and torch lamps.....	36,110	25,765
36427 22	Wall lamps, including adjustable types.....	5,094	6,664
36427 23	Table lamps.....	70,688	61,275
36427 29	Other, including boudoir.....	16,004	12,715
36427 32	Lamps sold without shades, including floor, bridge, table, etc.....	5,687	2,933
36427 61	Portable lamps (desk, etc.) fluorescent.....	10,454	3,188
36427 00	Residential type electrical fixtures (portable only), n.s.k.....	16,151	( <sup>6</sup> )
36420 00	Lighting fixtures, n.s.k.....	44,925	56,443

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3643- --	CURRENT CARRYING WIRING DEVICES.....	.....	(X)	561,845	(X)	<sup>12</sup> 448,491
	Current carrying wiring devices:					
36430 00	As reported in the census of manufactures.....	.....	(X)	561,845	(X)	514,921
	As reported on Census Annual Form MA-36K.....	.....	(X)	533,033	(X)	(X)
	Lampholders, except automotive:					
	Incandescent:					
36430 01	Brass or metal shell lampholders (excluding outlet box) all sizes.....	1,000 units...	66,876	10,975	47,751	6,672
36430 02	Outlet box lampholders.....	...do.....	11,109	3,022	14,049	4,200
36430 03	Other incandescent lampholders (including lumilane and weatherproof).....	...do.....	206,962	18,201	151,205	12,931
36430 05	Fluorescent (all types).....	...do.....	135,270	12,008	81,928	7,922
	Convenience and power outlets:					
	Flush (all types, designed for mounting in outlet boxes):					
36430 11	15 amperes and under.....	...do.....	90,909	21,620	87,660	18,088
36430 13	Over 15 amperes.....	...do.....	20,655	5,569	14,976	3,330
36430 17	Appliance and special application outlets (installed generally as a component part of an electrical appliance or piece of electrical equipment).....	...do.....	18,880	3,134	13,806	2,864
36430 14	Surface raceway outlets.....	...do.....	39,380	6,252	29,361	4,329
36430 19	Surface (except raceway) outlets, and all other outlets (including pin and sleeve, and circuit breaking types).....	...do.....				
36430 21	Attachment plug caps, connector bodies, and motor bases, adapters, and miscellaneous current taps.....	.....	(X)	26,998	(X)	34,001
	Switches (except knife, time, solenoid, and automotive):					
36430 23	Appliance and special application switches (installed generally as a component part of an electrical appliance or piece of electrical equipment--except precision snap-acting switch type).....	1,000 units...	93,497	58,170	73,558	43,155
	General purpose flush switches, except low voltage remote control (designed for mounting in outlet boxes):					
36430 25	15 amperes and under.....	...do.....	66,852	17,636	45,628	14,103
36430 27	Over 15 amperes.....	...do.....	12,021	5,411	6,025	3,008
36430 36	Precision (1/8" gap or less) snap-acting switches excluding limit switches.....	...do.....	43,556	46,083	(X)	( <sup>13</sup> )
36430 28	All other (including low voltage (remote control), surface canopy, fixture, and portable lamp switches-except knife, time, solenoid, and automotive switches).....	.....	(X)	15,053	(X)	8,855
36430 39		.....	(X)	15,053	(X)	8,855
36430 51	Fluorescent starters.....	1,000 units...	78,594	8,374	66,072	8,789
36430 71	Lighting arresters and choke coils for power transmission and distribution circuits and for railway signaling power circuits.....	.....	(X)	25,021	(X)	20,514
36430 73	Rail bonds for both propulsion and signal circuits.....	.....	(X)	1,677	(X)	3,623
36430 75	Metal contacts, precious and other.....	Billion units.	4.0	57,239	(NA)	34,201
	Wire connectors:					
36430 81	Solderless (including industrial and service).....	1,000 units...	(NA)	87,646	5,929,566	59,359
36430 85	Other (including solder lugs and splicing sleeves).....	...do.....	(NA)	44,435	176,074	57,000
36430 98	Other current carrying wiring devices, including rosettes, etc..	.....	(X)	49,733	(X)	<sup>13</sup> 60,995
36430 91	Lightning rods.....	.....	(X)	4,149	(X)	<sup>14</sup> 40,546
36430 92	Overhead trolley line material (except pole-line hardware and expansion shells and plugs for roof bolting in mines).....	.....	(X)	4,627		
3644- --	NONCURRENT CARRYING WIRING DEVICES.....	.....	(X)	439,343	(X)	341,570
	Pole-line and transmission hardware:					
36441 10	As reported in the census of manufactures.....	.....	(X)	97,901	(X)	81,178
	As reported on Census Annual Form MA-36K.....	.....	(X)	95,572	(X)	(X)
36441 01	Pole-line hardware.....	.....	(X)	74,613	(X)	69,241
36441 51	Transmission hardware high voltage porcelain products (including clamps, end fittings, strain yokes).....	.....	(X)	8,563	(X)	11,241
36441 00	Pole-line and transmission hardware, n.s.k.....	.....	(X)	(X)	(X)	696
	Electric conduit and conduit fittings:					
36442 10	As reported in the census of manufactures.....	.....	(X)	242,181	(X)	201,266
	As reported on Census Annual Form MA-36K.....	.....	(X)	241,472	(X)	(X)
	Rigid conduit (standard weight), including couplings, nipples, bends, and elbows:					
36442 21	Steel.....	Short tons...	251,265	66,328	( <sup>15</sup> )	( <sup>15</sup> )
36442 22	Other.....	...do.....	27,527	19,947	( <sup>15</sup> )	( <sup>15</sup> )
	Electrical metallic tubing (thin wall conduit), including couplings, nipples, bends, and elbows:					
36442 23	Steel.....	...do.....	157,512	42,314	(15)	(15)
36442 24	Other.....	...do.....				

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3644- --	NONCURRENT CARRYING WIRING DEVICES--Continued					
36442 33	Flexible steel conduit.....	1,000 feet....	90,257	6,994	70,389	6,110
36442 35	Raceways and raceway fittings (metal).....	.....	(X)	21,886	(X)	21,315
36442 36	Other electrical conduit (including underground conduit and fittings, molding angles, molding outlet, and molding junction boxes).....	.....	(X)	11,790	(X)	<sup>15</sup> 116,354
36442 39	Fittings other than those listed above (including conduit and electric metallic tubing connectors, service entrance caps and ells, insulating bushings, pothead, etc., and fittings for armored cable, nonmetallic wiring systems, and service cables).....	.....	(X)	63,457	(X)	44,760
	Switch and outlet wall plates:					
36442 63	Metal.....	1,000 units...	23,130	2,866	23,802	3,525
36442 65	Plastic.....	do.....	96,834	5,890	52,726	4,045
36442 00	Electric conduit and conduit fittings, n.s.k.....	.....	(X)	(X)	(X)	5,157
	Other noncurrent carrying wiring devices and supplies:					
36443 10	As reported in the census of manufactures.....	.....	(X)	92,836	(X)	59,126
	As reported on Census Annual Form MA-36K.....	.....	(X)	89,616	(X)	(X)
	Stamped metal boxes, covers, and accessories (including clamped conduit boxes):					
36443 11	Switch and receptical boxes.....	1,000 units...	85,254	15,342	87,113	16,198
36443 13	Outlet boxes.....	do.....	115,296	19,647	76,380	14,580
36443 17	Covers and accessories (including supports and bar hangers)...	.....	(X)	6,219	(X)	3,153
36443 21	Cast metal boxes, covers, and accessories, (including cast conduit boxes, but excluding fittings).....	.....	(X)	48,408	(X)	20,984
36443 23	Nonmetallic boxes and covers.....	.....	(X)	(X)	(X)	4,211
36443 00	Other noncurrent carrying wiring devices and supplies, n.s.k....	.....	(X)	(X)	(X)	(X)
36440 00	Noncurrent carrying wiring devices, n.s.k.....	.....	(X)	6,425	(X)	(X)

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.s.k. Not specified by kind.

<sup>1</sup>The total shipments of photoflash lamps for 1963 includes 148.2 million blue photoflash lamps, valued at \$11,619 thousand; the comparable 1958 figures are 85.7 million blue photoflash lamps, valued at \$7,011 thousand.

<sup>2</sup>Includes lamps for special services such as sign and display lighting; aviation; street; railway; spot and flood lighting; train and country home lighting; showcase; other items for special application; and large incandescent lamps under 15 watts and other than 100-130 volts.

<sup>3</sup>Includes lamps for use in toys, pin games, surgical, medical, and dental instruments, and for special applications.

<sup>4</sup>Includes power groove VHO, SHO lamps.

<sup>5</sup>Includes pre-heat rapid starting lamps.

<sup>6</sup>In the 1958 Census of Manufactures product class 36427 was part of product class 36421. Accordingly the 1958 value for portable residential type electrical fixtures, not specified by kind, are included in product code 3642110.

<sup>7</sup>Excludes indoor signs.

<sup>8</sup>Of this total, shipments of other motor vehicle lighting equipment (such as parking lights, dome lights, taillights, etc.) to motor vehicle manufacturers accounted for \$48,863 thousand; shipments of such equipment to all other customers for \$12,493 thousand. Shipments of headlight fixtures (exclusive of bulbs) accounted for the remaining \$18,483 thousand.

<sup>9</sup>Includes \$14,020 thousand of incandescent fixtures and \$1,930 thousand of fluorescent fixtures.

<sup>10</sup>For 1958, figures probably exclude components (sold separately) and renewal parts for outdoor lighting equipment.

<sup>11</sup>Excludes ballasts.

<sup>12</sup>Differs from previously published data. Electronic connectors valued at 66,436 thousand are now included in industry 3679, Electronic Components, N.E.C., rather than this industry.

<sup>13</sup>For 1958, figures for "Precision (1/8" gap or less) snap-acting switches" are included with "Other current carrying wiring devices," product code 3643098.

<sup>14</sup>Includes current carrying wiring devices, not specified by kind.

<sup>15</sup>For 1958, data for codes 3644221, 3644222, 2644223, and 3644224 are included with code 3644236.

**TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
364	Lighting and wiring devices.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
3641	Electric lamps (bulbs only).....1963..	153	111
	.....1958..	116	110
3642	Lighting fixtures.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
3643	Current carrying devices.....1963..	191	116
	.....1958..	169	106
3644	Noncurrent carrying devices.....1963..	186	99
	.....1958..	107	112

<sup>1</sup>Not shown pending further review of data covering lighting fixtures (products of industry 3642).

**TABLE 6C. Product Classes—Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3641-	Electric lamps.....	545,947	507,931	485,080	490,413	470,169	393,597	309,650	191,706
3642-	Lighting fixtures.....	1,116,064	1,118,376	958,935	928,312	883,242	765,413	633,488	468,477
36421	Residential type electric fixtures, except portables.....	158,799	<sup>2</sup> 311,743	<sup>2</sup> 247,078	<sup>2</sup> 255,354	<sup>2</sup> 255,959	114,804	88,529	54,229
36422	Commercial and institutional type electric fixtures.....	299,181	287,956	260,640	226,799	187,378	168,083	119,016	68,443
36423	Industrial type electric fixtures.....	76,134	75,929	63,476	68,609	67,075	62,393	60,457	51,023
36424	Vehicular lighting equipment, electric.....	157,390	146,947	119,565	132,908	130,547	105,970	144,391	110,120
36425	Outdoor lighting equipment.....	134,764	124,343	97,383	87,819	83,093	76,308	52,047	35,649
36426	Other electric and nonelectric lighting equipment.....	84,683	81,133	82,808	77,025	79,315	68,872	54,834	51,002
36427	Portable lamps (residential: table, floor, wall, etc.).....	160,188	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	112,540	94,898	75,419
36420	Lighting fixtures, n.s.k.....	44,925	(S)	(S)	(S)	(S)	56,433	19,316	22,592
3643-	Current carrying devices <sup>3</sup> .....	561,845	505,047	450,671	(NA)	(NA)	448,491	(NA)	(NA)
3644-	Noncurrent carrying devices.....	439,343	381,375	380,832	366,918	373,926	341,570	284,066	205,387
36441	Pole-line and transmission hardware.....	97,901	82,666	76,109	65,401	94,096	81,178	70,915	57,707
36442	Electric conduit and conduit fittings.....	242,181	220,884	232,075	231,041	195,016	201,266	152,289	111,004
36443	Other noncurrent carrying wiring devices and supplies.....	92,836	77,825	72,648	70,476	84,814	59,126	60,862	36,676
36440	Noncurrent carrying devices, n.s.k.....	6,425	(X)	(X)	(X)	(X)	(X)	(X)	(X)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>2</sup>For 1959-1962, product classes 36427, Portable lamps (residential: table, floor, wall, etc.) was included with product class 36421, Residential type electric fixtures, except portable. For 1947, 1954, and 1958, the comparable product class figures have been derived from the detailed product statistics.

<sup>3</sup>This product class previously included electronic connectors but has been redefined in the 1963 Census of Manufactures to exclude this product. The value of shipments including electronic connectors are as follows: 1963, \$828,235 thousand; 1962, \$768,718 thousand; 1961, \$636,748 thousand; 1960, \$622,336 thousand; 1959, \$615,715 thousand; 1958, \$514,921 thousand; 1954, \$285,163 thousand; and 1947, \$170,266 thousand.



**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
RESIDENTIAL TYPE ELECTRIC FIXTURE, EXCEPT PORTABLE (36421)	1963 <sup>1</sup>		VEHICULAR LIGHTING EQUIPMENT ELECTRIC (36424)	1963 <sup>1</sup>	1958	PORTABLE LAMPS RESIDENTIAL: TABLE, FLOOR, WALL, ETC. (36427)—Continued	1963 <sup>1</sup>	
United States, total....	158,799		United States, total....	157,390	105,970	Middle Atlantic.....	91,763	
New England.....	5,743		New England.....	5,497	( <sup>4</sup> )	New York.....	42,176	
Middle Atlantic.....	64,164		Middle Atlantic.....	12,651	<sup>4</sup> 14,391	New Jersey.....	17,517	
New York.....	19,490		North Central.....	134,035	91,579	Pennsylvania.....	32,070	
New Jersey.....	13,625		Ohio.....	16,670		North Central.....	40,540	
Pennsylvania.....	31,049		Illinois.....	10,350		Ohio.....	7,145	
East North Central.....	42,040		South and West.....	5,207		Illinois.....	28,453	
Ohio.....	11,001		OUTDOOR LIGHTING EQUIPMENT (36425)			South.....	8,999	
Illinois.....	23,168		United States, total....	134,764	76,308	Texas.....	1,454	
West North Central.....	<sup>2</sup> 2,368		New England.....	1,979	( <sup>5</sup> )	Pacific.....	16,405	
South.....	19,199		Massachusetts.....	1,460	2,274	CURRENT CARRYING WIRING DEVICES, INCLUDING LIGHTNING RODS (36430)	1963 <sup>1</sup>	1958
Georgia.....	1,018		Middle Atlantic.....	27,975	18,654	United States, total....	561,845	448,491
West.....	25,285		New York.....	10,693	8,974	New England.....	158,125	125,815
COMMERCIAL AND INSTITUTIONAL TYPE ELECTRIC FIXTURES (36422)	1963 <sup>1</sup>	1958	New Jersey.....	11,815	5,862	Massachusetts.....	48,293	38,408
United States, total....	299,181	168,083	Pennsylvania.....	5,467	3,818	Connecticut.....	77,571	64,417
New England.....	15,440	7,660	East North Central.....	53,469	<sup>3</sup> 42,000	Middle Atlantic.....	189,678	158,227
Massachusetts.....	10,725	( <sup>2</sup> )	Ohio.....	23,524	19,074	New York.....	92,745	89,609
Middle Atlantic.....	87,104	44,168	Illinois.....	21,062	17,661	New Jersey.....	49,284	35,443
New York.....	38,032	19,092	West North Central.....	2,502	( <sup>3</sup> )	Pennsylvania.....	47,649	33,175
New Jersey.....	23,320	8,782	South.....	37,859	( <sup>5</sup> )	East North Central.....	151,166	101,098
Pennsylvania.....	25,752	16,094	Texas.....	5,594	( <sup>2</sup> )	Ohio.....	32,144	19,845
East North Central.....	66,663	<sup>2</sup> 58,528	West.....	10,980	<sup>5</sup> 15,654	Indiana.....	24,781	15,396
Ohio.....	23,536	16,417	OTHER ELECTRIC AND NON-ELECTRIC LIGHTING EQUIPMENT (INCLUDING HAND PORTABLE EQUIPMENT) AND PARTS AND ACCESSORIES (36426)			Illinois.....	73,563	54,766
Illinois.....	28,082	23,447	United States, total....	84,683	68,872	West North Central.....	29,955	16,780
Michigan.....	7,821	3,320	New England.....	19,523	15,033	Missouri.....	18,242	16,286
West North Central.....	16,903	<sup>3</sup> 11,886	Massachusetts.....	9,551	( <sup>2</sup> )	South.....	16,528	4,872
South Atlantic.....	29,602	20,935	Middle Atlantic.....	24,080	14,126	West.....	16,393	41,699
East South Central.....	28,740		New York.....	10,864	6,279	California.....	15,828	40,990
West South Central.....	6,157		New Jersey.....	5,950	4,368	POLE-LINE AND TRANSMISSION HARDWARE (36441)		
West.....	48,572	36,792	Pennsylvania.....	7,266	3,479	United States, total....	97,901	81,178
INDUSTRIAL TYPE ELECTRIC FIXTURES (36423)			East North Central.....	22,545	<sup>3</sup> 21,675	Northeast.....	18,680	24,035
United States, total....	76,134	62,393	Ohio.....	4,823	2,905	New York.....	10,320	7,992
New England.....	4,053	3,653	Indiana.....	4,703	4,117	North Central.....	56,624	42,270
Middle Atlantic.....	18,041	19,773	Illinois.....	11,404	6,840	Illinois.....	26,465	21,032
New York.....	7,847	9,994	West North Central.....	8,057	( <sup>3</sup> )	South.....	13,263	7,119
New Jersey.....	4,368	3,589	South.....	2,406	12,290	Pacific.....	9,334	7,754
Pennsylvania.....	5,826	6,190	West.....	8,072	5,748	ELECTRIC CONDUIT AND CONDUIT FITTINGS (36442)		
East North Central.....	28,687	<sup>3</sup> 16,533	PORTABLE LAMPS RESIDENTIAL: TABLE, FLOOR, WALL, ETC. (36427)	1963 <sup>1</sup>		United States, total....	242,181	201,266
Ohio.....	13,577	3,161	United States, total....	160,188		New England.....	15,345	12,835
Illinois.....	14,179	8,826	New England.....	2,481		Connecticut.....	12,767	9,798
West North Central.....	1,916	( <sup>3</sup> )	Massachusetts.....	2,300		Middle Atlantic.....	103,065	110,248
Missouri.....	1,916	3,056				Pennsylvania.....	56,136	77,870
South.....	16,717	11,147				East North Central.....	73,075	<sup>3</sup> 28,869
West.....	6,720	11,287				Ohio.....	20,574	3,738
California.....	6,079	10,595						

See footnotes at end of table.

TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
ELECTRIC CONDUIT AND CONDUIT FITTINGS (36442)—Continued			OTHER NONCURRENT CARRYING WIRING DEVICES AND SUPPLIES (36443)			OTHER NONCURRENT CARRYING WIRING DEVICES AND SUPPLIES (36443)—Continued		
East North Central—Continued			United States, total....	92,836	59,126	East North Central.....	29,962	<sup>3</sup> 19,576
Indiana.....	10,069	(Z)	New England.....	1,919	( <sup>4</sup> )	Illinois.....	13,658	10,139
Illinois.....	36,564	21,619	Connecticut.....	1,316	(Z)	Wisconsin.....	3,079	( <sup>2</sup> )
Michigan.....	5,868	(Z)	Middle Atlantic.....	37,570	<sup>4</sup> 32,430	West North Central.....	6,003	( <sup>3</sup> )
West North Central.....	5,433	( <sup>3</sup> )	New York.....	21,269	18,270	South.....	5,085	2,537
South.....	30,561	37,769	New Jersey.....	1,905	2,022	West.....	12,297	4,583
Pacific.....	14,702	11,545	Pennsylvania.....	14,396	11,177			

NA Not available.

Z Less than \$1 million.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the states listed but the exact figures are withheld to avoid disclosing individual company figures: 36,421, Massachusetts, Michigan, Wisconsin, Missouri, Kentucky, Tennessee, Arkansas, Texas and California; 36,422, Rhode Island, Connecticut, Indiana, Wisconsin, Missouri, Delaware, West Virginia, Georgia, Florida, Kentucky, Mississippi, Arkansas, Texas, Colorado, Washington, and California; 36,423, Massachusetts, West Virginia, Georgia, Kentucky, Mississippi, and California; 36,424, Massachusetts, Connecticut, New York, Indiana, Michigan, Missouri, Delaware, Florida, and Washington; 36,425, Wisconsin, Missouri, Virginia, North Carolina, Tennessee, Utah, and California; 36,426, Vermont, Connecticut, Missouri, Kansas, Washington, and California; 36,427, Missouri, Kentucky, Mississippi and California; 36,430, Maine, Rhode Island, Michigan, Wisconsin, Minnesota, North Carolina, and Alabama; 36,441, Connecticut, Pennsylvania, Ohio, Michigan, Missouri, and Texas; 36,442, Massachusetts, New York, New Jersey, Missouri, Maryland, West Virginia, Georgia, Kentucky, Texas, and California; 36,443, Indiana, Michigan, Minnesota, and West Virginia.

<sup>2</sup>Totalled \$1 million or more but exact figure is withheld to avoid disclosing figures for individual companies.

<sup>3</sup>In 1958 West North Central was combined with East North Central.

<sup>4</sup>In 1958 New England was combined with Middle Atlantic.

<sup>5</sup>In 1958 New England and South were combined with West.



TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3641.—ELECTRIC LAMPS			
	MATERIALS, COMPONENTS, PARTS, CONTAINERS AND SUPPLIES, TOTAL...		(X)	183,990	(X)	125,355
	Mill shapes and forms (except castings):					
	Copper and copper-base alloy:					
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	1,360	1,432	(NA)	(NA)
335123	Plate, sheet, and strip, including military cups and discs.....	...do.....			(D)	(D)
335728	Barewire (for electrical conduction only).....	.....			(D)	(D)
335790	Insulated wire and cable.....	.....			(NA)	(NA)
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	.....	(D)	(D)	(NA)	(NA)
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	.....	(D)	(D)	(NA)	(NA)
335209	All other aluminum mill shapes and forms (wire rolled rod and bar, powder, welded tubing, etc.).....	.....	(D)	(D)	(NA)	(NA)
260091	Paper and paperboard containers.....	.....	(X)	15,495	(X)	11,000
970099	All other materials, parts, containers and supplies consumed.....	.....	(X)	161,341	(X)	114,355
973000	Materials, parts, containers and supplies, n.s.k. <sup>2</sup> .....	.....	(X)	5,722		
			INDUSTRY 3642.—LIGHTING FIXTURES			
	MATERIALS, COMPONENTS, PARTS, CONTAINERS AND SUPPLIES, TOTAL...		(X)	538,801	(X)	379,170
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	4,118	876	8,464	1,351
331012	Sheet and strip.....	...do.....	247,732	39,515	204,006	33,138
331017	Wire and wire products.....	...do.....	3,609	1,059	8,803	2,319
331015	Structural shapes.....	...do.....	4,327	899	10,128	2,033
331013	Plates.....	...do.....	32,212	3,699	23,104	3,762
331019	All other carbon steel mill shapes and forms.....	...do.....	21,628	4,312		
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	...do.....	154	216	945	331
331029	All other alloy steel mill shapes and forms.....	...do.....	5,746	3,091	2,972	1,351
331031	Stainless steel.....	...do.....	2,219	2,228	1,351	1,453
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction).....	1,000 lbs.....	2,688	1,526	566	323
335790	Insulated wire and cable.....	1,000 lbs. (copper content).....	10,087	6,674	4,409	4,261
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	1,518	889	9,161	5,072
335123	Plate, sheet and strip, including military cups and discs.....	...do.....	5,230	3,116		
335127	Pipes and tubes.....	...do.....	2,530	2,210		
	Aluminum and aluminum-base alloy:					
335202	Sheet plate and foil.....	...do.....	21,341	10,619	12,371	6,718
335205	Extruded shapes including extruded rod, bar, pipe, tube, etc..	...do.....	10,044	4,937	10,059	5,459
335209	All other aluminum mill shapes and forms (wired, rolled and bar, powder, welded tubing, etc.).....	...do.....	2,281	1,165		
333401	Aluminum and aluminum-base alloy refinery shapes.....	Short tons.....	4,755	2,332	1,100	636
	Castings (rough and semifinished): <sup>3</sup>					
332011	Iron (gray and malleable).....	...do.....	5,227	1,937	4,421	1,369
332300	Steel.....	...do.....	3,025	1,889	3,371	1,886
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	7,687	5,880	7,735	5,567
336200	Copper and copper-base alloy.....	...do.....	1,780	1,558	699	549
282130	Thermoplastic resins, including modified resins (includes resin content of vinyls and dry bases for cellulose, polyethylenes, polypropylenes, styrenes, etc. Includes granules, pellets, powder, liquid, etc., and excludes sheets, rods, tubes and other shapes)..	1,000 lbs. (dry basis).....	12,218	5,536	(NA)	(NA)
282140	Thermosetting resins (melamines, phenolics, polyesters, ureas, etc.). Includes granules, pellets, powder, liquid, etc. and excludes sheets, rods, tubes, and other shapes.....	...do.....	3,741	1,519	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	308,101	(X)	219,752
973000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....	.....	(X)	123,018	(X)	81,840
			INDUSTRY 3643.—CURRENT CARRYING DEVICES			
	MATERIALS, COMPONENTS, PARTS, CONTAINERS AND SUPPLIES, TOTAL...		(X)	225,474	(X)	171,983
	Mill shapes and forms (except casting):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	1,616	804	619	143
331012	Sheet and strip.....	...do.....	17,000	3,721	13,935	3,465
331017	Wire and wire products.....	...do.....	5,681	2,398	7,787	2,437
331019	All other carbon steel mill shapes and forms.....	...do.....	1,534	408	1,745	365

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3643.—CURRENT CARRYING DEVICES—Continued			
	Mill shapes and forms (except casting)—Continued					
331020	Alloy steel (except stainless).....	...do.....	6,645	2,699	1,111	418
331031	Stainless steel.....	...do.....	781	972	492	563
335728	Copper and copper-base alloy: Bare wire (for electrical conduction).....	1,000 lbs.....	5,513	2,659	3,490	1,549
335790	Insulated wire and cable.....	1,000 lbs. (copper content).....	12,037	5,791	4,438	3,698
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	13,315	6,910	28,289	16,505
335123	Plate, sheet, and strip including military cups and discs.....	...do.....	25,823	18,179		
335127	Pipe and tube.....	...do.....	4,242	2,628		
335202	Aluminum and aluminum-base alloy: Sheet, plate and foil.....	...do.....	4,401	1,868	1,842	1,031
335205	Extruded shapes (including extruded rod, bar, pipe tube, etc.)	...do.....	3,186	1,293		
335209	All other aluminum mill shapes and form (wire, rolled rod and bar welded tubing, etc.).....	...do.....	3,919	2,389		
333122	Refinery shapes: Copper and copper-base alloy.....	Short tons.....	2,335	1,595	4,428	2,760
333401	Aluminum and aluminum-base alloy.....	...do.....	463	271	505	242
333348	Zinc and zinc-base alloy.....	...do.....	395	174	(NA)	(NA)
999812	Scrap: Copper and copper-base alloy.....	...do.....	(D)	(D)	1,311	660
999808	Aluminum and aluminum-base alloy.....	...do.....	(D)	(D)	2,209	550
332011	Casting (rough and semifinished): <sup>3</sup> Iron (gray and malleable).....	...do.....	467	310	482	311
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	2,788	2,277	1,362	1,265
336200	Copper and copper-base alloy.....	...do.....	2,418	2,051	3,050	2,211
367408	Solid state semi-conductors.....	1,000 units.....	1,658	378	(NA)	(NA)
282130	Thermoplastic resins, including modified resins (includes resin content of vinyls and dry bases for cellulose, polyethylenes, polypropylenes, styrenes, etc. Includes granules, pellets, powder, liquid, etc., and excludes sheets, rods, tubes and other shapes).....	1,000 lbs. (dry basis).....	21,019	6,286	(NA)	14,000
282140	Thermosetting resins (melamines, phenolics, polyesters, ureas, etc.) Includes granules, pellets, powder, liquid, etc. and excludes sheets, rods, tubes, and other shapes.....	...do.....	8,791	5,318		
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	105,796	(X)	91,176
973000	Materials, parts, containers and supplies, n.s.k. <sup>2</sup> .....	.....	(X)	48,299	(X)	26,959
			INDUSTRY 3644.—NONCURRENT CARRYING DEVICES			
	MATERIALS, COMPONENTS, PARTS, CONTAINERS AND SUPPLIES, TOTAL...	.....	-	203,364	-	167,761
	Mill shapes and forms (except castings): Carbon steel:					
331011	Bar and bar shapes.....	Short tons.....	81,101	12,428	85,529	12,332
331012	Sheet and strip.....	...do.....	238,792	34,130	166,654	25,544
331017	Wire and wire products.....	...do.....	7,217	1,748	2,530	759
331019	All other carbon steel mill shapes and forms.....	...do.....	187,249	31,579	176,965	32,411
331020	Alloy steel (except stainless).....	...do.....	4,013	1,205	1,452	511
331031	Stainless steel.....	...do.....			443	713
335728	Copper and copper-base alloy: Bare wire (for electrical conduction).....	1,000 lbs.....	(D)	(D)	(4)	9,219
335790	Insulated wire and cable.....	1,000 lbs. (copper content).....	345	137	(4)	
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	1,405	864	4,450	2,506
335123	Plate, sheet, and strip, including military cups and discs.....	...do.....	2,320	1,186		
335127	Pipe and tube.....	...do.....	1,053	2,341		
335202	Aluminum and aluminum-base alloy: Sheet, plate and foil.....	...do.....	2,360	841	1,823	1,059
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	...do.....	8,816	3,655	4,896	2,613
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	...do.....				

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost	Quantity	Delivered cost
				(\$1,000)		(\$1,000)
			INDUSTRY 3644.—NONCURRENT CARRYING DEVICES—Continued			
	Refinery shapes:					
331051	Pig iron.....	Short tons.....	(NA)	(NA)	8,703	537
333122	Copper and copper-base alloy.....	..do.....	3,139	2,014	1,551	906
333401	Aluminum and aluminum-base alloy.....	..do.....	2,151	1,103	1,514	728
333348	Zinc and zinc-base alloy.....	..do.....	13,344	3,563	13,489	2,983
999808	Aluminum and aluminum-base alloy scrap (purchased only).....	..do.....	(D)	(D)	804	436
	Castings (rough and semifinished): <sup>3</sup>					
332011	Iron (gray and malleable) <sup>3</sup> .....	..do.....	21,704	10,050	16,719	7,953
336100	Aluminum and aluminum-base alloy <sup>5</sup> .....	1,000 lbs.....	5,527	3,754	5,137	3,567
336200	Copper and copper-base alloy <sup>3</sup> .....	..do.....	1,193	1,066	994	789
282130	Thermoplastic resins,including modified resins (includes resin content of vinyls and dry bases for cellulose, polyethylenes, polypropylenes, styrenes, etc. Includes granules, pellets, powder, liquid, etc., and excludes sheets, rods, tubes and other shapes).....	1,000 lbs, (dry basis).....				
282140	Thermosetting resins (melamines,phenolics,polyesters, ureas, etc.). Includes granules, pellets, powder, liquid, etc. and excludes sheets, rods, tubes, and other shapes.....	..do.....	2,369	721	(NA)	(NA)
970009	All other materials and components, parts, containers, and supplies consumed.....	.....	895	1,584	(NA)	(NA)
973000	Materials, parts, containers and supplies, n.s.k. <sup>2</sup> .....	.....	(X)	77,677	(X)	59,588
			(X)	11,718	(X)	2,607

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

<sup>1</sup>Represent estimates published in MC58(1)-7 (Supplement) "Selected Materials Consumed" from data collected in a supplemental survey on Form MA-131 "Consumption of Materials, Parts, Containers, and Supplies During 1958." This survey was limited to large establishments in selected chemical, machinery and equipment industries and produced data which are subject to greater qualification than those collected in the census of manufacturers itself.

<sup>2</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

<sup>3</sup>Does not include castings produced and consumed in the same establishment.

<sup>4</sup>Quantity is not available for bare wire. However, between 1,000 and 1,500 thousand pounds of insulated wire and cable were consumed by industry 3644.

<sup>5</sup>The quantities of aluminum and aluminum-base alloy castings produced for incorporation into other items produced at the same establishment cannot be published. The 1958 figure was 3,082 thousand pounds.

**TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962**

Item	Electric lamps (SIC 3641)	Lighting fixtures (SIC 3642)	Current carrying devices (SIC 3643)	Noncurrent carrying devices (SIC 3644)
Total cost of purchased fuels and electric energy.....\$1,000..	4,575	9,001	5,295	5,134
Total cost of purchased fuels.....do....	1,805	3,781	1,856	2,538
Bituminous coal, lignite, and anthracite:				
Quantity.....1,000 short tons..	(S)	84	(S)	32
Cost.....\$1,000..	(S)	581	(S)	253
Coke and breeze:				
Quantity.....1,000 short tons..	-	(S)	-	(S)
Cost.....\$1,000..	-	(S)	-	(S)
Fuel oil (distillate and residual):				
Quantity.....1,000 barrels of 42 gallons..	96	202	293	214
Cost.....\$1,000..	260	768	1,104	820
Gas (natural, manufactured, still, blast furnace, and coke oven):				
Quantity.....million cu.ft..	2,290	2,731	618	1,448
Cost.....\$1,000..	1,445	1,754	413	994
Other fuels.....do....	85	669	280	197
Electric energy:				
Purchased:				
Quantity.....million kw.-hrs..	232	355	217	174
Cost.....\$1,000..	2,770	5,220	3,439	2,596
Generated less sold.....million kw.-hrs..	-	-	-	-
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	67	172	71	115
Prime movers, total.....do....	3	9	2	7
Driving generators.....do....	(Z)	2	1	1
Not driving generators.....do....	3	7	1	6
Electric motors, total.....do....	64	163	70	107
Driven by purchased energy.....do....	64	163	70	107
Driven by energy generated at establishment.....do....	-	-	-	-
Aggregate horsepower per 100 production workers.....	356	418	195	758

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3642-	LIGHTING FIXTURES										
	Entire industry.....	1,239	53,866	288,148	42,052	83,284	193,464	587,834	578,062	1,159,497	23,072
	Establishments with--										
	90% or more specialization..	1,145	41,111	208,722	32,194	63,043	138,515	438,925	470,202	905,155	14,721
	75-89% specialization.....	33	7,747	54,288	5,918	12,604	38,173	103,080	73,022	174,806	5,888
36421	Residential type electric fixtures, except portable (primary product class of estab.).....	154	8,007	42,711	6,232	12,380	27,960	87,474	93,032	180,292	1,720
	Establishments with--										
	90% or more specialization....	109	4,764	24,628	3,743	7,467	16,465	43,823	54,208	97,544	1,022
	75-89% specialization.....	15	576	3,124	442	831	1,912	5,090	6,110	11,434	89
36422	Commercial and institutional type electric fixtures (primary product class of estab.).....	182	13,304	72,232	10,189	20,071	47,258	157,191	168,634	325,297	5,465
	Establishments with--										
	90% or more specialization....	103	6,328	34,316	4,880	9,566	23,125	68,338	73,043	141,271	2,381
	75-89% specialization.....	31	1,741	9,081	1,279	2,512	5,506	22,738	29,230	51,502	774
36423	Industrial type electric fixtures (primary product class of estab.)	34	1,492	6,991	1,138	2,288	4,720	13,587	16,624	30,523	1,184
	Establishments with--										
	90% or more specialization....	19	699	3,100	525	1,008	2,128	6,228	6,976	13,404	835
36424	Vehicular lighting equipment, electric (primary product class of estab.).....	24	9,029	57,714	7,158	14,810	42,017	111,286	72,484	181,329	6,279
	Establishments with--										
	90% or more specialization....	15	2,603	13,126	2,022	3,966	9,039	23,752	18,973	42,264	512
36425	Outdoor lighting equipment (primary product class of estab.)....	53	4,761	29,588	3,395	7,016	17,680	66,122	68,025	133,764	3,108
	Establishments with--										
	90% or more specialization....	32	2,535	14,260	1,942	3,991	8,949	37,811	39,605	77,492	1,978
	75-89% specialization.....	8	1,309	9,082	789	1,614	4,714	15,982	17,175	32,747	560
36426	Other electric and nonelectric lighting equipment (including hand portable equipment) and parts and accessories (primary product class of estab.).....	119	4,419	21,871	3,495	6,744	14,624	39,830	36,925	75,915	2,012
	Establishments with--										
	90% or more specialization....	82	1,743	8,338	1,360	2,686	5,365	15,172	18,178	33,014	1,016
	75-89% specialization.....	13	810	4,398	644	1,233	2,903	9,132	6,103	15,398	444
36427	Portable lamps (residential: table, floor, wall, etc.) (primary product class of estab.)....	353	9,240	39,758	7,668	14,637	27,354	77,689	88,238	165,112	1,679
	Establishments with--										
	90% or more specialization....	320	7,397	32,168	6,070	11,613	21,738	64,058	73,678	137,430	1,336
	75-89% specialization.....	13	277	1,170	215	416	860	2,974	2,318	5,017	42
3643-	CURRENT CARRYING DEVICES										
	Entire industry.....	449	35,424	175,185	27,239	53,474	115,097	355,643	257,175	615,980	14,119
	Establishments with--										
	90% or more specialization..	357	20,093	92,950	15,851	30,798	61,871	193,563	130,332	325,324	9,049
	75-89% specialization.....	11	1,383	8,204	984	2,061	5,168	25,703	12,467	37,816	839
3644-	NONCURRENT CARRYING DEVICES										
	Entire industry.....	182	20,290	123,576	14,756	29,691	79,605	253,918	226,499	479,033	7,873
	Establishments with--										
	90% or more specialization..	138	7,461	42,950	5,877	11,832	29,974	87,775	109,687	197,675	3,000
	75-89% specialization.....	22	5,000	29,919	3,669	7,348	19,880	66,749	54,813	120,196	1,145
36441	Pole-line and transmission hardware (primary product class of estab.).....	25	5,377	34,157	3,893	8,018	22,411	68,958	55,384	124,725	1,625
	Establishments with--										
	90% or more specialization....	13	1,931	11,927	1,427	2,817	8,204	26,921	21,858	49,318	622
	75-89% specialization.....	4	775	5,045	551	1,251	3,315	13,961	6,747	20,683	251

**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued**

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3644-	NONCURRENT CARRYING DEVICES—Continued										
36442	Electrical conduit and conduit fittings (primary product class of estab.).....	67	7,984	48,286	5,791	11,682	30,841	101,678	119,431	218,770	3,931
	Establishments with—										
	90% or more specialization....	46	2,672	14,691	2,054	4,011	9,835	29,083	55,929	84,381	996
	75-89% specialization.....	6	1,522	8,686	1,197	2,341	6,526	17,193	23,992	40,518	346
36443	Other noncurrent carrying wiring devices and supplies (primary product class of estab.).....	58	6,577	39,524	4,783	9,412	25,222	79,870	48,727	129,112	2,110
	Establishments with—										
	90% or more specialization....	41	1,445	8,003	1,227	2,508	6,006	15,945	13,579	29,583	496
	75-89% specialization.....	8	718	4,033	622	1,239	3,200	7,270	8,219	15,803	313

**TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963**

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3641.—ELECTRIC LAMPS							
Machine shop.....	17	2	9	6	462	(D)	(D)	376
Stamping, blanking, and forming of metals.....	4	2	2	-	28	(D)	(D)	-
Painting, lacquering, and enameling on metals.....	2	1	1	-	(D)	(D)	(D)	-
	INDUSTRY 3642.—LIGHTING FIXTURES							
Nonferrous foundry (except die casting).....	9	4	4	1	104	7	(D)	(D)
Nonferrous die casting.....	15	2	10	3	350	(D)	(D)	(D)
Electroplating and other plating.....	74	42	22	10	669	76	224	369
Galvanizing and other hot dip coating.....	7	7	-	-	14	14	-	-
Heat treating of metals.....	15	14	1	-	27	(D)	(D)	(D)
Automatic screw machine department.....	17	12	4	1	81	23	(D)	(D)
Machine shop.....	168	94	54	20	1,486	170	510	806
Tool and die shop.....	118	83	29	6	784	143	264	377
Plate or structural fabrication.....	33	16	13	4	260	30	122	109
Stamping, blanking, and forming of metals.....	283	115	105	63	4,366	209	1,054	3,103
Painting, lacquering, and enameling on metals.....	319	204	87	28	2,402	364	779	1,259

See footnotes at end of table.



TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963—Continued

Metalworking operations	Number of establishments				Employment in the specified operation				
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>			Total man-hours (1,000)
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more	
INDUSTRY 3643—CURRENT CARRYING DEVICES									
TOTAL, ALL OPERATIONS.....	(X)	(X)	(X)	(X)	22,223	(X)	(X)	(X)	43,747
Ferrous foundry.....	3	-	-	3	64	-	-	64	130
Nonferrous foundry, (except die casting).....	3	1	1	1	65	(D)	(D)	(D)	140
Nonferrous die casting.....	4	3	1	-	(D)	(D)	(D)	(D)	(D)
Forging.....	5	1	2	2	(D)	(D)	(D)	(D)	(D)
Electroplating and other plating.....	44	22	16	6	349	34	136	179	697
Galvanizing and other hot dip coating.....	9	7	1	1	45	(D)	(D)	(D)	92
Heat treating of metals.....	27	19	3	-	61	28	33	-	117
Automatic screw machine department.....	28	15	9	4	422	32	89	301	858
Machine shop.....	81	33	26	22	1,343	71	211	1,061	2,845
Tool and die shop.....	80	31	31	18	1,120	60	298	762	2,115
Foundry pattern shop.....	6	6	-	-	10	10	-	-	20
Plate or structural fabrication.....	3	2	1	-	(D)	(D)	(D)	(D)	(D)
Stamping, blanking, and forming of metals.....	93	41	28	24	1,690	78	267	1,345	3,311
Painting, lacquering, and enameling on metals.....	25	19	4	2	136	31	(D)	(D)	288
Plastics molding.....	37	11	13	13	865	23	131	711	1,754
Assembly of product.....	142	20	47	75	11,099	50	545	10,504	22,308
Shipping department, including packing and crating...	121	90	27	9	690	167	199	324	1,398
All other operations such as maintenance, warehousing, etc.....	96	38	31	22	4,054	62	324	3,668	7,122
INDUSTRY 3644—NONCURRENT CARRYING DEVICES									
TOTAL, ALL OPERATIONS.....	(X)	(X)	(X)	(X)	13,454	(X)	(X)	(X)	27,144
Ferrous foundry.....	4	-	1	3	653	-	(D)	(D)	1,250
Nonferrous foundry, (except die casting).....	10	-	6	4	328	-	69	259	646
Nonferrous die casting.....	16	7	6	3	169	11	46	112	340
Forging.....	15	-	10	5	653	-	124	529	1,389
Electroplating and other plating.....	21	7	7	7	452	15	72	365	749
Galvanizing and other hot dip coating.....	26	6	8	12	592	15	115	462	1,185
Heat treating of metals.....	13	10	2	1	59	18	(D)	(D)	119
Automatic screw machine department.....	18	11	4	3	271	24	32	215	604
Machine shop.....	61	20	19	22	1,480	44	200	1,230	3,025
Tool and die shop.....	56	29	23	4	432	55	220	157	855
Foundry pattern shop.....	11	7	3	1	87	13	(D)	(D)	172
Plate or structural fabrication.....	7	-	4	3	126	-	39	87	257
Stamping, blanking, and forming of metals.....	71	22	21	28	1,679	36	215	1,428	3,496
Painting, lacquering, and enameling on metals.....	40	23	10	7	346	42	76	228	685
Plastics molding.....	8	5	3	-	50	20	30	-	99
Assembly of product.....	81	16	30	35	3,052	31	321	2,700	5,985
Shipping department, including packing and crating...	84	45	28	11	793	101	296	396	1,621
All other operations such as maintenance, warehousing, etc.....	59	16	17	26	2,332	32	194	2,106	4,667

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below.

Item	Electric lamps (SIC 3641)	Lighting fixtures (SIC 3642)	Current carrying devices (SIC 3643)	Noncurrent carrying devices (SIC 3644)
Total number of establishments in the industry.....	81	1,239	449	182
Number of establishments which reported one or more of the specified operations.....	19	433	200	129
Percent of industry production workers in these establishments.....	55-60	70-75	85-90	90-95
Number of establishments which reported "none" of the operations apply	34	162	(X)	(X)
Percent of industry production workers in these establishments.....	40-45	5-10	(X)	(X)
Percent of industry production workers in establishments which completed metalworking operations inquiry.....	95-100	80-85	85-90	90-95

(D) Withheld to avoid disclosing figures for individual companies. (X) Not applicable.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.

## COMMUNICATION EQUIPMENT, INCLUDING RADIO AND TV, AND ELECTRONIC COMPONENTS AND ACCESSORIES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3651—Radio and Television Receiving Sets, Except Communication Types
- 3652—Phonograph Records
- 3661—Telephone and Telegraph Apparatus
- 3662—Radio and Television Transmitting, Signaling, and Detection Equipment and Apparatus
- 3671—Radio and Television Receiving Type Electron Tubes, Except Cathode Ray
- 3672—Cathode Ray Picture Tubes
- 3673—Transmitting, Industrial, and Special Purpose Electron Tubes
- 3674—Semiconductors (Solid State) and Related Devices
- 3679—Electronic Components and Accessories, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

Industries included in this report produce the bulk of electronic equipment, i.e., radios, television sets, electron tubes, etc., but also produce communications equipment other than electronic (industry 3661).

Component parts are generally included in the industry of the end product with the exception of certain general purpose components which are specifically classified elsewhere in the Standard Industrial Classification. Electronic components are frequently produced and consumed at the same location by establishments classified in this major group. Thus, there are (1) plants solely engaged in producing electronic components; (2) plants producing electronic components and assembling them into finished products; and (3) plants which assemble components produced elsewhere either in other plants of the same company or by other companies.

### 3651—RADIO AND TELEVISION RECEIVING SETS, EXCEPT COMMUNICATION TYPES

This industry comprises establishments primarily engaged in the manufacture of electronic equipment for home entertainment. This industry also includes establishments primarily engaged in manufacturing public address systems, and music distribution apparatus except records. Establishments primarily engaged in manufacturing records are classified in



industry 3652; radio and television receiving type tubes in industry 3671; and television receiving type cathode ray tubes in industry 3672. For a detailed list of products of industry 3651, refer to table 6A-2, product codes 3651101 to 3651394.

The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been slightly changed from the classification system used in 1958. The composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is due principally to the reclassification of TV tuners from industry 3651 to industry 3662, Radio, TV Communications Equipment.

Value of shipments and other receipts of the Radio and TV Receiving Sets Industry totaled \$2,255 million. This amount included shipments of radio and TV receiving sets (primary products) valued at \$1,992 million, shipments of other products (secondary products) valued at \$191 million, and miscellaneous receipts (mainly resales) at \$72 million.

This industry's shipments of radio and TV receiving sets represented 91 percent of its total product shipments. The industry specialization ratio in 1958 also was 91 percent. Secondary products shipped by this industry in 1963 consisted mainly of electronic components and accessories (\$43 million), and coils, transformers, reactors, and chokes for electronic application (\$20 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 62 percent of the total industry shipments are represented by plants specializing in product class 36512, Household television receivers, including television combinations; 20 percent in 36511, Household and automobile radios, and radio-phonograph combinations; and 17 percent in 36513, Recorders, audio-amplifiers, phonographs, tuners, speaker systems and other audio equipment and accessories.

Shipments of radio and TV receiving sets by this industry represented 96 percent of all shipments of these products (\$2,071 million) by all industries. In 1958 the coverage ratio was 92 percent. Other industries shipping radio and TV receiving sets consisted mainly of industry 3679, Electronic Components, N.E.C., \$14 million; and industry 3662, Radio, TV Communications Equipment, \$12 million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product class of industry 3651, e.g., 36512, Household television receivers, including television combinations, 100 percent.

The production index for the primary products of the industry increased to 161 in 1963 from the 1958 level of 99. The unit value index for 1963 was 83 compared to 97 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3652—PHONOGRAPH RECORDS

This industry comprises establishments primarily engaged in the manufacture of phonograph records and prerecorded tape. Establishments primarily engaged in manufacturing electronic equipment for home entertainment, except records, are classified in industry 3651. For a detailed list of products of industry 3652, refer to table 6A-1, product codes 3652022 to 3652091.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Phonograph Records Industry totaled \$180 million. This amount included shipments of phonograph records and prerecorded tape (primary products) valued at \$174 million, shipments of other products (secondary products) valued at \$4 million, and miscellaneous receipts (mainly resales) at \$2 million.

This industry's shipments of phonograph records and prerecorded tape represented 99 percent of its total product shipments. The industry specialization ratio in 1958 was 97 percent.

Shipments of phonograph records and prerecorded tape by this industry in 1963 represented 97 percent of all shipments of these products (\$179 million) by all industries. In 1958 the coverage ratio was 98 percent.

The production index for the primary products of the industry increased to 221 in 1963 from the 1958 level of 178. The unit value index for 1963 was 106 compared to 101 in 1958. Both indexes were computed on a basis of 1954 = 100.

### 3661—TELEPHONE AND TELEGRAPH APPARATUS

This industry comprises establishments primarily engaged in the manufacture of wire and wireless telephone and telegraph equipment, and parts especially designed for telephone and telegraph use. For a detailed list of products of industry 3661, refer to table 6A-1, product codes 3661111 to 3661281.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Data on cost of materials and value of shipments of the Telephone; Telegraph Apparatus Industry include extensive duplication resulting from the transfer of products such as telephone and telegraph components to establishments producing complete telephone and telegraph equipment. The value of such shipments are duplicated in the total value of shipments. A corresponding duplication enters into the total cost of materials. The data shown for value added by manufacture (value of shipments less cost of materials, etc.) avoid this duplication.

Value of shipments and other receipts of the Telephone and Telegraph Apparatus Industry totaled \$1,736 million. This amount included shipments of telephone; telegraph apparatus (primary products) valued at \$1,463 million, shipments of other products (secondary products) valued at \$192 million, and miscellaneous receipts (mainly resales) at \$80 million.

This industry's shipments of telephone and telegraph apparatus represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was 96 percent. The exact percentage, however, is not very meaningful due to the duplication described above. Secondary products shipped by this industry in 1963 consisted mainly of commercial, industrial, and military electronic communication equipment (except broadcast equipment and home-type intercommunication equipment), \$43 million.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 45 percent of the total industry shipments are represented by plants specializing in product class 36611, Telephone switching and switchboard equipment, and 54 percent in 36612, Other telephone and telegraph (wire) apparatus, equipment, and components.



Shipments of telephone and telegraph apparatus by this industry represented 95 percent of all shipments of these products (\$1,538 million) by all industries. In 1958 the coverage ratio was 99 percent. The exact percentages, however, are not very meaningful due to the duplication described above. Other industries shipping telephone and telegraph apparatus consisted mainly of industry 3662, Radio, TV Communications Equipment, \$20-\$50 million.

#### 3662—RADIO AND TELEVISION TRANSMITTING, SIGNALING, AND DETECTION EQUIPMENT AND APPARATUS

This industry comprises establishments primarily engaged in manufacturing (1) radio and television broadcasting equipment; (2) electric communication equipment and parts, except telephone and telegraph; (3) electronic field detection apparatus, light and heat emission operating apparatus, object detection apparatus and navigational electronic equipment, and aircraft and missile control systems; and (4) other electric and electronic communication and signaling products, not elsewhere classified. Establishments primarily engaged in manufacturing transmitting tubes are classified in industry 3673. For a detailed list of products of industry 3662, refer to table 6A-3, product codes 3662121 to 3662812.

The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been slightly changed from the classification system used in 1958. The composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is due principally to the reclassification of TV tuners to industry 3662 from industry 3651, Radio and TV Receiving Sets.

During the period 1958-1963 reports received from some large establishments indicated a change from the manufacture primarily of such individual instruments as those used for indicating air speed, rate-of-climb, angle-of-yaw and similar flight characteristics, and gyroscopes which are sold separately, to primarily manufacturing complete instrumentation systems for navigation, guidance, check-out, etc. The major impact of this change has been on the classification of products and, consequently, the SIC coding of these large establishments. This change in reporting was brought to light by the initiation by the Census Bureau of detailed commodity surveys in the fields of electronic products and instrumentation. The electronic and associated products report (MA-36N) was started covering the year 1961 and the instruments series (MA-38B) was broadened for 1963 to encompass most types of instruments following an introductory report for 1961 and 1962 covering industrial process instruments and test and measuring equipment. Annual statistics from both reports are published in the Current Industrial Reports Series.

In both the 1958 Census of Manufactures and the Annual Survey of Manufactures from 1959 through 1962 the classification of systems was not sufficiently spelled out in the product inquiries of these programs, especially at the 5-digit product class level. However, with the introduction in the MA-36N and MA-38B surveys of detailed 7-digit product information which itself is used to build up to broader 5-digit product class totals, these totals, although they should be the same as those reported on Form MA-100 (Annual Survey of Manufactures), have differed. The respondents affected have identified the proportion of earlier years' output which consisted of systems rather than instruments as such, which was the manner in which the items were originally reported.

In view of the above, the annual data for 1958-1962 have been revised, as indicated with the symbol "r" in the appropriate tables. Because of the shift in recent years from instruments which are classified in industry 3811 to complete systems which are classified in industry 3662, the year-to-year changes are of dubious validity for the industries considered separately. The two industries taken in combination, however, would yield significant measures of activity in the general area.

Value of shipments and other receipts of the Radio, TV Communications Equipment Industry totaled \$7,146 million. This amount included shipments of radio and TV communications equipment (primary products) valued at \$5,512 million, shipments of other products (secondary products) valued at \$750 million, and miscellaneous receipts (mainly receipts for research and development work) at \$883 million.

This industry's shipments of radio and TV communications equipment represented 88 percent of its total product shipments. The industry specialization ratio in 1958 was 86 percent. Secondary products shipped by this industry in 1963 consisted mainly of aircraft, flight, nautical and navigational instruments, and automatic pilots (\$169 million), and other electronic components and accessories, n.e.c. (\$73 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 20 percent of the total industry shipments are represented by plants specializing in product classes 36621, Commercial, industrial, and military electronic communication equipment; 32 percent in 36625, Electronic search and detection apparatus, including radar, infrared and sonar; and 21 percent in 36628, Missile-borne and space vehicle-borne navigation and guidance systems and equipment.

Shipments of radio and TV communications equipment by this industry represented 91 percent of all shipments of these products (\$6,052 million) by all industries. In 1958 the coverage ratio was 83 percent. Other industries shipping radio and TV communications equipment consisted mainly of industry 3679, Electronic Components, N.E.C., \$39 million; and industry 3661, Telephone; Telegraph Apparatus, \$43 million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3662, e.g., 36623, Inter-communication equipment and electric alarm and signal systems and devices, 76 percent; 36624, Electronic navigational aids, except missile-borne and space vehicle-borne equipment, 97 percent; 36626, Electronic military, industrial and commercial equipment, n.e.c., 82 percent; and, 36627, Space satellite-borne communication systems, 100 percent.

#### 3671—RADIO AND TELEVISION RECEIVING TYPE ELECTRON TUBES, EXCEPT CATHODE RAY

This industry comprises establishments primarily engaged in the manufacture of radio and television receiving type electron tubes, except cathode ray tubes. Establishments primarily engaged in manufacturing television receiving type cathode ray tubes are classified in industry 3672; transmitting tubes in industry 3673; X-ray tubes in industry 3693; and electronic equipment for home entertainment, except tubes in industry 3651. For a detailed list of products of industry 3671, refer to table 6A-3, product codes 3671011 to 3671015.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Electron Tubes, Receiving Type, Industry totaled \$321 million. This amount included shipments of receiving type electron tubes (primary products) valued at \$272 million, shipments of other products (secondary products) valued at \$34 million, and miscellaneous receipts (mainly resales) at \$15 million.

This industry's shipments of receiving type electron tubes represented 89 percent of its total product shipments. The industry specialization ratio in 1958 also was 89 percent. Secondary products shipped by this industry in 1963 consisted mainly of transmitting, industrial, and special purpose electron tubes (except X-ray) (\$15 million), and electronic components and accessories, n.e.c. (\$17 million).



Shipments of receiving type electron tubes by this industry in 1963 represented 95 percent of all shipments of these products (\$288 million) by all industries. In 1958 the coverage ratio was 96 percent. Other industries shipping receiving type electron tubes consisted mainly of industry 3661, Telephone; Telegraph Apparatus, and industry 3674, Semiconductors, over \$2 million each.

The product index for the primary products of the industry decreased to 91 in 1963 from the 1958 level of 104. The unit value index for 1963 was 109 compared to 113 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3672—CATHODE RAY PICTURE TUBES

This industry comprises establishments primarily engaged in manufacturing television receiving type cathode ray tubes. Establishments primarily engaged in manufacturing other radio and television receiving type electron tubes are classified in industry 3671; and transmitting tubes in industry 3673. For a detailed list of products of industry 3672, refer to table 6A-3, product codes 3672013 to 3672015.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Cathode Ray Picture Tubes Industry totaled \$269 million. This amount included shipments of cathode ray picture tubes (primary products) valued at \$224 million, and shipments of other products (secondary products) and miscellaneous receipts valued at \$45 million.

This industry's shipments of cathode ray picture tubes represented between 85-90 percent of its total product shipments. The industry specialization ratio in 1958 was 96 percent. Secondary products shipped by this industry in 1963 consisted mainly of other electronic components and accessories (\$4 million).

Shipments of cathode ray picture tubes by this industry represented 90 percent of all shipments of these products (\$249 million) by all industries. In 1958 the coverage ratio was 84 percent. Other industries shipping cathode ray picture tubes consisted mainly of industry 3651, Radio and TV Receiving Sets, industry 3673, Electron Tubes, Transmitting, and industry 3674, Semiconductors, over \$2 million each.

The production index for the primary products of the industry increased to 110 in 1963 from the 1958 level of 92. The unit value index for 1963 was 106 compared to 91 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3673—TRANSMITTING, INDUSTRIAL, AND SPECIAL PURPOSE ELECTRON TUBES

This industry comprises establishments primarily engaged in manufacturing transmitting, industrial, and special purpose electron tubes. Establishments primarily engaged in manufacturing radio and television transmitting equipment are classified in industry 3662; radio and television receiving tubes in industry 3671; television type cathode ray tubes in industry 3672; and X-ray tubes in industry 3693. For a detailed list of products of industry 3673, refer to table 6A-3, product codes 3673011 to 3673096.

The code number as well as the definition of the industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Electron Tubes, Transmitting, Industry totaled \$300 million. This amount included shipments of electron tubes, transmitting (primary products) valued at \$214 million, shipments of other products (secondary products) valued at \$53 million, and miscellaneous receipts (mainly resales) at \$33 million.

This industry's shipments of electron tubes, transmitting, represented 80 percent of its total product shipments. The industry specialization ratio in 1958 was 83 percent. Secondary products shipped by this industry in 1963 consisted mainly of other electronic components and accessories, n.e.c. (\$6 million), and electronic military, industrial, and commercial equipment, n.e.c. (\$3 million).

Shipments of electron tubes, transmitting, by this industry represented 75 percent of all shipments of these products (\$287 million) by all industries. In 1958 the coverage ratio was 81 percent. Other industries shipping electron tubes, transmitting, consisted mainly of industry 3671, Electron Tubes, Receiving Type, \$15 million; and industry 3662, Radio, TV Communications Equipment, \$12 million.

The production index for the primary products of the industry increased to 166 in 1963 from the 1958 level of 130. The unit value index for 1963 was 111 compared to 110 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3674—SEMICONDUCTORS (SOLID STATE) AND RELATED DEVICES

This industry comprises establishments primarily engaged in the manufacture of semiconductor (solid state) and related devices, such as semiconductor diodes and stacks, including rectifiers; transistors; solar cells; and light sensitive semiconductor (solid state) devices. This industry is now a separate one under the Standard Industrial Classification System. In 1958, the SIC included it as part of industry 3679. For a detailed list of products of industry 3674, refer to table 6A-3, product codes 3674013 to 3674096.

Value of shipments and other receipts of the Semiconductors Industry totaled \$688 million. This amount included shipments of solid state semiconductor devices (primary products) valued at \$575 million, shipments of other products (secondary products) valued at \$76 million, and miscellaneous receipts (mainly receipts for research and developmental work) at \$36 million.

This industry's shipments of solid state semiconductor devices represented 88 percent of its total product shipments. Secondary products shipped by this industry in 1963 consisted mainly of electronic components and accessories, n.e.c. (\$29 million) and capacitors for electronic applications (\$4 million).

Shipments of solid state semiconductor devices by this industry represented 92 percent of all shipments of these products (\$623 million) by all industries. Another industry shipping solid state semiconductor devices was industry 3679, Electronic Components, N.E.C., \$15 million.

#### 3679—ELECTRONIC COMPONENTS AND ACCESSORIES, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing specialty resistors for electronic end products; solid state electronic devices and similar devices; inductors, electronic transformers and capacitors; and, other electronic components, n.e.c. Establishments primarily engaged in manufacturing resistors, inductors, and transformers for telephone and telegraph apparatus are classified in industry 3661; and electric lamps in industry 3641. For a detailed list of products of industry 3679, refer to table 6A-3, product codes 3679212 to 3679598.

The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been significantly changed from the classification system used in 1958. The composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is due principally to



the setting up of separate industry 3674 for those establishments producing solid state semiconductor devices; and, the inclusion in 1963 of electronic connectors, which were previously classified in industry 3643, Current Carrying Devices.

Value of shipments and other receipts of the Electronic Components, N.E.C., Industry totaled \$2,332 million. This amount included shipments of electronic components, n.e.c. (primary products) valued at \$1,944 million, shipments of other products (secondary products) valued at \$243 million, and miscellaneous receipts (mainly resales) at \$146 million.

This industry's shipments of electronic components, n.e.c., represented 89 percent of its total product shipments. Secondary products shipped by this industry in 1963 consisted mainly of electronic military, industrial, and commercial equipment, n.e.c. (\$32 million) and optical instruments and lenses (except sighting and fire-control equipment), \$17 million.

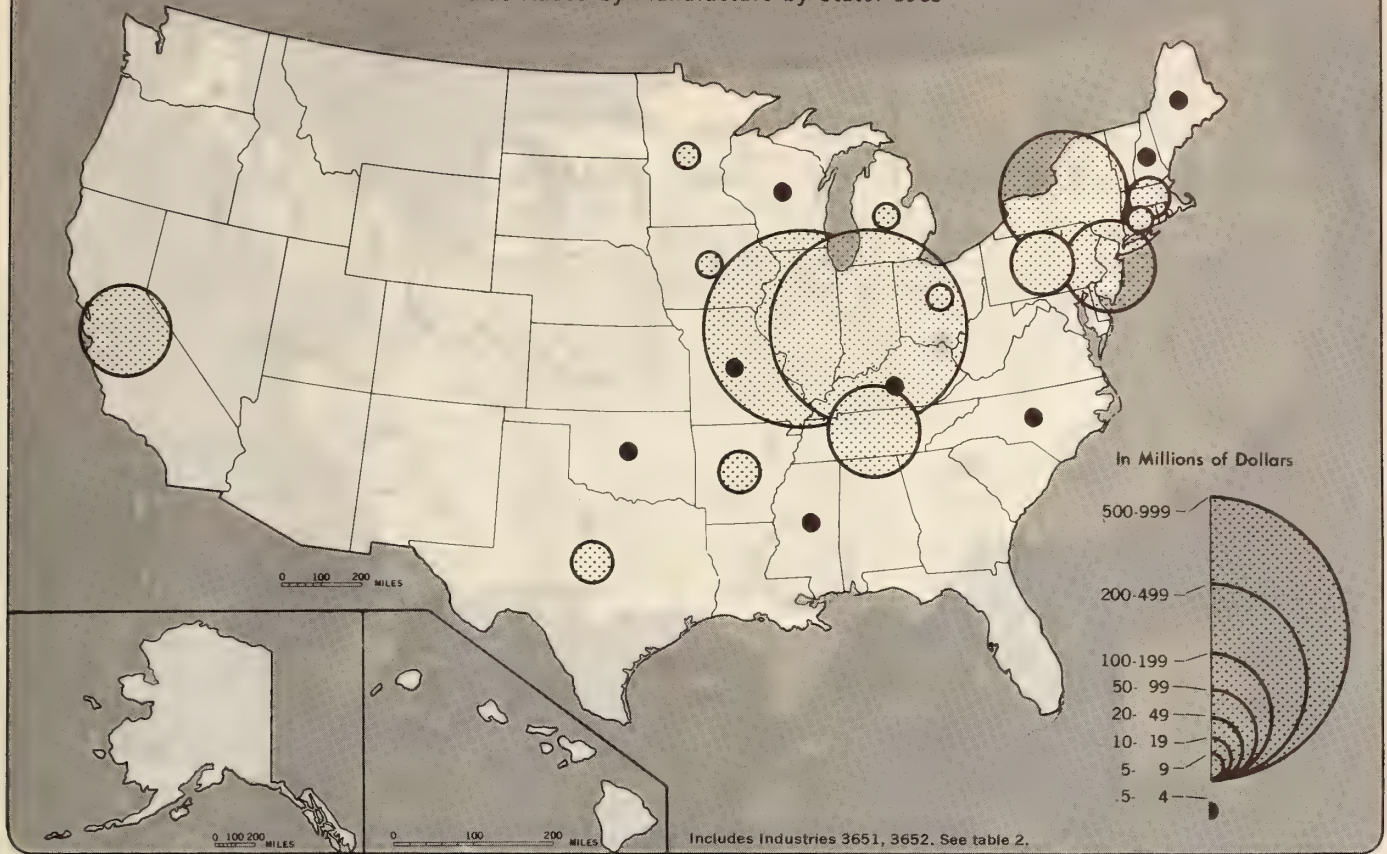
While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 56 percent of the total industry shipments are represented by plants specializing in product class 36795, Other electronic components and accessories.

Shipments of electronic components, n.e.c., by this industry represented 78 percent of all shipments of these products (\$2,501 million) by all industries. Other industries shipping electronic components, n.e.c., consisted mainly of industry 3571, Computing and Related Machines, \$75 million; and industry 3662, Radio, TV Communications Equipment, \$82 million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3679, e.g., 36792, Capacitors for electronic applications, 94 percent; 36793, Resistors for electronic applications, 74 percent; 36794, Coils, transformers, reactors, and chokes for electronic applications, 85 percent; and 36795, Other electronic components and accessories, n.e.c., 72 percent.

# RADIO AND TV RECEIVING EQUIPMENT: SIC 365

Value Added by Manufacture by State: 1963

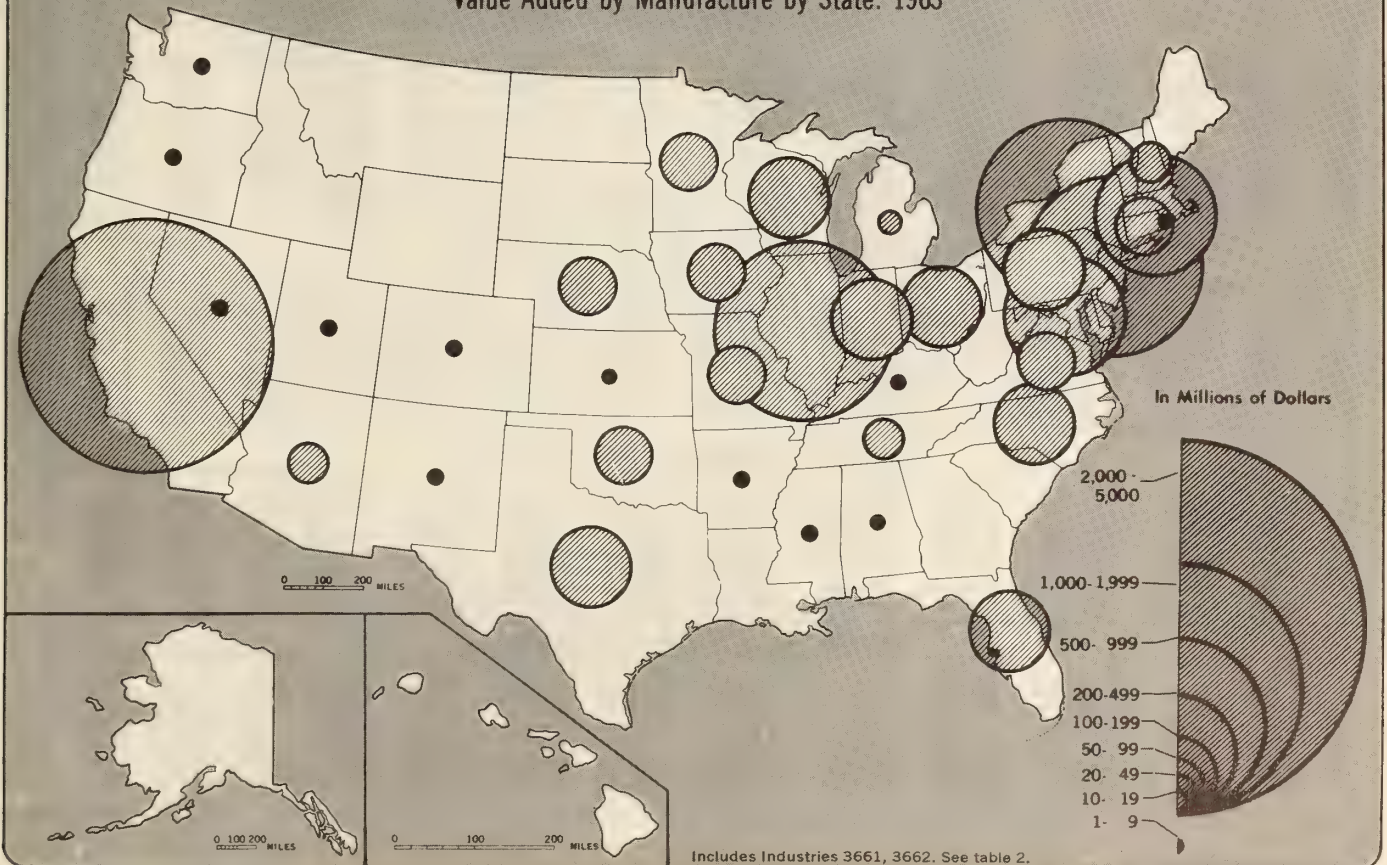


U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

# COMMUNICATION EQUIPMENT: SIC 366

Value Added by Manufacture by State: 1963

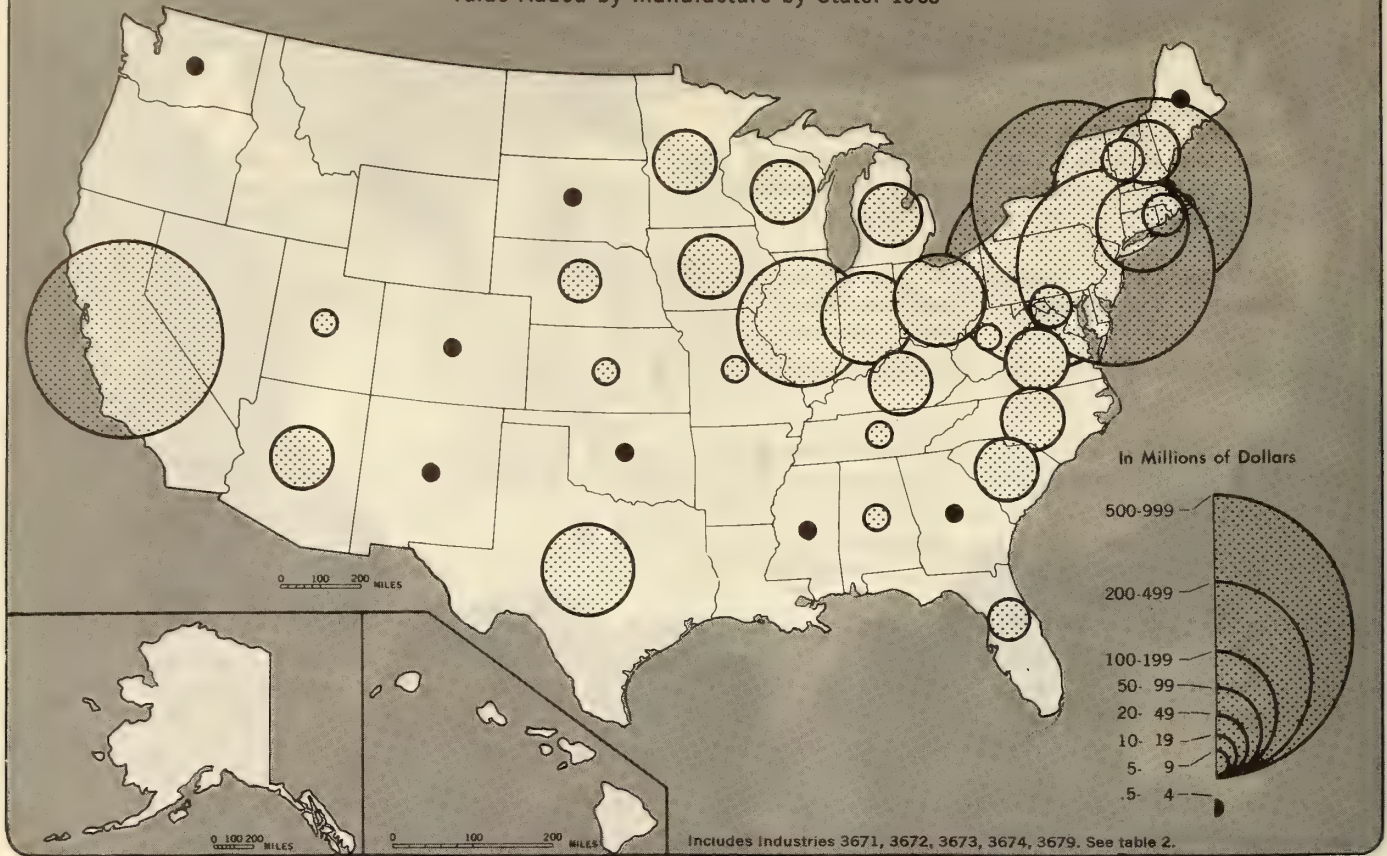


U.S. DEPARTMENT OF COMMERCE

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# ELECTRONIC COMPONENTS: SIC 367 Value Added by Manufacture by State: 1963



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3651.—RADIO AND TV RECEIVING SETS														
1963.....	322	348	178	81,264	411,924	66,538	128,463	289,287	911,954	1,389,412	2,254,878	30,511	91	96
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	82,951	408,332	66,052	127,222	273,350	868,958	1,306,602	2,128,875	27,096	(X)	(X)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	76,837	369,982	59,553	112,093	239,326	728,832	1,105,866	1,849,180	(28,670)	(X)	(X)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	71,743	340,600	56,269	108,463	222,348	694,336	1,036,042	1,719,337	19,594	(X)	(X)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	74,874	339,395	60,168	116,187	231,738	727,108	1,079,111	1,781,133	16,610	(X)	(X)
1958 <sup>2</sup> .....	216	234	144	66,505	292,664	52,047	100,487	196,565	593,953	936,314	1,548,006	13,323	91	90
INDUSTRY 3652.—PHONOGRAPH RECORDS														
1963.....	128	167	60	9,554	46,981	7,566	15,022	32,976	125,388	54,087	180,173	8,704	99	97
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,161	45,278	7,068	14,419	31,492	126,257	62,459	189,263	3,145	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,391	39,643	6,596	13,146	27,811	109,533	54,460	165,467	3,484	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,170	37,436	6,459	13,268	26,333	99,629	54,762	154,944	5,611	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,590	35,158	6,017	12,536	25,181	91,893	58,442	150,589	4,326	(NA)	(NA)
1958 <sup>3</sup> .....	85	94	53	7,421	33,381	5,858	12,158	23,739	93,079	58,704	148,731	4,011	97	98
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,099	28,943	5,255	11,008	20,626	88,875	36,570	121,542	2,810	97	96
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,376	26,122	4,921	20,133	18,854	78,511	30,236	104,889	3,470	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,960	23,336	4,506	9,322	16,024	59,225	25,297	82,650	3,328	(NA)	(NA)
1954.....	135	143	34	6,152	23,312	4,740	9,451	15,685	58,689	33,849	92,546	2,992	94	97
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,624	24,679	5,317	11,049	18,553	62,763	29,269	92,032	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,539	20,282	4,335	8,928	15,239	58,910	23,581	82,309	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,867	19,600	4,607	9,378	14,937	58,233	25,898	83,943	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,572	20,633	5,099	10,842	15,269	56,852	25,436	82,106	(NA)	(NA)	(NA)
1947.....	96	111	(NA)	10,045	29,193	8,246	17,594	22,840	75,660	38,951	110,184	(NA)	(NA)	(NA)
1939.....	(NA)	24	(NA)	(NA)	(NA)	926	(NA)	1,128	6,424	3,003	9,427	(NA)	(NA)	(NA)
INDUSTRY 3661.—TELEPHONE; TELEGRAPH APPARATUS <sup>4</sup>														
1963.....	65	<sup>90</sup>	56	89,465	554,375	63,983	122,707	358,741	1,013,792	<sup>4704</sup> ,187	<sup>41</sup> ,736,358	55,127	<sup>695</sup>	<sup>695</sup>
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	98,674	620,722	68,196	136,018	377,974	1,024,651	<sup>4794</sup> ,666	<sup>41</sup> ,883,602	77,372	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	92,237	562,195	62,441	124,155	339,057	1,004,141	<sup>4690</sup> ,584	<sup>41</sup> ,680,375	65,327	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	87,488	529,737	61,092	123,994	329,534	845,918	<sup>4629</sup> ,361	<sup>41</sup> ,484,464	78,231	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	80,383	464,099	56,106	111,772	286,906	797,960	<sup>4527</sup> ,096	<sup>41</sup> ,295,182	(71,997)	(NA)	(NA)
1958 <sup>3</sup> .....	67	<sup>91</sup>	51	80,061	430,739	54,340	105,522	268,869	715,511	<sup>4469</sup> ,687	<sup>41</sup> ,207,955	102,810	<sup>696</sup>	<sup>699</sup>
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	91,885	500,266	62,786	122,685	309,172	840,217	(NA)	(NA)	132,170	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	82,443	449,657	58,435	119,875	285,920	775,837	(NA)	(NA)	73,179	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	69,304	367,273	49,139	102,284	233,889	632,837	(NA)	(NA)	39,643	(NA)	(NA)
1954.....	56	74	55	64,663	300,589	43,717	84,627	184,124	500,196	(NA)	(NA)	22,144	(NA)	(NA)
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	66,106	309,881	44,892	90,582	189,964	488,285	(NA)	(NA)	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	63,262	288,214	43,191	89,396	177,882	482,999	(NA)	(NA)	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	54,696	235,382	36,907	75,853	144,664	397,292	(NA)	(NA)	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	49,863	191,591	32,518	63,512	113,493	303,970	(NA)	(NA)	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	58,504	206,357	38,817	72,693	127,722	334,011	(NA)	(NA)	(NA)	(NA)	(NA)
1947.....	50	90	53	76,072	258,567	53,630	108,687	167,488	384,417	(NA)	(NA)	39,280	(NA)	(NA)
1939.....	(NA)	(NA)	(NA)	(NA)	(NA)	14,433	(NA)	26,977	98,715	(NA)	(NA)	(NA)	(NA)	(NA)
INDUSTRY 3662.—RADIO, TV COMMUNICATIONS EQUIPMENT														
1963.....	1,001	1,132	635	387,384	2,840,218	205,698	419,121	1,230,671	4,327,671	2,822,882	7,145,600	138,734	88	91
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	348,401	2,575,807	178,138	380,720	1,207,580	3,914,678	2,900,207	6,663,654	114,325	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	307,660	2,162,513	149,958	326,332	915,941	3,160,576	2,578,468	5,682,482	112,932	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	239,742	1,602,632	127,124	277,842	738,599	2,399,539	2,143,696	4,458,261	97,907	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	187,129	1,186,871	107,901	220,684	568,945	1,831,100	1,788,751	3,540,848	79,484	(NA)	(NA)
1958 <sup>2</sup> .....	472	519	270	154,350	924,071	88,523	178,315	433,648	1,558,261	1,274,673	2,852,617	56,147	86	83
INDUSTRY 3671.—ELECTRON TUBES, RECEIVING TYPE														
1963.....	30	42	22	25,850	136,768	20,357	37,670	88,463	250,681	76,109	321,091	5,596	89	95
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	26,575	134,616	21,381	40,443	92,592	239,125	72,515	310,224	5,308	(X)	(X)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	27,179	131,675	21,715	39,561	88,014	230,913	79,949	313,860	8,275	(X)	(X)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	36,182	162,071	29,234	51,340	107,312	299,998	103,485	397,032	14,695	(X)	(X)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	37,391	163,173	30,374	56,139	113,322	323,801	106,019	422,068	12,201	(X)	(X)
1958 <sup>2</sup> .....	71	85	41	36,968	149,540	30,931	57,271	110,707	285,799	92,260	382,526	11,514	89	96
INDUSTRY 3672.—CATHODE RAY PICTURE TUBES														
1963.....	148	151	28	10,916	66,888	7,958	16,634	40,468	128,354	142,111	269,122	16,138	85-90	90
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,809	40,212	5,425	11,158	27,485	63,406	104,277	167,947	3,666	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,498	41,059	6,094	12,475	28,671	84,073	103,071	183,505	(4,661)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,019	43,015	6,597	13,350	30,999	77,056	103,977	179,932	3,125	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,649	40,314	6,135	12,841	28,845	82,493	100,181	183,169	(S)	(NA)	(NA)
1958 <sup>2</sup> .....	72	75	30	8,554	38,092	6,955	14,183	27,570	67,472	91,972	159,252	1,794	96	84

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spec- ializa- tion ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
1963..... 1962 <sup>1</sup> ..... 1961 <sup>1</sup> ..... 1960 <sup>1</sup> ..... 1959 <sup>1</sup> ..... 1958 <sup>2</sup> .....	INDUSTRY 3673.—ELECTRON TUBES, TRANSMITTING													
	45	57	45	18,704	129,296	11,631	24,027	72,406	204,614	96,311	299,527	13,262	80	75
	(NA)	(NA)	(NA)	25,023	157,419	15,220	31,137	84,537	276,760	131,649	404,908	18,609	(X)	(X)
	(NA)	(NA)	(NA)	23,263	140,755	14,248	29,058	75,543	225,177	112,876	335,528	16,727	(X)	(X)
	(NA)	(NA)	(NA)	22,273	125,485	13,665	27,667	66,540	203,477	100,422	292,842	20,190	(X)	(X)
	(NA)	(NA)	(NA)	22,658	123,172	14,487	29,687	69,322	201,343	98,513	291,903	11,818	(X)	(X)
	40	48	44	20,146	102,150	14,475	29,472	65,134	165,803	90,669	258,474	9,021	83	81
	INDUSTRY 3674.—SEMICONDUCTORS													
1963 <sup>7</sup> ..... 1958 <sup>7</sup> .....	86	107	87	56,349	320,875	37,548	77,113	168,504	467,035	199,384	687,817	52,439	88	92
	(NA)	48	42	23,370	112,989	17,630	34,691	65,902	186,800	75,522	250,306	16,172	(NA)	(NA)
1963 <sup>8</sup> ..... 1958 <sup>8</sup> .....	INDUSTRY 3679.—ELECTRONIC COMPONENTS, N.E.C.													
	1,743	1,934	968	176,708	881,920	133,412	261,707	550,845	1,457,433	889,488	2,332,215	88,508	89	78
	(NA)	1,431	695	108,872	451,032	85,251	166,696	301,424	728,006	473,451	1,195,378	35,719	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: **All employees:** For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). **Production workers:** For 1947 and prior years figures represent an average of 12 monthly figures. **Value added:** Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. **Cost of materials:** Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. **Value of shipments:** Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. Revised. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data. See text for explanation concerning shift from individual instruments to systems.

<sup>2</sup>A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so that comparable data for prior years are not available. See text for explanation concerning shift from individual instruments to systems.

<sup>3</sup>Data for Alaska and Hawaii are not included for 1958 and previous years.

<sup>4</sup>The value of shipments and cost of materials for this industry include extensive duplication arising from shipments between establishments in the same industry classifications. For further explanation see text.

<sup>5</sup>For 1958 and 1963 a number of small establishments (under 20 employees) may have been misclassified in industry 3661, Telephone and Telegraph Apparatus because of insufficient product information. Although this has a significant effect on the number of establishments for this industry it has virtually no effect on any of the other statistics, i.e., number of employees, salaries and wages, value added, etc. It is estimated that the effect on these principal statistics is less than 1 percent.

<sup>6</sup>The exact figures shown, while correct to the extent that they are mathematical calculations, are not very meaningful because of extensive duplication in the value of shipments. See introductory text for this industry.

<sup>7</sup>This industry was included in industry 3679 in the 1958 Census of Manufactures. Accordingly, no estimates are available for 1959-1962, or for years prior to 1958. The figures for 1958 are based on a special tabulation.

<sup>8</sup>This industry included the semiconductor devices manufacturers (present SIC 3674) in 1958. Accordingly, no estimates are available for 1959-1962, or for years prior to 1958. The figures for 1958 are based on a special tabulation.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3651.—RADIO AND TV RECEIVING SETS													
Total.....	348	178	81,264	411,924	66,538	128,463	289,287	911,954	1,389,412	2,254,878	30,511	66,505	593,953
New England.....	21	11	2,173	8,620	1,788	3,300	6,154	18,480	29,797	46,881	608	22,446	191,692
Connecticut.....	8	3	274	1,069	203	428	664	2,200	2,145	4,357	124		
Middle Atlantic....	131	64	21,241	113,667	16,243	30,993	74,583	237,879	320,669	547,319	4,464	10,809	110,876
New York.....	104	51	13,196	73,966	9,700	18,309	45,907	158,487	183,318	337,856	3,526		
East North Central.	94	60	45,824	232,804	38,946	75,953	174,108	513,266	865,170	1,350,529	19,759	36,616	340,766
Illinois.....	57	39	29,004	144,620	24,604	47,851	105,781	301,159	544,048	825,695	12,155	21,314	206,764
Michigan.....	9	4	977	4,831	762	1,436	3,231	8,359	6,740	15,059	221	( <sup>2</sup> )	( <sup>2</sup> )
West.....	55	19	4,276	26,060	2,901	5,925	13,606	42,122	44,359	84,175	1,693	( <sup>2</sup> )	( <sup>2</sup> )
California.....	50	19	4,239	25,901	2,878	5,884	13,512	41,934	44,092	83,714	1,677	( <sup>2</sup> )	( <sup>2</sup> )
All other divisions	47	24	7,750	30,773	6,660	12,292	20,836	100,207	129,417	225,974	3,987	( <sup>2</sup> )	( <sup>2</sup> )
Iowa.....	5	5	1,198	4,678	1,000	2,001	3,493	7,841	12,399	20,154	114	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3652.—PHONOGRAPH RECORDS													
Total.....	167	60	9,554	46,981	7,566	15,022	32,976	125,388	54,087	180,173	8,704	7,421	93,079
New England.....	6	4	660	4,336	471	921	2,220	4,656	5,477	10,659	80	4,302	47,116
Middle Atlantic....	70	30	4,212	19,877	3,399	6,669	14,731	45,828	25,832	71,659	2,160		
New York.....	33	8	757	3,729	629	1,252	2,873	5,006	4,675	9,760	765	681	3,286
East North Central.	19	9	2,744	13,443	2,129	4,308	9,133	48,085	14,070	61,788	1,710	1,709	33,110
Illinois.....	9	4	322	1,401	278	558	1,092	2,050	1,419	3,489	290	195	890
West.....	53	13	1,645	8,259	1,318	2,673	6,043	23,958	7,278	31,790	4,220	( <sup>2</sup> )	( <sup>2</sup> )
California.....	50	13	1,627	8,192	1,305	2,649	6,001	23,830	7,199	31,584	4,207	1,370	12,455
All other divisions	19	4	293	1,066	249	451	849	2,861	1,430	4,277	534	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3661.—TELEPHONE; TELEGRAPH APPARATUS													
Total.....	90	56	89,465	554,375	63,983	122,707	358,741	1,013,792	704,187	1,736,358	55,127	80,061	715,511
New England.....	8	4	10,467	58,595	7,747	14,952	38,980	114,535	98,358	217,944	9,082	6,857	62,372
Middle Atlantic....	28	17	16,046	106,743	11,998	23,106	73,679	161,629	143,822	317,988	9,909	18,599	145,763
North Central.....	29	23	50,681	315,773	35,385	67,817	200,751	591,421	368,973	966,664	29,593	47,702	444,865
South.....	12	7	9,389	52,860	7,113	13,571	34,987	107,110	80,423	184,769	5,688	6,903	62,511
Pacific.....	13	5	2,882	20,404	1,740	3,261	10,344	39,097	12,611	48,993	855		
INDUSTRY 3662.—RADIO, TV COMMUNICATIONS EQUIPMENT													
Total.....	1,132	635	387,384	2,840,218	205,698	419,121	1,230,671	4,327,671	2,822,882	7,145,600	138,734	<sup>r</sup> 154,350	<sup>r</sup> 1,558,261
New England.....	140	90	41,029	289,577	21,825	45,279	130,618	449,996	355,587	801,490	9,207	<sup>r</sup> 15,341	<sup>r</sup> 166,994
New Hampshire.....	13	8	3,191	20,640	2,176	4,469	12,571	25,981	26,709	54,072	708	1,558	7,537
Middle Atlantic....	345	202	127,027	993,027	69,730	139,614	451,649	1,365,879	845,338	2,244,857	37,493	<sup>r</sup> 59,366	<sup>r</sup> 658,966
North Central.....	195	94	58,055	373,470	30,004	61,729	152,846	618,396	547,835	1,189,512	19,099	<sup>r</sup> 29,381	<sup>r</sup> 275,578
Michigan.....	25	9	1,973	13,574	1,139	2,534	7,258	18,312	22,225	45,329	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Nebraska.....	4	3	184	822	103	209	358	1,441	1,071	2,501	72	( <sup>2</sup> )	( <sup>2</sup> )
South.....	155	92	61,598	423,114	33,060	67,879	172,370	724,080	441,971	1,155,201	27,713	<sup>r</sup> 23,070	<sup>r</sup> 216,582
Virginia.....	10	8	5,100	31,511	2,735	5,489	11,456	59,652	44,995	105,224	1,320	( <sup>2</sup> )	( <sup>2</sup> )
Florida.....	42	23	10,074	77,379	5,203	10,792	28,574	112,889	68,148	175,872	5,596	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	31	15	8,843	61,978	4,438	10,178	28,506	135,486	63,152	184,909	8,990	3,277	23,516
Mountain.....	22	16	4,603	29,764	3,734	7,754	21,454	43,636	24,545	67,341	1,509	( <sup>2</sup> )	( <sup>2</sup> )
Colorado.....	7	3	170	1,051	112	182	604	1,114	604	1,732	60	( <sup>2</sup> )	( <sup>2</sup> )
New Mexico.....	3	3	254	1,312	194	319	833	2,066	1,024	3,023	204	( <sup>2</sup> )	( <sup>2</sup> )
Pacific.....	275	141	95,072	731,266	47,345	96,866	301,734	1,125,684	607,606	1,687,199	43,713	( <sup>2</sup> )	( <sup>2</sup> )
Washington.....	15	5	954	6,858	542	1,056	2,244	9,680	4,717	14,805	279	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3671.—ELECTRON TUBES, RECEIVING TYPE													
Total.....	42	22	25,850	136,768	20,357	37,670	88,463	250,681	76,109	321,091	5,596	36,968	285,799
Northeast.....	25	16	16,637	90,993	12,432	22,543	54,144	154,689	47,548	204,857	(D)	24,593	175,396
North Central	17	6	9,213	45,775	7,925	15,127	34,319	95,992	28,561	116,234	(D)	12,375	110,403
South and West....													

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
INDUSTRY 3672.—CATHODE RAY PICTURE TUBES													
Total.....	151	28	10,916	66,888	7,958	16,634	40,468	128,354	142,111	269,122	16,138	8,554	67,472
Northeast.....	39	13	4,973	32,408	3,303	7,063	17,119	73,017	43,117	116,448	5,670	3,515	26,420
East North Central..	36	9	5,388	32,140	4,176	8,632	21,509	51,365	95,463	145,052	9,553	4,638	37,162
West North Central..	13	-	37	179	30	53	122	309	224	559	61		
South and West.....	63	6	518	2,161	449	886	1,718	3,663	3,307	7,063	854	401	3,890
INDUSTRY 3673.—ELECTRON TUBES, TRANSMITTING													
Total.....	57	45	18,704	129,296	11,631	24,027	72,406	204,614	96,311	299,527	13,262	20,146	165,803
Northeast.....	30	24	8,967	58,377	5,471	10,594	31,432	93,461	55,431	149,340	(D)	14,332	114,836
New York.....	7	7	3,209	20,476	1,568	2,746	7,284	39,194	27,489	68,202	1,403	1,885	16,057
New Jersey.....	13	10	1,161	6,961	858	1,685	4,420	12,805	5,061	16,291	760	2,408	17,070
East North Central..	5	4	415	2,288	279	555	1,161	2,732	1,575	4,850	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Illinois.....	5	4	415	2,288	279	555	1,161	2,732	1,575	4,850	(D)	( <sup>2</sup> )	( <sup>2</sup> )
South and West.....	22	17	9,322	68,631	5,881	12,878	39,813	108,421	39,305	145,337	(D)	5,237	47,998
California.....	16	13	8,023	60,483	4,916	10,840	34,536	91,677	33,013	126,421	7,865	4,302	32,239
INDUSTRY 3674.—SEMICONDUCTORS													
Total.....	107	87	56,349	320,875	37,548	77,113	168,504	467,035	199,384	687,817	52,439	23,370	186,800
New England.....	27	24	10,126	49,437	8,126	16,982	34,357	59,534	31,311	98,219	4,987	6,815	46,675
Massachusetts.....	16	15	6,337	31,146	5,271	10,997	23,619	35,416	18,770	56,306	3,842	( <sup>2</sup> )	( <sup>2</sup> )
Middle Atlantic.....	35	28	19,333	114,907	12,517	24,617	58,752	163,587	75,386	255,816	19,584	8,067	55,835
New York.....	13	11	4,614	27,396	2,990	6,078	13,163	45,617	15,865	60,726	2,899	( <sup>2</sup> )	( <sup>2</sup> )
New Jersey.....	11	8	3,665	22,161	2,081	4,076	8,669	23,996	9,908	36,852	2,378	( <sup>2</sup> )	( <sup>2</sup> )
Pennsylvania.....	11	9	11,054	65,350	7,446	14,463	36,920	93,974	49,613	158,238	14,307	2,901	20,091
North Central South and West.....	45	35	26,890	156,531	16,905	35,514	75,395	243,914	92,687	333,782	27,868	8,488	84,290
California.....	28	22	11,198	69,820	6,543	12,645	27,146	116,242	34,395	150,236	9,117	3,726	33,090
INDUSTRY 3679.—ELECTRONIC COMPONENTS, N.E.C.													
Total.....	1,934	968	176,708	881,920	133,412	261,707	550,845	1,457,433	889,488	2,332,215	88,508	108,872	728,006
New England.....	258	137	32,425	156,674	24,064	45,903	96,599	238,028	139,047	375,077	10,047	19,036	111,011
Maine.....	4	3	399	1,605	361	739	1,166	1,976	1,915	3,933	56	( <sup>2</sup> )	( <sup>2</sup> )
Massachusetts.....	151	75	16,976	82,437	12,185	23,974	49,360	124,045	72,167	195,280	4,575	( <sup>2</sup> )	( <sup>2</sup> )
Connecticut.....	73	39	9,177	47,088	6,726	11,999	28,695	67,600	42,292	109,991	3,366	( <sup>2</sup> )	( <sup>2</sup> )
Middle Atlantic.....	592	293	49,110	264,329	35,816	70,873	153,606	440,139	287,657	719,145	34,731	36,157	259,527
New York.....	261	135	25,784	148,565	17,890	35,928	78,365	219,210	162,740	374,013	22,970	( <sup>2</sup> )	( <sup>2</sup> )
New Jersey.....	215	98	11,296	58,469	8,406	16,595	35,923	104,391	59,066	163,094	4,504	( <sup>2</sup> )	( <sup>2</sup> )
Pennsylvania.....	116	60	12,030	57,295	9,520	18,350	39,318	116,538	65,851	182,038	7,257	( <sup>2</sup> )	( <sup>2</sup> )
North Central.....	425	263	47,324	212,536	37,571	72,784	141,442	361,063	239,719	598,809	13,675		
Ohio.....	58	32	5,117	25,741	3,727	7,202	16,226	38,209	32,455	71,010	1,948		
Illinois.....	169	116	20,331	87,203	16,379	31,408	57,779	139,251	97,181	236,424	5,160		
Michigan.....	41	17	3,017	13,600	2,496	4,888	9,522	28,751	32,657	59,080	752		
Wisconsin.....	32	19	2,802	14,403	2,152	3,912	8,483	23,891	9,915	33,479	891		
Nebraska.....	9	4	1,565	6,184	994	2,025	2,974	11,368	4,467	16,298	366		
South.....	183	87	19,967	87,019	15,903	31,359	61,487	150,447	93,218	247,137	9,822	53,679	357,468
West Virginia.....	4	3	905	3,800	719	1,424	2,419	5,354	2,418	7,754	136		
North Carolina.....	15	14	3,643	13,521	3,045	6,101	10,184	33,356	13,222	46,680	1,645		
Tennessee.....	9	6	1,130	3,825	918	1,809	2,535	5,662	2,961	8,389	228		
Texas.....	38	8	797	3,702	597	1,176	2,285	5,799	3,407	10,617	357		
West.....	476	188	27,882	161,362	20,058	40,788	97,711	267,756	129,847	392,047	20,233		
Colorado.....	7	4	252	1,008	221	481	795	1,184	352	1,542	90	121	401
California.....	433	173	26,452	153,657	19,200	38,789	93,520	256,208	123,977	374,454	19,743	11,436	87,827

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. applicable. n.e.c. Not elsewhere classified.

(NA) Not available. (X) Not

Footnotes continued on next page.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Footnotes for Table 2-36D—Continued

- <sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.
- SIC 3651, Radio and TV Receiving Sets: New England—Maine, 1 (100-249); Massachusetts, 12 (1,000-2,499); Middle Atlantic—New Jersey, 19 (4,726); Pennsylvania, 8 (3,319); East North Central—Ohio, 10 (979); Indiana, 15 (14,565); Wisconsin, 3 (299); West North Central—Minnesota, 6 (500-999); Missouri, 1 (20-99); Kansas, 3 (1-19); South Atlantic—Maryland, 1 (1-19); District of Columbia, 1 (1-19); Virginia, 1 (1-19); North Carolina, 1 (20-99); South Carolina, 1 (1-19); Georgia, 1 (20-99); Florida, 4 (1-19); East South Central—Kentucky, 3 (250-499); Tennessee, 2 (1,000-2,499); West South Central—Arkansas, 5 (1,000-2,499); Oklahoma, 2 (100-249); Texas, 10 (1,000-2,499); Mountain—Colorado, 2 (1-19); Arizona, 1 (1-19); Nevada, 1 (1-19); Pacific—Washington, 1 (1-19).
- SIC 3652, Phonograph Records: New England—New Hampshire, 1 (20-99); Massachusetts, 1 (20-99); Connecticut, 4 (500-999); Middle Atlantic—New Jersey, 26 (2,336); Pennsylvania, 11 (1,119); East North Central—Ohio, 4 (126); Indiana, 3 (2,249); Michigan, 3 (20-99); West North Central—Minnesota, 2 (20-99); South Atlantic—Maryland, 1 (1-19); Florida, 3 (20-99); East South Central—Kentucky, 1 (1-19); Tennessee, 5 (20-99); Mississippi, 1 (20-99); West South Central—Arkansas, 1 (1-19); Louisiana, 1 (1-19); Texas, 4 (20-99); Mountain—Arizona, 1 (1-19); Pacific—Hawaii, 2 (1-19).
- SIC 3661, Telephones; Telegraph Apparatus: New England—New Hampshire, 1 (20-99); Massachusetts, 5 (9,966); Connecticut, 2 (250-499); Middle Atlantic—New York, 19 (5,471); New Jersey, 8 (10,000 and over); Pennsylvania, 1 (1-19); East North Central—Ohio, 5 (6,626); Indiana, 2 (5,000-9,999); Illinois, 15 (29,213); Wisconsin, 1 (100-249); West North Central—Minnesota, 1 (100-249); Iowa, 1 (1-19); Missouri, 3 (4,022); Nebraska, 1 (2,500-4,999); South Atlantic—Maryland, 1 (2,500-4,999); Virginia, 2 (500-999); East South Central—Kentucky, 1 (1-19); Tennessee, 2 (500-999); Mississippi, 1 (250-499); West South Central—Arkansas, 1 (250-499); Oklahoma, 2 (2,500-4,999); Texas, 2 (1-19); Pacific—Oregon, 1 (20-99); California, 12 (2,823).
- SIC 3662, Radio, TV Communications Equipment: New England—Maine, 1 (1-19); Massachusetts, 83 (30,726); Rhode Island, 3 (746); Connecticut, 40 (5,000-9,999); Middle Atlantic—New York, 176 (68,204); New Jersey, 108 (10,000 and over); Pennsylvania, 61 (10,000 and over); East North Central—Ohio, 37 (8,429); Indiana, 20 (5,000-9,999); Illinois, 68 (14,350); Wisconsin, 13 (5,000-9,999); West North Central—Minnesota, 9 (5,000-9,999); Iowa, 5 (5,000-9,999); Missouri, 10 (836); South Dakota, 1 (1-19); Kansas, 3 (304); South Atlantic—Delaware, 1 (1-19); Maryland, 28 (10,000 and over); District of Columbia, 3 (20-99); West Virginia, 1 (20-99); North Carolina, 8 (9,908); South Carolina, 2 (20-99); Georgia, 4 (20-99); East South Central—Kentucky, 4 (100-249); Tennessee, 6 (2,500-4,999); Alabama, 2 (500-999); West South Central—Arkansas, 2 (100-249); Louisiana, 2 (20-99); Oklahoma, 9 (2,500-4,999); Mountain—Arizona, 7 (3,155); Utah, 3 (500-999); Nevada, 2 (100-249); Pacific—Oregon, 3 (20-99); California, 256 (94,071); Alaska, 1 (1-19).
- SIC 3671, Electron Tubes, Receiving Type: New England—Massachusetts, 5 (2,500-4,999); Middle Atlantic—New York, 6 (1,175); New Jersey, 7 (8,242); Pennsylvania, 7 (2,500-4,999); East North Central—Ohio, 2 (1,000-2,499); Indiana, 2 (1,000-2,499); Illinois, 3 (20-99); West North Central—Minnesota, 1 (1-19); Iowa, 1 (1,000-2,499); Nebraska, 1 (1-19); South Atlantic—Maryland, 1 (1-19); South Carolina, 1 (1-19); East South Central—Kentucky, 1 (2,500-4,999); Alabama, 1 (100-249); Pacific—California, 3 (20-99).
- SIC 3672, Cathode Ray Picture Tubes: New England—New Hampshire, 1 (1-19); Massachusetts, 6 (20-99); Middle Atlantic—New York, 11 (569); New Jersey, 10 (231); Pennsylvania, 11 (4,092); East North Central—Ohio, 11 (1,000-2,499); Indiana, 4 (1,000-2,499); Illinois, 14 (2,126); Michigan, 7 (20-99); West North Central—Minnesota, 4 (1-19); Iowa, 1 (1-19); Missouri, 4 (1-19); South Dakota, 1 (1-19); Nebraska, 1 (1-19); Kansas, 2 (1-19); South Atlantic—Virginia, 2 (20-99); North Carolina, 2 (1-19); Georgia, 5 (122); Florida, 4 (20-99); East South Central—Kentucky, 2 (1-19); Tennessee, 5 (1-19); Alabama, 7 (1-19); Mississippi, 2 (1-19); West South Central—Arkansas, 1 (1-19); Louisiana, 4 (20-99); Oklahoma, 2 (1-19); Texas, 5 (20-99); Mountain—Colorado, 2 (1-19); New Mexico, 1 (1-19); Arizona, 4 (1-19); Utah, 1 (1-19); Pacific—Washington, 2 (1-19); Oregon, 2 (1-19); California, 9 (125); Hawaii, 1 (1-19).
- SIC 3673, Electron Tubes, Transmitting: New England—Massachusetts, 5 (2,915); Connecticut, 3 (1,000-2,499); Middle Atlantic—Pennsylvania, 2 (250-499); South Atlantic—Virginia, 1 (100-249); Florida, 1 (500-999); East South Central—Mississippi, 1 (1-19); West South Central—Texas, 2 (100-249); Mountain—Utah, 1 (250-499).
- SIC 3674, Semiconductors: New England—Maine, 1 (500-999); New Hampshire, 1 (500-999); Rhode Island, 3 (500-999); Connecticut, 6 (1,000-2,499); East North Central—Ohio, 1 (1,000-2,499); Illinois, 7 (626); West North Central—Minnesota, 1 (20-99); South Atlantic—Florida, 1 (1-19); East South Central—Mississippi, 1 (1-19); West South Central—Texas, 2 (5,000-9,999); Mountain—Arizona, 4 (5,260).
- SIC 3679, Electronic Components, N.E.C.: New England—New Hampshire, 16 (2,500-4,999); Vermont, 4 (1,000-2,499); Rhode Island, 10 (500-999); East North Central—Indiana, 43 (7,342); West North Central—Minnesota, 34 (2,361); Iowa, 12 (1,000-2,499); Missouri, 14 (800); South Dakota, 2 (100-249); Kansas, 11 (1,000-2,499); South Atlantic—Delaware, 4 (20-99); Maryland, 24 (1,000-2,499); District of Columbia, 1 (20-99); Virginia, 13 (5,624); South Carolina, 5 (2,500-4,999); Georgia, 4 (1-19); Florida, 47 (1,475); East South Central—Kentucky, 6 (100-249); Alabama, 3 (776); Mississippi, 2 (250-499); West South Central—Arkansas, 1 (1-19); Louisiana, 2 (1-19); Oklahoma, 5 (100-249); Mountain—Idaho, 2 (20-99); New Mexico, 6 (20-99); Arizona, 11 (502); Utah, 3 (250-499); Nevada, 2 (1-19); Pacific—Washington, 7 (100-249); Oregon, 5 (20-99).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.



TABLE 3. Detailed Statistics: 1963

Item	Radio and TV receiving sets (SIC 3651)	Phonograph records (SIC 3652)	Telephone; telegraph apparatus (SIC 3661)	Radio, TV communications equipment (SIC 3662)	Electron tubes, receiving type (SIC 3671)	Cathode ray picture tubes (SIC 3672)	Electron tubes, transmitting (SIC 3673)	Semiconductors (SIC 3674)	Electronic components, n.e.c. (SIC 3679)
Primary product specialization ratio <sup>1</sup> .....	.91	.99	.95	.88	.89	.85-.90	.80	.88	.89
Coverage ratio <sup>2</sup> .....	.96	.97	.95	.91	.95	.90	.75	.92	.78
Establishments, total.....number..	348	167	90	1,132	42	151	57	107	1,934
With 1 to 19 employees.....do....	170	107	34	497	20	123	12	20	966
With 20 to 99 employees.....do....	82	39	15	329	3	20	15	31	555
With 100 employees or more.....do....	96	21	41	306	19	8	30	56	413
Proprietors and working partners.....do....	74	49	14	175	72	63	5	3	422
All employees (average for the year).....do....	81,264	9,554	89,465	387,384	25,850	10,916	18,704	56,349	176,708
Payroll (all employees), total for year.....\$1,000..	411,924	46,981	554,375	2,840,218	136,768	66,888	129,296	320,875	881,920
Production workers:									
Average for the year.....number..	66,538	7,566	63,983	205,698	20,357	7,958	11,631	37,548	133,412
March.....do....	58,916	7,723	68,574	213,454	21,918	7,904	11,681	37,375	131,896
May.....do....	62,323	7,149	60,090	207,850	21,128	7,904	11,929	37,194	132,911
August.....do....	71,209	7,426	63,892	201,503	19,953	7,713	11,600	37,080	134,116
November.....do....	73,706	7,957	63,385	199,985	18,437	8,319	11,329	38,525	134,720
Man-hours.....1,000..	128,463	15,022	122,707	419,121	37,670	16,634	24,027	77,113	261,707
January-March.....do....	28,304	3,845	38,867	110,578	10,745	4,174	6,287	19,752	64,840
April-June.....do....	30,976	3,520	32,096	107,207	10,225	4,136	6,263	19,825	66,221
July-September.....do....	33,672	3,650	26,739	98,645	8,134	3,957	5,591	17,708	64,412
October-December.....do....	35,511	4,007	30,005	102,691	8,566	4,367	5,886	19,828	66,234
Wages.....\$1,000..	289,287	32,976	358,741	1,230,671	88,463	40,468	72,406	168,504	550,845
Cost of materials, etc., total.....do....	1,389,412	54,087	704,187	2,822,882	76,109	142,111	96,311	199,384	889,488
Materials, parts, containers, and supplies consumed.....do....	1,335,000	49,512	655,050	2,468,669	60,103	138,318	73,946	183,301	754,690
Cost of resales.....do....	34,681	1,703	29,466	156,673	9,806	672	10,054	2,657	83,006
Fuels consumed.....do....	2,036	1,216	3,758	7,163	787	785	1,100	1,529	5,261
Electric energy:									
Purchased:									
Quantity.....million kw.-hrs..	367	105	547	2,173	232	196	251	678	998
Cost.....\$1,000..	4,703	1,458	6,013	25,972	2,710	2,133	2,927	7,044	14,249
Generated less sold.....million kw.-hrs..	(D)	-	(D)	43	-	-	-	(D)	(D)
Contract work.....\$1,000..	12,992	198	9,900	164,405	2,703	203	8,284	4,853	32,282
Value of shipments (including resales), total.....do....	2,254,878	180,173	1,736,358	7,145,600	321,091	269,122	299,527	687,817	2,332,215
Value of resales.....do....	43,140	1,838	33,357	184,511	11,149	855	18,730	5,116	103,823
Value added by manufacture, adjusted.....do....	911,954	125,388	1,013,792	4,327,671	250,681	128,354	204,614	467,035	1,457,433
Manufacturers' inventories:									
Beginning of year, total.....do....	314,841	20,400	356,497	1,368,034	48,158	20,720	75,800	142,985	377,578
Finished products.....do....	124,775	11,608	29,920	137,482	24,476	5,530	16,836	44,455	81,071
Work-in-process.....do....	88,432	2,467	250,147	974,510	13,813	4,979	35,148	69,924	168,512
Materials, supplies, fuel, etc.....do....	101,634	6,325	76,430	256,042	9,869	10,211	23,816	28,606	127,995
End of year, total.....do....	381,381	19,852	331,398	1,331,948	53,327	23,237	74,176	118,192	391,982
Finished products.....do....	171,830	10,736	26,902	143,549	31,293	6,360	18,673	37,722	80,328
Work-in-process.....do....	92,001	2,641	234,786	979,271	12,695	5,492	34,709	55,259	183,961
Materials, supplies, fuel, etc.....do....	117,550	6,475	69,710	209,128	9,339	11,385	20,794	25,211	127,693
Expenditures for plant and equipment, total.....do....	31,031	9,033	57,315	149,465	6,722	16,410	13,544	56,057	92,609
New, total.....do....	30,511	8,704	55,127	138,734	5,596	16,138	13,262	52,439	88,508
New structures and additions to plant.....do....	12,056	2,700	5,472	44,023	1,025	2,254	3,263	14,023	25,902
New machinery and equipment.....do....	18,455	6,004	49,655	94,711	4,571	13,884	9,999	38,416	62,606
Used plant and equipment.....do....	520	329	2,188	10,731	1,126	272	282	3,618	4,101
Selected operating ratios:									
Payroll/Total employment.....	5,069	4,917	6,197	7,332	5,291	6,128	6,913	5,694	4,991
Production workers/Total employment.....	.82	.79	.72	.53	.79	.73	.62	.67	.75
Man-hours/Production workers.....	1,931	1,985	1,918	2,038	1,850	2,090	2,066	2,054	1,962
Production worker wages/Man-hours.....	2.25	2.20	2.92	2.94	2.35	2.43	3.01	2.18	2.10
Cost of materials and payrolls/Total value of shipments....	.79	.56	.72	.79	.66	.78	.75	.76	.76
Cost of materials/Total value of shipments.....	.62	.30	.41	.40	.24	.53	.32	.29	.38
Adjusted value added/Total employment.....	11,222	13,124	11,332	11,172	9,698	11,758	10,940	8,288	8,248
Salaries and wages/Adjusted value added.....	.45	.37	.55	.66	.55	.52	.63	.69	.61

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3651.—RADIO AND TV RECEIVING SETS											
Establishments.....number..	348	81	48	41	50	32	35	25	15	15	6
All employees:											
Total.....do....	81,264	124	350	570	1,556	2,358	5,651	8,457	11,223	23,800	27,175
Payroll.....\$1,000..	411,924	661	1,712	2,618	7,147	10,953	24,253	38,159	53,378	121,984	151,059
Value added, adjusted.....do....	911,954	1,081	5,831	3,723	13,166	24,887	46,428	74,639	102,688	286,149	353,362
Value of shipments.....do....	2,254,878	2,444	8,469	9,229	26,129	51,480	106,587	145,364	272,588	760,517	872,071
Capital expenditures, new...do....	30,511	1210	317	257	608	864	1,015	1,267	2,147	8,479	15,347
INDUSTRY 3652.—PHONOGRAPH RECORDS											
Establishments.....number..	167	59	26	22	25	14	12	4	4	1	-
All employees:											
Total.....do....	9,554	100	196	299	861	922	1,922	5,254	(D)	(D)	-
Payroll.....\$1,000..	46,981	536	869	1,536	3,590	4,406	8,536	27,508	(D)	(D)	-
Value added, adjusted.....do....	125,388	1,972	1,929	3,922	6,551	8,362	18,001	84,651	(D)	(D)	-
Value of shipments.....do....	180,173	3,038	3,154	6,028	11,148	12,740	28,376	115,689	(D)	(D)	-
Capital expenditures, new...do....	8,704	23,773	462	367	675	623	848	1,956	(D)	(D)	-
INDUSTRY 3661.—TELEPHONE; TELEGRAPH APPARATUS											
Establishments.....number..	90	18	8	8	11	4	10	6	9	4	12
All employees:											
Total.....do....	89,465	25	56	111	309	242	1,726	2,229	84,767	(D)	(D)
Payroll.....\$1,000..	554,375	135	310	648	1,486	1,466	9,403	13,968	526,959	(D)	(D)
Value added, adjusted.....do....	1,013,792	247	488	1,459	3,327	2,603	16,351	28,922	960,395	(D)	(D)
Value of shipments.....do....	1,736,358	506	833	2,002	6,132	3,720	30,703	46,301	1,646,161	(D)	(D)
Capital expenditures, new...do....	55,127	78	57	103	271	69	288	813	53,448	(D)	(D)
INDUSTRY 3662.—RADIO, TV COMMUNICATIONS EQUIPMENT											
Establishments.....number..	1,132	211	138	148	196	134	120	52	49	41	43
All employees:											
Total.....do....	387,384	333	942	2,065	6,191	9,317	18,565	18,235	34,863	66,114	230,759
Payroll.....\$1,000..	2,840,218	3,580	5,456	11,616	36,634	54,472	119,010	119,606	235,772	499,843	1,754,229
Value added, adjusted.....do....	4,327,671	3,623	8,313	19,210	58,200	96,689	182,085	180,672	366,634	735,526	2,676,719
Value of shipments.....do....	7,145,600	6,136	15,190	32,365	98,441	157,469	296,346	297,299	645,991	1,168,309	4,428,054
Capital expenditures, new...do....	138,734	3891	538	692	2,387	3,945	10,006	6,336	12,695	23,407	77,837
INDUSTRY 3671.—ELECTRON TUBES, RECEIVING TYPE											
Establishments.....number..	42	9	6	5	2	1	2	2	4	9	2
All employees:											
Total.....do....	25,850	15	37	104	(D)	1,156	(D)	(D)	3,042	21,496	(D)
Payroll.....\$1,000..	136,768	75	158	425	(D)	4,389	(D)	(D)	14,500	117,221	(D)
Value added, adjusted.....do....	250,681	175	303	719	(D)	4,799	(D)	(D)	35,014	209,671	(D)
Value of shipments.....do....	321,091	242	425	1,098	(D)	6,661	(D)	(D)	49,808	262,857	(D)
Capital expenditures, new...do....	5,596	25	23	34	(D)	76	(D)	(D)	573	4,865	(D)
INDUSTRY 3672.—CATHODE RAY PICTURE TUBES											
Establishments.....number..	151	77	27	19	15	5	2	1	1	3	1
All employees:											
Total.....do....	10,916	130	176	274	468	320	1,412	(D)	(D)	8,136	(D)
Payroll.....\$1,000..	66,888	598	709	1,168	2,117	1,611	8,646	(D)	(D)	52,039	(D)
Value added, adjusted.....do....	128,354	951	1,026	1,828	2,743	3,923	8,034	(D)	(D)	109,849	(D)
Value of shipments.....do....	269,122	1,845	1,988	3,033	6,163	6,542	25,895	(D)	(D)	223,656	(D)
Capital expenditures, new...do....	16,138	406	310	254	496	300	773	(D)	(D)	13,599	(D)

See footnotes at end of table.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963—Continued

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
	INDUSTRY 3673.—ELECTRON TUBES, TRANSMITTING										
Establishments.....number..	57	4	6	2	6	9	10	8	6	5	1
All employees:											
Total.....do....	18,704	81	(D)	(D)	200	634	1,433	2,701	4,082	9,573	(D)
Payroll.....\$1,000..	129,296	425	(D)	(D)	1,139	3,501	9,949	18,710	27,781	67,791	(D)
Value added, adjusted.....do....	204,614	793	(D)	(D)	1,954	5,686	15,802	29,386	49,786	101,207	(D)
Value of shipments.....do....	299,527	1,046	(D)	(D)	3,509	8,339	20,823	39,088	71,534	155,188	(D)
Capital expenditures, new...do....	13,262	98	(D)	(D)	81	134	663	1,773	2,285	8,228	(D)
	INDUSTRY 3674.—SEMICONDUCTORS										
Establishments.....number..	107	9	4	7	13	18	19	8	14	11	4
All employees:											
Total.....do....	56,349	18	32	104	455	1,332	3,173	2,958	10,071	17,516	20,690
Payroll.....\$1,000..	320,875	119	178	668	2,713	7,073	17,333	16,232	52,794	102,756	121,009
Value added, adjusted.....do....	467,035	86	358	1,099	4,211	10,358	32,793	29,086	75,414	115,611	198,019
Value of shipments.....do....	687,817	232	494	1,571	6,097	14,665	45,876	40,801	111,936	188,828	277,317
Capital expenditures, new...do....	52,439	13	31	154	470	696	1,879	1,631	6,451	12,048	29,066
	INDUSTRY 3679.—ELECTRONIC COMPONENTS, N.E.C.										
Establishments.....number..	1,934	506	229	231	337	218	238	109	47	16	3
All employees:											
Total.....do....	176,708	975	1,560	3,164	10,702	15,468	36,455	39,092	32,410	24,234	12,648
Payroll.....\$1,000..	881,920	4,848	7,758	14,688	51,074	75,082	169,598	195,985	155,790	135,184	71,913
Value added, adjusted.....do....	1,457,433	8,497	13,700	23,777	79,766	140,486	274,755	338,540	274,182	207,031	96,699
Value of shipments.....do....	2,332,215	15,411	21,973	40,315	132,553	221,922	458,705	523,145	416,100	343,910	158,181
Capital expenditures, new...do....	88,508	47,998	979	1,286	4,426	6,650	11,329	15,095	12,197	23,451	5,097

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>Includes capital expenditures of \$100-\$200 thousand for plants under construction but not in operation.

<sup>2</sup>Includes capital expenditures of \$2-\$5 million for plants under construction but not in operation.

<sup>3</sup>Includes capital expenditures of \$500-\$1,000 thousand for plants under construction but not in operation.

<sup>4</sup>Includes capital expenditures of \$5-\$10 million for plants under construction but not in operation.

**TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B+C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3651	Radio and TV receiving sets.....1963..	2,254,878	1,991,885	190,751	72,242	91	2,070,838	1,991,885	78,953	96
	1958..	1,548,006	1,364,275	129,669	54,062	91	1,481,575	1,364,275	117,300	92
3652	Phonograph records.....1963..	180,173	174,063	3,822	2,288	99	178,699	174,063	4,636	97
	1958..	148,731	133,016	4,236	11,479	97	136,165	133,016	3,149	98
3661	Telephone; telegraph apparatus....1963..	1,736,358	1,463,433	192,478	80,447	<sup>1</sup> 95	1,538,015	1,463,433	74,582	<sup>1</sup> 95
	1958..	1,207,955	1,077,273	77,243	53,439	<sup>1</sup> 96	1,079,017	1,077,273	1,744	<sup>1</sup> 99
3662	Radio, TV communications equip- ment.....1963..	7,145,600	5,511,882	750,466	883,252	88	6,052,037	5,511,882	540,155	91
	1958 <sup>2</sup> ..	2,852,617	1,971,726	309,307	571,584	86	2,382,330	1,971,726	410,604	83
3671	Electron tubes, receiving type....1963..	321,091	272,436	33,846	14,809	89	287,893	272,436	15,457	95
	1958..	382,526	323,502	38,492	20,532	89	337,274	323,502	13,772	96
3672	Cathode ray picture tubes.....1963..	269,122	223,667	( <sup>2</sup> )	<sup>2</sup> 45,455	( <sup>2</sup> )	248,515	223,667	24,848	90
	1958..	159,252	149,535	5,710	4,007	96	177,251	149,535	27,716	84
3673	Electron tubes, transmitting.....1963..	299,527	213,736	52,807	32,984	80	286,663	213,736	72,927	75
	1958..	258,474	181,055	37,954	39,465	83	224,899	181,055	43,844	81
3674	Semiconductors.....1963..	687,817	575,087	76,342	36,388	88	623,278	575,087	48,191	92
	1958..	250,306	(NA)	(NA)	(NA)	(NA)	236,702	(NA)	(NA)	(NA)
3679	Electronic components, n.e.c.....1963..	2,332,215	1,943,715	242,542	145,958	89	2,501,294	1,943,715	557,579	78
	1958..	1,195,378	(NA)	(NA)	(NA)	(NA)	1,297,570	(NA)	(NA)	(NA)

Note: See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. <sup>1</sup>Revised.

<sup>1</sup>The exact percentages shown, while correct to the extent that they are mathematical calculations, are not very meaningful because of duplication in the value of shipments. See introductory text for this industry.

<sup>2</sup>For 1963, secondary products are included with miscellaneous receipts. The specialization ratio is between 85-90 percent.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Radio and TV receiving sets (SIC 3651)	Other industries
RADIO AND TV RECEIVING SETS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	2,254,878	(X)
	Primary products.....	2,070,838	1,991,885	78,953
36511	Household and automobile radios, and radio-phonograph combinations.....	531,290	496,921	34,369
36512	Household television receivers, including television combinations.....	1,092,310	1,092,165	145
36513	Recorders, audio-amplifiers, phonographs, tuners, speaker systems, and other audio equipment and accessories.....	431,102	386,727	44,375
36510	Radio and TV receiving sets, n.s.k.....	16,136	16,072	64
	Secondary products.....	(X)	190,751	(X)
36112	Testing equipment for testing electrical, radio, and communication circuits and motors.....	(X)	4,079	(X)
36621	Commercial, industrial, and military electronic communication equipment (except broadcast equipment, space satellite-borne communications equipment (complete package)).....	(X)	8,384	(X)
36622	Radio and television broadcast equipment, and closed circuit systems.....	(X)	9,768	(X)
36623	Intercommunication equipment (except telephone and telegraph) and electric alarm and signal systems and devices.....	(X)	3,744	(X)
36625	Electronic search and detection apparatus, including radar, infrared, and sonar.....	(X)	10,105	(X)
36626	Electronic military, industrial, and commercial equipment, n.e.c.....	(X)	10,516	(X)
36794	Coils, transformers, reactors, and chokes for electronic applications.....	(X)	19,709	(X)
36795	Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks).....	(X)	43,065	(X)
	All other secondary products.....	(X)	81,381	(X)
35811	Automatic merchandising machines.....	(X)	(5-10)	(X)
35851	Heat transfer equipment.....	(X)	(over 2)	(X)
36720	Cathode ray picture tubes, including rebuilt tubes.....	(X)	(over 2)	(X)
36740	Solid state semiconductor devices.....	(X)	(10-20)	(X)
36942	Battery charging generators.....	(X)	(over 2)	(X)
37175	Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers.....	(X)	(2-5)	(X)
38424	Electrical hearing aids.....	(X)	(2-5)	(X)
38611	Still picture equipment.....	(X)	(2-5)	(X)
38613	Motion picture equipment.....	(X)	(over 2)	(X)
39312	Organs.....	(X)	(5-10)	(X)
	Miscellaneous receipts.....	(X)	72,242	(X)
	Contract work.....	(X)	14,720	(X)
	Resales.....	(X)	43,140	(X)
	Other miscellaneous receipts.....	(X)	14,382	(X)
	Listing of other industries with over \$2 million shipments of each primary product class:			
36511	3634 Electric housewares and fans.....	(X)	(X)	(over 2)
	3662 Radio, TV communications equipment.....	(X)	(X)	(over 2)
36513	3581 Automatic vending machines.....	(X)	(X)	(over 2)
	3611 Electric measuring instruments.....	(X)	(X)	2,362
	3662 Radio, TV communications equipment.....	(X)	(X)	11,716
	3679 Electronic components, n.e.c.....	(X)	(X)	14,223
	3931 Musical instruments and parts.....	(X)	(X)	(2-5)
		All industries	Phonograph records (SIC 3652)	Other industries
PHONOGRAPH RECORDS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	180,173	(X)
36520	Phonograph records.....	178,699	174,063	4,636
	Secondary products.....	(X)	3,822	(X)
	Miscellaneous receipts.....	(X)	2,288	(X)
	Resales.....	(X)	1,838	(X)
	Other miscellaneous receipts.....	(X)	450	(X)

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Telephone; telegraph apparatus, (SIC 3661)	Other industries
TELEPHONE; TELEGRAPH APPARATUS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	1,736,358	(X)
	Primary products.....	1,538,015	1,463,433	74,582
36611	Telephone switching and switchboard equipment.....	491,339	489,347	1,992
36612	Other telephone and telegraph (wire) apparatus, equipment, and components.....	1,045,173	972,583	72,590
36610	Telephone, telegraph apparatus, n.s.k.....	1,503	1,503	-
	Secondary products.....	(X)	192,478	(X)
36621	Commercial, industrial, and military electronic communication equipment (except broadcast equipment, space satellite-borne communications equipment (complete package)).....	(X)	43,208	(X)
33560	All other secondary products.....	(X)	149,270	(X)
19291	Ammunition over 30 mm. (or 1.18 inches and over) n.e.c.....	(X)	(over 2)	(X)
25420	Metal partitions, shelving, lockers, and office and store fixtures.....	(X)	(over 2)	(X)
33512	Rolled, drawn and extruded copper and copper-base alloy mill shapes.....	(X)	(over 2)	(X)
33560	Rolled, drawn, and extruded nonferrous metal mill products (except copper and aluminum).....	(X)	(over 2)	(X)
35595	Other special industry machinery and equipment.....	(X)	(over 2)	(X)
36112	Test equipment for testing electrical, radio, and communication circuits and motors.....	(X)	(over 2)	(X)
36131	Switchgear, including power switchgear assemblies and other switching and interrupting devices 2300 volts and over.....	(X)	(over 2)	(X)
36220	General industry power circuit devices and controls.....	(X)	(5-10)	(X)
36292	Rectifying apparatus.....	(X)	(over 2)	(X)
36410	Electric lamps (bulbs only) including sealed beam lamps.....	(X)	(over 2)	(X)
36430	Current carrying wiring devices, including lightning rods.....	(X)	(over 2)	(X)
36441	Pole-line and transmission hardware.....	(X)	(over 2)	(X)
36623	Intercommunication equipment (except telephone and telegraph) and electric alarm and signal systems and devices.....	(X)	(2-5)	(X)
36710	Receiving type electron tubes, except cathode ray.....	(X)	(over 2)	(X)
36730	Transmitting, industrial and special purpose electron tubes (except X-ray).....	(X)	(2-5)	(X)
36740	Solid state semiconductor devices.....	(X)	(over 2)	(X)
36793	Resistors for electronic applications.....	(X)	(over 2)	(X)
36795	Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks).....	(X)	(20-50)	(X)
	Miscellaneous receipts.....	(X)	80,447	(X)
	Contract work.....	(X)	1,647	(X)
	Resales.....	(X)	33,357	(X)
	Other miscellaneous receipts.....	(X)	45,443	(X)
36612	Listing of other industries with over \$2 million shipments of each primary product class:			
	3357 Nonferrous wire drawing, etc.....	(X)	(X)	(over 2)
	3662 Radio, TV communications equipment.....	(X)	(X)	(20-50)
	3674 Semiconductors.....	(X)	(X)	(over 2)
		All industries	Radio, TV communications equipment (SIC 3662)	Other industries
RADIO, TV COMMUNICATIONS EQUIPMENT INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	7,145,600	(X)
	Primary products.....	6,052,037	5,511,882	540,155
36621	Commercial industrial and military electronic communication equipment (except broadcast equipment, space satellite-borne communications equipment (complete package)).....	1,080,989	972,384	108,605
36622	Radio and television broadcast equipment, and closed circuit systems.....	150,931	133,279	17,652
36623	Intercommunication equipment (except telephone and telegraph) and electric alarm and signal systems and devices.....	165,801	125,720	40,081
36624	Electronic navigational aids (except missile-borne and space vehicle basin equipment).....	1,246,261	1,212,484	33,777
36625	Electronic search and detection apparatus, including radar, infrared and sonar.....	1,644,863	1,493,695	151,168
36626	Electronic military, industrial, and commercial equipment, n.e.c.....	723,925	595,052	128,873
36627	Space satellite-borne communication systems (complete package).....	28,709	28,709	-
36628	Missile-borne and space vehicle-borne navigation and guidance systems and equipment.....	978,597	919,014	59,583
36620	Radio, TV communications equipment, n.s.k.....	31,961	31,545	416
	Secondary products.....	(X)	750,466	(X)
19410	Sighting and fire-control equipment made from purchased lenses.....	(X)	12,997	(X)
19990	Ordnance and accessories, n.e.c.....	(X)	6,134	(X)
34460	Architectural and ornamental metal work (except curtain wall and other exterior panels).....	(X)	2,283	(X)
34990	Fabricated metal products, n.e.c.....	(X)	3,535	(X)
35595	Other special industry machinery and equipment.....	(X)	3,581	(X)

See footnotes at end of table.



TABLE 5B. **Industry-Product Analysis—Shipments by Product Class and Industry:**  
**1963—Continued**

Prod. class code	Class of products and miscellaneous receipts	All industries	Radio, TV communications equipment (SIC 3662)	Other industries
RADIO, TV COMMUNICATIONS EQUIPMENT INDUSTRY—Continued				
Secondary products—Continued				
35711	Electronic data processing machines, and associated equipment, except typewriters.....	(X)	28,158	(X)
35712	Computing and accounting machines, including cash registers.....	(X)	16,868	(X)
36112	Test equipment for testing electrical, radio, and communication circuits, and motors.....	(X)	30,760	(X)
36215	Motor generator sets and other rotating equipment.....	(X)	4,688	(X)
36220	General industry power circuit devices and controls.....	(X)	5,540	(X)
36513	Recorders, audio amplifiers, phonographs, tuners, speaker systems, and other audio equipment and accessories.....	(X)	11,716	(X)
36730	Transmitting, industrial, and special purpose electron tubes (except X-ray).....	(X)	12,462	(X)
36794	Coils, transformers, reactors and chokes for electronic applications.....	(X)	8,403	(X)
36795	Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks).....	(X)	73,481	(X)
36992	Lamp bulb components, (except glass blanks) and electrical products.....	(X)	4,226	(X)
37216	Other aeronautical services for aircraft.....	(X)	7,880	(X)
37291	Other aircraft parts and auxiliary equipment.....	(X)	35,012	(X)
37292	Guided missile components and subassemblies, n.e.c.....	(X)	39,315	(X)
37294	Research and development on missile parts and components, n.e.c.....	(X)	5,814	(X)
38111	Aircraft, flight, nautical, and navigational instruments and automatic pilots.....	(X)	169,361	(X)
38112	Laboratory and scientific instruments.....	(X)	5,755	(X)
38213	Industrial process instruments.....	(X)	2,129	(X)
38216	Other mechanical measuring and controlling instruments.....	(X)	4,028	(X)
38311	Optical instruments and lenses, except sighting and fire-control equipment.....	(X)	12,223	(X)
	All other secondary products.....	(X)	244,117	(X)
19251	Guided missiles, complete.....	(X)	(20-50)	(X)
19253	Research and development on guided missiles (complete).....	(X)	(10-20)	(X)
19255	All other services on complete missiles and space vehicles.....	(X)	(2-5)	(X)
33620	Copper and copper-base alloy castings.....	(X)	(over 2)	(X)
36133	Low voltage panelboards and distribution boards and switching and interrupting devices 750 volts and under.....	(X)	(5-10)	(X)
36511	Household and automobile radios, and radio-phonograph combinations.....	(X)	(over 2)	(X)
36612	Other telephone and telegraph (wire) apparatus, equipment, and components.....	(X)	(20-50)	(X)
36792	Capacitors for electronic applications.....	(X)	(2-5)	(X)
36920	Primary batteries, dry and wet.....	(X)	(over 2)	(X)
37224	Aircraft engine parts and accessories.....	(X)	(2-5)	(X)
38211	Aircraft engine instruments, except flight.....	(X)	(10-20)	(X)
38220	Automatic temperature controls.....	(X)	(2-5)	(X)
38312	Sighting and fire-control equipment made from lenses, prisms, etc., produced in the same plant.	(X)	(10-20)	(X)
38611	Still picture equipment.....	(X)	(2-5)	(X)
39312	Organs.....	(X)	(over 2)	(X)
	Miscellaneous receipts.....	(X)	883,252	(X)
	Contract work.....	(X)	20,152	(X)
	Resales.....	(X)	184,511	(X)
	Receipts for installation.....	(X)	29,083	(X)
	Receipts for research and development work.....	(X)	560,869	(X)
	Receipts for repair work.....	(X)	31,594	(X)
	Other miscellaneous receipts.....	(X)	57,043	(X)
Listings of other industries with over \$2 million shipments of each primary product class:				
36621	1929 Ammunition, n.e.c.....	(X)	(X)	(over 2)
	3357 Nonferrous wire drawing, etc.....	(X)	(X)	(over 2)
	3571 Computing and related machines.....	(X)	(X)	(over 2)
	3651 Radio and TV receiving sets.....	(X)	(X)	8,384
	3661 Telephone; telegraph apparatus.....	(X)	(X)	43,208
	3679 Electronic components, n.e.c.....	(X)	(X)	7,256
	3722 Aircraft engines and parts.....	(X)	(X)	(over 2)
	3729 Aircraft equipment, n.e.c.....	(X)	(X)	(2-5)
36622	3611 Electric measuring instruments.....	(X)	(X)	(2-5)
	3651 Radio and TV receiving sets.....	(X)	(X)	9,768
36623	3613 Switchgear and switchboards.....	(X)	(X)	(2-5)
	3634 Electric housewares and fans.....	(X)	(X)	(over 2)
	3644 Noncurrent carrying devices.....	(X)	(X)	(over 2)
	3651 Radio and TV receiving sets.....	(X)	(X)	3,744
	3661 Telephone; telegraph apparatus.....	(X)	(X)	(2-5)
	3729 Aircraft equipment, n.e.c.....	(X)	(X)	(2-5)
	3871 Watches and clocks.....	(X)	(X)	(5-10)
36624	1925 Complete guided missiles.....	(X)	(X)	(over 2)
	1941 Sighting and fire-control equipment.....	(X)	(X)	(over 2)
	3571 Computing and related machines.....	(X)	(X)	(2-5)
	3721 Aircraft.....	(X)	(X)	(over 2)
	3729 Aircraft equipment, n.e.c.....	(X)	(X)	(2-5)
	3811 Scientific instruments.....	(X)	(X)	(2-5)
	3861 Photographic equipment.....	(X)	(X)	(over 2)

See footnotes at end of table.

**TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:**  
**1963—Continued**

Prod. class code	Class of products and miscellaneous receipts	All industries	Radio, TV communications equipment (SIC 3662)	Other industries
RADIO, TV COMMUNICATIONS EQUIPMENT INDUSTRY—Continued				
	Listings of other industries with over \$2 million shipments of each primary product class—Con.			
36625	3611 Electric measuring instruments.....	(X)	(X)	(over 2)
	3651 Radio and TV receiving sets.....	(X)	(X)	10,105
	3721 Aircraft.....	(X)	(X)	(50-100)
	3722 Aircraft engines and parts.....	(X)	(X)	(over 2)
	3729 Aircraft equipment, n.e.c.....	(X)	(X)	16,834
	3811 Scientific instruments.....	(X)	(X)	(2-5)
36626	3861 Photographic equipment.....	(X)	(X)	(over 2)
	1925 Complete guided missiles.....	(X)	(X)	18,300
	3611 Electric measuring instruments.....	(X)	(X)	10,318
	3621 Motors and generators.....	(X)	(X)	(2-5)
	3651 Radio and TV receiving sets.....	(X)	(X)	10,516
	3673 Electron tubes, transmitting.....	(X)	(X)	3,284
	3679 Electronic components, n.e.c.....	(X)	(X)	32,230
	3721 Aircraft.....	(X)	(X)	(5-10)
	3729 Aircraft equipment, n.e.c.....	(X)	(X)	9,649
36628	3821 Mechanical measuring devices.....	(X)	(X)	6,116
	1925 Complete guided missiles.....	(X)	(X)	(5-10)
	1941 Sighting and fire-control equipment.....	(X)	(X)	(over 2)
	3721 Aircraft.....	(X)	(X)	(over 2)
	3722 Aircraft engines and parts.....	(X)	(X)	(2-5)
	3729 Aircraft equipment, n.e.c.....	(X)	(X)	(10-20)
	3811 Scientific instruments.....	(X)	(X)	(over 2)
		All industries	Electron tubes, receiving type (SIC 3671)	Other industries
ELECTRON TUBES, RECEIVING TYPE, INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	321,091	(X)
36710	Receiving type electron tubes, except cathode ray.....	287,893	272,436	15,457
	Secondary products.....	(X)	33,846	(X)
36730	Transmitting, industrial, and special purpose electron tubes (except X-ray).....	(X)	14,734	(X)
36795	Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks).....	(X)	16,591	(X)
	All other secondary products.....	(X)	2,521	(X)
	Miscellaneous receipts.....	(X)	14,809	(X)
	Resales.....	(X)	11,149	(X)
	Receipts for work done for others on their own materials.....	(X)	2,732	(X)
	Other miscellaneous receipts.....	(X)	928	(X)
36710	Listing of other industries with over \$2 million shipments of receiving type electron tubes:			
	3661 Telephone; telegraph apparatus.....	(X)	(X)	(over 2)
	3674 Semiconductors.....	(X)	(X)	(over 2)
		All industries	Cathode ray picture tubes (SIC 3672)	Other industries
CATHODE RAY PICTURE TUBES INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	269,122	(X)
36720	Cathode ray picture tubes, including rebuilt tubes.....	248,515	223,667	24,848
	Secondary products and miscellaneous receipts.....	(X)	45,455	(X)
36795	Other electronic components and accessories.....	(X)	3,657	(X)
	All other secondary products and miscellaneous receipts.....	(X)	41,798	(X)
36730	Electron tubes, transmitting.....	(X)	(over 2)	(X)
36720	Listing of other industries with over \$2 million shipments of cathode ray picture tubes:			
	3651 Radio and TV receiving sets.....	(X)	(X)	(over 2)
	3673 Electron tubes, transmitting.....	(X)	(X)	(over 2)
	3674 Semiconductors.....	(X)	(X)	(over 2)

See footnotes at end of table.



**TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:**  
**1963—Continued**

Prod. class code	Class of products and miscellaneous receipts	All industries	Electron tubes, transmitting (SIC 3673)	Other industries
<b>ELECTRON TUBES, TRANSMITTING, INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	299,527	(X)
36730	Transmitting, industrial, and special purpose electron tubes (except X-ray).....	286,663	213,736	72,927
	Secondary products.....	(X)	52,807	(X)
36626	Electronic military, industrial, and commercial equipment, n.e.c.....	(X)	3,284	(X)
36795	Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks).....	(X)	5,820	(X)
	All other secondary products.....	(X)	43,703	(X)
36720	Cathode ray picture tubes, including rebuilt tubes.....	(X)	(over 2)	(X)
36740	Solid state semiconductor devices.....	(X)	(2-5)	(X)
36930	X-ray equipment, including X-ray tubes, and electro-therapeutic apparatus.....	(X)	(5-10)	(X)
38112	Laboratory and scientific instruments.....	(X)	(over 2)	(X)
38311	Optical instruments and lenses, except sighting and fire-control equipment.....	(X)	(over 2)	(X)
	Miscellaneous receipts.....	(X)	32,984	(X)
	Resales.....	(X)	18,730	(X)
	Other miscellaneous receipts.....	(X)	14,254	(X)
36730	Listing of other industries with over \$2 million shipments of electron tubes, transmitting:			
	3661 Telephone; telegraph apparatus.....	(X)	(X)	(2-5)
	3662 Radio and TV communications equipment.....	(X)	(X)	12,462
	3671 Electron tubes, receiving.....	(X)	(X)	14,734
	3672 Cathode ray picture tubes.....	(X)	(X)	(over 2)
	3674 Semiconductors.....	(X)	(X)	(5-10)
		All industries	Semiconductors (SIC 3674)	Other industries
<b>SEMICONDUCTORS INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	687,817	(X)
36740	Solid state semiconductor devices.....	623,278	575,087	48,191
	Secondary products.....	(X)	76,342	(X)
36792	Capacitors for electronic applications.....	(X)	4,268	(X)
36795	Other electronic components and accessories, n.e.c., including parts for electron tubes (except blanks).....	(X)	28,901	(X)
	All other secondary products.....	(X)	43,173	(X)
35595	Other special industry machinery and equipment.....	(X)	(over 2)	(X)
36612	Other telephone and telegraph (wire) apparatus, equipment, and components.....	(X)	(over 2)	(X)
36710	Receiving type electron tubes, except cathode ray.....	(X)	(over 2)	(X)
36720	Cathode ray picture tubes, including rebuilt tubes.....	(X)	(over 2)	(X)
36730	Transmitting, industrial, and special purpose electron tubes (except X-ray).....	(X)	(5-10)	(X)
36793	Resistors for electronic applications.....	(X)	(5-10)	(X)
	Miscellaneous receipts.....	(X)	36,388	(X)
	Receipts for research and developmental work.....	(X)	19,048	(X)
	Resales.....	(X)	5,116	(X)
	Other miscellaneous receipts.....	(X)	12,224	(X)
36740	Listing of other industries with over \$2 million shipments of solid state semiconductor devices:			
	3535 Conveyors.....	(X)	(X)	(over 2)
	3651 Radios and TV receiving sets.....	(X)	(X)	(10-20)
	3661 Telephone; telegraph apparatus.....	(X)	(X)	(over 2)
	3673 Electron tubes, transmitting.....	(X)	(X)	(2-5)
	3679 Electronic components, n.e.c.....	(X)	(X)	14,503
	3822 Automatic temperature controls.....	(X)	(X)	(over 2)

See footnotes at end of table.

**TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:**  
**1963**—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Electronic components, n.e.c. (SIC 3679)	Other industries
<b>ELECTRONIC COMPONENTS, N.E.C., INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	2,332,215	(X)
	Primary products.....	2,501,294	1,943,715	557,579
36792	Capacitors for electronic applications.....	318,831	299,920	18,911
36793	Resistors for electronic applications.....	312,583	230,369	82,214
36794	Coils, transformers, reactors and chokes for electronic applications.....	274,443	233,292	41,151
36795	Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks).....	1,496,668	1,081,847	414,821
36790	Electronic components, n.e.c., n.s.k.....	98,769	98,287	482
	Secondary products.....	(X)	242,542	(X)
36112	Test equipment for testing electrical, radio, and communication circuits, and motors.....	(X)	4,599	(X)
36113	Other electrical measuring instruments.....	(X)	9,662	(X)
36131	Switchgear, including power switchgear assemblies and other switching and interrupting devices 2300 volts and over.....	(X)	3,691	(X)
36211	Fractional horsepower motors.....	(X)	4,696	(X)
36220	General industry power circuit devices and controls.....	(X)	2,410	(X)
36430	Current carrying wiring devices, including lightning rods.....	(X)	10,615	(X)
36513	Recorders, audio amplifiers, phonographs, tuners, speaker systems, and other audio equipment and accessories.....	(X)	14,223	(X)
36621	Commercial, industrial, and military electronic communication equipment, except broadcast, and home-type intercommunication equipment.....	(X)	7,256	(X)
36626	Electronic military, industrial and commercial equipment, n.e.c.....	(X)	32,230	(X)
36740	Semiconductor devices.....	(X)	14,503	(X)
36992	Lamp bulb components (except glass blanks) and other electrical products.....	(X)	5,549	(X)
38111	Aircraft, flight, nautical, and navigational instruments and automatic pilots.....	(X)	4,207	(X)
38213	Industrial process instruments.....	(X)	4,401	(X)
38311	Optical instruments and lenses, except sighting and fire-control equipment.....	(X)	16,739	(X)
	All other secondary products.....	(X)	107,761	(X)
19990	Ordinance and accessories, n.e.c.....	(X)	(2-5)	(X)
22953	Other impregnated and coated fabrics (except rubber coated).....	(X)	(2-5)	(X)
30795	Industrial plastics products.....	(X)	(2-5)	(X)
34612	Job stampings, except automotive.....	(X)	(2-5)	(X)
35197	Parts and accessories for internal combustion engines.....	(X)	(over 2)	(X)
35712	Computing and accounting machines, including cash registers.....	(X)	(2-5)	(X)
35990	Carburetors, pistons and other machine shop products.....	(X)	(2-5)	(X)
36121	Specialty transformers and fluorescent ballasts, except parts.....	(X)	(2-5)	(X)
36291	Capacitors for industrial use (except for electronic applications).....	(X)	(5-10)	(X)
36941	Ignition harness and cable sets.....	(X)	(over 2)	(X)
36945	Other complete electrical equipment for internal combustion engines.....	(X)	(2-5)	(X)
37224	Aircraft engine parts and accessories.....	(X)	(over 2)	(X)
	Miscellaneous receipts.....	(X)	145,958	(X)
	Contract work.....	(X)	11,493	(X)
	Resales.....	(X)	103,823	(X)
	Sales of scrap and refuse and miscellaneous repair work.....	(X)	10,539	(X)
	Other miscellaneous receipts.....	(X)	20,103	(X)
	Listing of other industries with over \$2 million shipments of each primary product class:			
36792	3629 Electric industrial goods, n.e.c.....	(X)	(X)	(2-5)
	3662 Radio and TV communications equipment.....	(X)	(X)	(2-5)
	3674 Semiconductors.....	(X)	(X)	4,268
	3694 Engine electrical equipment.....	(X)	(X)	(over 2)
36793	3571 Computing and related machines.....	(X)	(X)	(over 2)
	3622 Industrial controls.....	(X)	(X)	(over 2)
	3624 Carbon and graphite products.....	(X)	(X)	(2-5)
	3661 Telephone; telegraph apparatus.....	(X)	(X)	(over 2)
	3674 Semiconductors.....	(X)	(X)	(5-10)
36794	3611 Electric measuring instruments.....	(X)	(X)	(2-5)
	3612 Transformers.....	(X)	(X)	4,384
	3629 Electric industrial goods, n.e.c.....	(X)	(X)	2,132
	3651 Radio and TV receiving sets.....	(X)	(X)	19,709
	3662 Radio, TV communications equipment.....	(X)	(X)	8,403

See footnotes at end of table.



TABLE 5B. **Industry-Product Analysis—Shipments by Product Class and Industry:**  
**1963—Continued**

Prod. class code	Class of products and miscellaneous receipts	All industries	Electronic com- ponents, n.e.c. (SIC 3679)	Other industries
	ELECTRONIC COMPONENTS, N.E.C., INDUSTRY—Continued			
36795	Listing of other industries with over \$2 million shipments of each primary product class—Con.			
	2641 Paper coating and glazing.....	(X)	(X)	(over 2)
	3317 Steel pipe and tube.....	(X)	(X)	(over 2)
	3357 Nonferrous wire drawing, etc.....	(X)	(X)	(over 2)
	3449 Miscellaneous metalwork, n.e.c.....	(X)	(X)	(2-5)
	3481 Fabricated wire products, n.e.c.....	(X)	(X)	(2-5)
	3494 Valves and pipe fittings.....	(X)	(X)	(2-5)
	3541 Metal-cutting machine tools.....	(X)	(X)	(2-5)
	3571 Computing and related machines.....	(X)	(X)	74,696
	3611 Electric measuring instruments.....	(X)	(X)	18,375
	3612 Transformers.....	(X)	(X)	(2-5)
	3643 Current carrying devices.....	(X)	(X)	19,476
	3651 Radio and TV receiving sets.....	(X)	(X)	43,065
	3661 Telephone; telegraph apparatus.....	(X)	(X)	(20-50)
	3662 Radio, TV communications equipment.....	(X)	(X)	73,481
	3671 Electron tubes, receiving type.....	(X)	(X)	16,591
	3672 Cathode ray picture tubes.....	(X)	(X)	3,657
	3673 Electron tubes, transmitting.....	(X)	(X)	5,820
	3674 Semiconductors.....	(X)	(X)	28,901
	3699 Electrical products, n.e.c.....	(X)	(X)	2,599
	3729 Aircraft equipment, n.e.c.....	(X)	(X)	13,256
	3821 Mechanical measuring devices.....	(X)	(X)	(5-10)
	3861 Photographic equipment.....	(X)	(X)	(2-5)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Value of shipments including interplant transfers (\$1,000)	
		1963	1958
3651- --	RADIO AND TELEVISION RECEIVING SETS, EXCEPT COMMUNICATIONS TYPES, TOTAL.....	2,070,838	<sup>1</sup> 1,481,575
36511 10	Household and automobile radios, and radio-phonograph combinations:		
	As reported in the census of manufactures <sup>2</sup> .....	531,290	<sup>3</sup> 344,892
	As reported on Census Annual Form MA-36M <sup>2</sup> .....	520,034	<sup>3</sup> 343,662
36512 20	Household television receivers, including television combinations:		
	As reported in the census of manufactures <sup>2</sup> .....	1,092,310	726,595
	As reported on Census Annual Form MA-36M <sup>2</sup> .....	1,067,061	691,242
36513 --	Recorders, audio amplifiers, phonographs, tuners, speaker systems, and other audio equipment and accessories.....	431,102	<sup>1</sup> <sup>3</sup> 409,445
	As reported on the Census Annual Forms MA-36M and MA-36N <sup>2</sup> .....	394,893	(NA)
36513 20	Phonographs and record players:		
	As reported in the census of manufactures <sup>2</sup> .....	175,912	(NA)
	As reported on Census Annual Form MA-36M <sup>2</sup> .....	174,089	<sup>3</sup> 204,334
36513 30	Recorders, tuners, and other home-type electronic equipment for sale separately:		
	As reported in the census of manufactures <sup>2</sup> .....	125,452	(NA)
	As reported on Census Annual Form MA-36M <sup>2</sup> .....	103,924	<sup>1</sup> 83,267
36513 51	Loudspeakers, speaker systems:		
	As reported in the census of manufactures <sup>2</sup> .....	71,277	63,714
	As reported on Census Annual Form MA-36N <sup>2</sup> .....	69,510	(X)
36513 55	Microphones:		
	As reported in the census of manufactures <sup>2</sup> .....	18,868	11,763
	As reported on Census Annual Form MA-36N <sup>2</sup> .....	17,555	(X)
36513 60	Home-type electronic kits to be assembled by consumer for radio receivers, tuners, amplifiers, and other audio equipment:		
	As reported in the census of manufactures <sup>2</sup> .....	14,544	13,326
	As reported on Census Annual Form MA-36N <sup>2</sup> .....	13,944	(X)
36513 70	Chassis for home-type radio receivers, for sale separately:		
	As reported in the census of manufactures <sup>2</sup> .....	( <sup>4</sup> )	1,311
	As reported on Census Annual Form MA-36M <sup>2</sup> .....	( <sup>4</sup> )	1,358
36513 80	Chassis for home-type television receivers, for sale separately:		
	As reported in the census of manufactures <sup>2</sup> .....	<sup>4</sup> 12,055	4,702
	As reported on Census Annual Form MA-36M <sup>2</sup> .....	<sup>4</sup> 8,819	2,916
36513 90	Other commercial sound equipment, except broadcast, including complete public address systems, music distribution apparatus, etc.:		
	As reported in the census of manufactures <sup>2</sup> .....	9,485	19,065
	As reported on Census Annual Form MA-36N <sup>2</sup> .....	7,052	(X)
36513 00	Recorders, audio amplifiers, audio equipment, etc., n.s.k.....	3,509	7,964
36510 00	Radio and television receiving sets, n.s.k.....	16,136	643

Product code	Product	Unit of measure	1963			1958		
			Production for all purposes (quantity)	Total shipments, including interplant transfers		Production for all purposes (quantity)	Total shipments, including interplant transfers	
				Quantity	Value (\$1,000)		Quantity	Value (\$1,000)
3652- --	PHONOGRAPH RECORDS, RECORD BLANKS, AND PRERECORDED TAPES, TOTAL.....		(X)	(X)	178,699	(X)	(X)	136,165
36520 22	Disc records (except electrical transcriptions):							
	45 r.p.m. - for own label.....	1,000 units	98,827	70,686	15,420	82,835	70,629	19,509
36520 24	45 r.p.m. - on contract basis for others.....	do.....	(X)	111,629	12,640	(X)	114,478	13,382
36520 31	33-1/3 r.p.m. for own label:							
	Stereophonic.....	do.....	58,643	31,017	35,368	71,259	59,900	70,972
36520 33	Monaural.....	do.....	68,865	52,100	40,213			
36520 35	33-1/3 r.p.m. - on contract basis for others:							
	Stereophonic.....	do.....	(X)	40,030	21,100	(X)	42,741	15,709
36520 37	Monaural.....	do.....	(X)	36,057	22,910			
36520 61	Other speeds, including 78 r.p.m. and electrical transcriptions of all speeds.....	do.....	15,803	23,749	11,942	22,799	40,218	8,503
36520 81	Prerecorded tapes.....	1,000 reels	1,425	1,443	3,801	375	339	1,285
36520 91	Record blanks (disc type and other).....		(X)	(X)	5,506	(X)	(X)	4,196
36520 00	Phonograph records, n.s.k.....		(X)	(X)	9,799	(X)	(X)	2,609

See footnotes at end of table.



TABLE 6A-1. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of sets)	Value (\$1,000)	Quantity (number of sets)	Value (\$1,000)
3661- --	TELEPHONE AND TELEGRAPH APPARATUS, TOTAL.....	(X)	1,538,015	(X)	1,079,017
36611 --	Telephone switching and switchboard equipment.....	(X)	491,339	(X)	434,708
36611 11	Telephone switchboard (central office and PBX subscriber A and B, trunk and toll).....	(X)	96,725	(X)	61,803
36611 53	Dial automatic telephone switching equipment (central office, PBX, and toll) excluding electronic switching equipment.....	(X)	378,866	}	(X) 372,905
36611 55	Electronic telephone switching equipment (central office, PBX, and toll).....	(X)	15,748		
36612 --	Other telephone and telegraph (wire) apparatus, equipment, and components.	(X)	1,045,173	(X)	637,339
	Telephone carrier equipment and repeater equipment (including open-wire and cable transmission):	}	(X) 223,310	(X)	136,814
36612 13	Carrier equipment.....				
36612 15	Repeater equipment.....				
36612 31	Telephone instrument sets (transmitters and receivers with or without dial, for subscriber use only).....	8,534,246	120,393	6,879,767	101,077
36612 61	Other telephone apparatus and equipment, including components.....	(X)	572,914	(X)	307,623
	Telegraph (wire) apparatus equipment, and components, including military:	}	(X) 116,669	(X)	91,825
36612 73	Teleprinter units (a unit is interpreted as a perforator, a reperforator, a transmitting unit, a receiving unit, a teleprinter whether it be page or tape printer sending or receiving or both. Such units combined in one case or housing are considered separate units).....				
36612 75	Telegraph switching equipment.....				
36612 77	Telegraph carrier systems.....				
36612 79	All other telegraph apparatus, equipment and components, including facsimile.....				
36612 81	Data sets (digital or analog).....	14,447	9,969	(NA)	(NA)
36612 00	Other telephone and telegraph (wire) apparatus, equipment and components, n.s.k.....	(X)	1,918	(X)	-
36610 00	Telephone and telegraph apparatus, n.s.k.....	(X)	1,503	(X)	6,970

Product code	Product	Value of shipments including interplant transfers (\$1,000)	
		1963	1958
3662- --	RADIO AND TV COMMUNICATION EQUIPMENT, TOTAL.....	6,052,037	2,382,330
36621 --	Commercial, industrial, and military electronic communication equipment, except broadcast equipment and home-type intercommunication equipment.....	1,080,989	416,001
	Commercial, industrial, and military electronic communication equipment (except broadcast equipment, space satellite-borne communications systems (complete package), home-type intercommunication equipment, and microwave and mobile telephone communication equipment):		
36621 10	As reported in the census of manufactures <sup>2</sup> .....	1,013,221	372,125
	As reported on Census Annual Form MA-36N <sup>2</sup> .....	980,485	(X)
36621 77	Microwave telephone (communication) equipment.....	50,829	38,589
36621 79	Mobile telephone (communication) equipment.....	14,025	635
36621 00	Commercial, industrial and military electronic communication equipment, n.s.k.....	2,914	4,652
	Radio and television broadcast equipment, and closed circuit systems:		
36622 10	As reported in the census of manufactures <sup>2</sup> .....	150,931	53,812
	As reported on Census Annual Form MA-36N <sup>2</sup> .....	143,397	(X)
36623 --	Intercommunication equipment (except telephone and telegraph) and electric alarm systems and signals systems and devices.....	165,801	129,786
	Intercommunication equipment, excluding railway signals:		
36623 10	As reported in the census of manufactures <sup>2</sup> .....	135,606	83,402
	As reported on Census Annual Form MA-36N <sup>2</sup> .....	129,143	(X)
	Railway signals and attachments, electric:		
36623 21	Railroad highway grade crossing signals, exclusive of relays and other control apparatus.....	3,891	3,419
36623 29	Other railway signal systems and safety control equipment.....	24,515	37,721
36623 00	Intercommunication equipment (except telephone and telegraph) and electric alarm and signals systems and devices, n.s.k.....	1,789	5,244

See footnotes at end of table.

TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Value of shipments including interplant transfers (\$1,000)	
		1963	1958
3662- --	RADIO AND TV COMMUNICATION EQUIPMENT—Continued		
36624 10	Electronic navigational aids, except missile-borne and space-vehicle borne equipment: As reported in the census of manufactures <sup>2</sup> ..... As reported on Census Annual Form MA-36N <sup>2</sup> .....	1,246,261 1,224,230	425,542 (X)
36625 10	Electronic search and detection apparatus, including radar, infrared and sonar: As reported in the census of manufactures <sup>2</sup> ..... As reported on Census Annual Form MA-36N <sup>2</sup> .....	1,644,863 1,563,909	1,016,440 (X)
36626 10	Electronic military, industrial, and commercial equipment, n.e.c.: As reported in the census of manufactures <sup>2</sup> ..... As reported on Census Annual Form MA-36N <sup>2</sup> .....	723,925 662,984	<sup>1</sup> 340,749 (X)
36627 10	Space satellite-borne communications systems (complete package): As reported in the census of manufactures <sup>2</sup> ..... As reported on Census Annual Form MA-36N <sup>2</sup> .....	28,709 28,409	(NA) (X)
36628 10	Missile-borne and space vehicle-borne navigation and guidance systems and equipment: As reported in the census of manufactures <sup>2</sup> ..... As reported on Census Annual Form MA-36N <sup>2</sup> .....	978,597 961,391	(NA) (X)
36620 00	Radio and TV communication equipment, n.s.k.....	31,961	-
3671- --	ELECTRON TUBES, RECEIVING TYPE, TOTAL.....	287,893	337,274
36710 00	Radio and television receiving type electron tubes, except cathode ray: As reported in the census of manufactures <sup>2</sup> ..... As reported on Census Annual Form MA-36N <sup>2</sup> .....	287,893 276,098	337,274 (X)
3672- --	CATHODE RAY PICTURE TUBES, TOTAL.....	248,515	177,251
36720 00	Cathode ray picture tubes, including rebuilt: As reported in the census of manufactures <sup>2</sup> ..... As reported on Census Annual Form MA-36N <sup>2</sup> .....	248,515 243,290	177,251 (X)
3673- --	TRANSMITTING, INDUSTRIAL, AND SPECIAL PURPOSE ELECTRON TUBES, TOTAL.....	286,663	224,899
36730 00	Transmitting, industrial, and special purpose electron tubes: As reported in the census of manufactures <sup>2</sup> ..... As reported on Census Annual Form MA-36N <sup>2</sup> .....	286,663 281,355	224,899 (X)
3674- --	SEMICONDUCTORS, TOTAL.....	623,278	236,702
36740 00	Solid state semiconductor devices: As reported in the census of manufactures <sup>2</sup> ..... As reported on Census Annual Form MA-36N <sup>2</sup> .....	623,278 608,265	236,702 (X)
3679- --	ELECTRONIC COMPONENTS AND ACCESSORIES, N.E.C., TOTAL.....	2,501,294	<sup>5</sup> 1,297,570
36792 00	Capacitors for electronic applications: As reported in the census of manufactures <sup>2</sup> ..... As reported on Census Annual Form MA-36N <sup>2</sup> .....	<sup>6</sup> 318,831 <sup>6</sup> 305,911	<sup>6</sup> 183,562 (X)
36793 00	Resistors for electronic applications: As reported in the census of manufactures <sup>2</sup> ..... As reported on Census Annual Form MA-36N <sup>2</sup> .....	312,583 312,386	146,788 (X)
36794 00	Coils, transformers, reactors, and chokes for electronic application: As reported in the census of manufactures <sup>2</sup> ..... As reported on Census Annual Form MA-36N <sup>2</sup> .....	<sup>6</sup> 274,443 <sup>6</sup> 259,325	<sup>6</sup> 191,984 (X)
36795 --	Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks).....	1,496,668	<sup>5</sup> 685,015
36795 00	Electronic components, n.e.c., except phonograph needles and cutting styli: As reported in the census of manufactures <sup>2</sup> ..... As reported on Census Annual Form MA-36N <sup>2</sup> .....	1,459,552 1,342,011	674,084 (X)
36795 47	Phonograph needles and cutting styli.....	37,116	10,931
36790 00	Electronic components and accessories, n.s.k.....	98,769	90,221

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Figure differs from that previously published for 1958. TV tuners (\$34,721 thousand) previously classified in Industry 3651 are now included under code 3662610 in 1963.

Footnotes continued on next page



TABLE 6A-1. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Footnotes for table 6A-1--36D--Continued

<sup>2</sup>For these products, figures were also collected in the Bureau of the Census commodity survey program. In lieu of asking for detailed statistics on these products in the census of manufactures, respondents were asked to report only value of shipments for specified groups of products for which separate figures had previously been collected in the commodity survey. In most cases, the value figures reported in the census of manufactures for each group of products agreed closely with the corresponding figures reported in the commodity survey. However, there were minor differences between the census figures and the commodity survey figures. These variations were due primarily to the following reasons:

- a. Better coverage in census of manufactures program. Coverage in the annual surveys will be supplemented by adding respondents not currently in the survey but making the specified product according to their census of manufactures report.
- b. Use of different reporting periods (calendar year vs. fiscal year).
- c. Use of estimates in reporting figures on the commodity survey, whereas census of manufactures figures generally represent more exact shipment figures.

See tables 6A-2 and 6A-3 for more detailed product data.

<sup>3</sup>Figure differs from that previously published for 1958. Phonographs and record players previously included under code 3651110 are now included under code 3651320.

<sup>4</sup>In 1963, statistics on chassis for home-type radio receivers, for sale separately, are combined with chassis for home-type television receivers, for sale separately, in order to avoid disclosing figures of individual companies.

<sup>5</sup>Includes \$66,436 thousand of connectors for electronic application which were previously classified in industry 3643, Current Carrying Devices.

<sup>6</sup>Data for 1958 for product class 36792, Capacitors for electronic applications, include \$9,449 thousand for permeability tuning devices. These tuning devices are included in product class 36794, Coils, transformers, reactors, and chokes for electronic applications in 1963.

**TABLE 6A-2. Radio Receivers and Television Sets—Quantity and Value of Shipments: 1963 and 1958**

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity*	Value (\$1,000)
36511 --	Household and automobile radios, and radio-phonograph combinations, total.....	1,000 units...	18,155	520,034	12,734	343,662
	Home-type radio receivers, complete sets (except radio-phonograph combinations and television sets), total.....	...do.....	9,313	150,670	8,012	160,074
	Socket powered (except consoles), total.....	...do.....	5,338	87,215	4,663	77,555
	Table models (except clock), total.....	...do.....	2,334	40,484	2,587	39,613
36511 01	AM.....	...do.....	1,535	16,206	2,336	31,031
36511 02	AM-FM and FM only (including FM converters).....	...do.....	799	24,278	251	8,582
	Clock models, total.....	...do.....	3,004	46,731	2,076	37,942
36511 03	AM.....	...do.....	2,754	39,708	2,076	37,942
36511 04	AM-FM.....	...do.....	250	7,023		
36511 09	Transistor.....	...do.....	3,923	59,899	2,438	63,101
36511 05	Other home-type radios (battery-powered table and console models; socket-powered consoles; and portables, except transistor type).....	...do.....	52	3,556	911	19,418
36511 06						
36511 07						
36511 08						
	Home-type radio-phonograph combinations, complete sets including built-in recorders, excluding TV sets, total.....	...do.....	1,244	192,720	787	81,822
	Table models (including portable sets), total.....	...do.....	217	12,618	403	22,358
36511 13	AM.....	...do.....	154	7,201	403	22,358
36511 14	AM-FM.....	...do.....	63	5,417		
	Console models, total.....	...do.....	1,027	180,102	384	59,464
36511 15	AM.....	...do.....	18	1,785	203	22,311
36511 16	AM-FM.....	...do.....	1,009	178,317	181	37,153
36511 17	Automobile radios (broadcast receivers only).....	...do.....	7,598	176,644	3,935	101,766
36512 --	Household television receivers (color and black and white), including television combinations, total.....	...do.....	7,734	1,067,061	5,281	691,242
	Table models, including portable sets (with or without conventional radio):					
36512 01	Black and white.....	...do.....	4,737	459,823	3,079	336,087
36512 02	Color.....	...do.....	69	20,362		
	Console and consolette models (with or without conventional radio):					
36512 03	Black and white.....	...do.....	1,954	273,790	2,124	338,806
36512 04	Color.....	...do.....	623	206,717		
	Radio-phonograph-TV/recorder combination models:					
36512 05	Black and white.....	...do.....	296	75,789	78	16,349
36512 06	Color.....	...do.....	55	30,580		
36513 --	Phonographs and record player attachments; radio and television chassis sold separately; recorders, tuners, and other similar home-type electronic equipment, total.....		(X)	394,893	(X)	399,742
	As reported in Census Annual Form MA-36M.....		(X)	286,832	(X)	291,875
	Phonographs, total.....	1,000 units...	2,699	170,877	3,750	189,483
36513 01	Mechanical (acoustical) reproduction phonographs (with spring or electric motor).....	...do.....	356	2,418	434	3,731
	Electronic phonographs (with speaker), total.....	...do.....	3,343	168,459	3,316	185,752
36513 02	Coin operated.....	...do.....	54	43,320	52	37,152
	Noncoin operated, total.....	...do.....	3,289	125,139	3,264	148,600
36513 03	Monaural.....	...do.....	1,596	33,638	3,264	148,600
36513 04	Stereophonic.....	...do.....	1,693	91,501		
	Record player attachments (including record players with automatic record changing devices), total.....	...do.....	119	3,212	615	14,851
36513 05	Complete with case (plug-in or induction types only).....	...do.....	76	1,556	387	9,664
36513 06	For installation in combination sets and custom-built sets..	...do.....	43	1,656	228	5,187

See footnotes at end of table.



**TABLE 6A-2. Radio Receivers and Television Sets—Quantity and Value of Shipments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
36513 --	Phonographs and record player attachments; radio and television chassis sold separately; recorders, tuners, and other similar home-type electronic equipment—Continued As reported in Census Annual Form MA-36M—Continued					
	Recorders, tuners, and other similar home-type electronic equipment, for sale separately, total.....	1,000 units...	2,291	103,924	(X)	83,267
36513 31	Recorders, home-type, tape, wire, and disc (except radio-phonograph-TV-recorder combinations; office recording machines; and recorder mechanisms).....	...do.....	412	43,511	(X)	44,892
36513 62	Audio amplifiers and pre-amplifiers, home-type.....	...do.....	228	17,316	504	34,663
36513 65	Tuners, AM, FM, and AM-FM and tuner-amplifier combinations..	...do.....	1,060	35,433	51	3,712
36513 67	Other home-type electronic equipment (converters, adapters, etc.).....	...do.....	591	7,664	(X)	( <sup>2</sup> )
36513 71	Chassis for home-type radio receivers, for sale separately.... Chassis for home-type television receivers, for sale separately..... As reported in Census Annual Form MA-36N.....	...do.....	16	421	29	1,358
36513 72		...do.....	592	8,398	38	2,916
36513 87		...do.....	(X)	108,061	(X)	107,867
36513 88						
36513 51	Speakers.....	.....	(X)	69,510	(X)	63,714
36513 55	Microphones.....	Units.....	2,770,788	17,555	1,551,000	11,763
36513 60	Home entertainment equipment kits.....	...do.....	359,155	13,944	(X)	13,326
36513 93	Music distribution systems.....	.....	(X)			
36513 94	Public address systems.....	.....	(X)	7,052	(X)	<sup>2</sup> 19,064

Source: Current Industrial Reports Series M36M "Home-type Radio Receivers and Television Sets, Automobile Radios, Phonographs, and Record Player Attachments" and M36N "Selected Electronics and Associated Products."

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>Includes a negligible amount of console models.

<sup>2</sup>Other home-type electronic equipment (code 3651367) were included with music distribution systems (code 3651393) and public address systems (code 3651384) in 1958.

**TABLE 6A-3. Selected Electronic and Associated Products-Quantity and Value of Shipments: 1963 and 1958**

Product code	Product	Total shipments including interplant transfers					
		1963		1958			
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)		
36621 --	Commercial, industrial, and military electronic communication equipment (except broadcast equipment, space satellite-borne communications systems (complete package), home-type intercommunication equipment, and microwave and mobile telephone communication equipment), total.....	(X)	980,485	(X)	<sup>1</sup> 372,125		
	Receivers, radio communications (point-to-point) except amateur, and Citizens Radio, sold separately:						
36621 21	Very low frequency and low frequency (below 300 kc).....	(X)	173	{	(X)		
36621 23	Medium and high frequency (300 kc to 30 mc).....	(X)	23,065				
36621 24	Very high frequency and ultra high frequency -- to 890 megacycles.....	{	(X) 49,003				
36621 25	Microwave line-of-sight; microwave scatter; and microwave video relay, except studio transmitter link.....						
	Mobile receivers, except amateur and Citizens Radio, sold separately:						
36621 71	Airborne.....	{	(X)	{			
36621 73	Marine.....						
36621 75	Ground.....						
36621 91	Light communications systems and equipment, electronic (including infrared).....	(X)	3,009	{			
	Point-to-point radio communication systems such as Dew Line, White Alice, etc., (except real estate), sold as a complete package (antennae, power supplies, receivers, transmitters, multiplexing and demodulating equipment, etc.):						
36621 11	Very low frequency and low frequency (below 300 kc).....	(X)	42,346				
36621 13	Medium and high frequency (300 kc to 30 mc).....	(X)	43,667				
36621 14	Very high frequency and ultra high frequency -- to 890 megacycles.....	{	(X) 104,493				
36621 15	Microwave line-of-sight; microwave scatter; and microwave video relay, except studio-transmitter link.....						
	Transmitters and RF power amplifiers, radio communications (point-to-point), except amateur and Citizens Radio, sold separately:						
36621 31	Very low frequency and low frequency (below 300 kc).....	(X)	15,847	{			
36621 33	Medium and high frequency (300 kc to 30 mc).....	(X)	42,566				
36621 34	Very high frequency and ultra high frequency -- to 890 megacycles.....	{	(X) 47,614				
36621 35	Microwave line-of-sight; microwave scatter; and microwave video relay, except studio television link.....						
36621 43	Associated ground equipment for space satellite communications systems (including telemetering, synchronization, relay, and command and control equipment).....	(X)	26,887	{	(X)		
36621 45	Sonar communications systems and equipment.....	(X)	( <sup>2</sup> )				
36621 47	Carrier current communications systems and equipment, n.e.c.....	(X)	20,803				
	Mobile radio systems, sold as complete packages, including transceivers, base stations, power amplifiers, antennae, repeaters, transmitters, receivers, etc., except amateur and Citizens Radio:						
36621 51	Airborne.....	(X)	26,311	{			
36621 53	Marine.....	(X)	5,396				
36621 55	Ground.....	(X)	188,754				
	Mobile transceivers and transmitters, except amateur and Citizens Radio, sold separately:						
36621 61	Airborne.....	5,295	11,394	{			
36621 63	Marine.....	{	(X) 76,239				
36621 65	Ground.....						
36621 81	Portable receivers, transceivers, and transmitter-receivers, except amateur and Citizens Radio.....	27,427	16,547	{			
	Amateur radio communications equipment, fixed, mobile, and portable:						
36621 83	Transmitters and RF power amplifiers.....	(X)	2,416				
36621 85	Receivers.....	23,697	5,213				
36621 87	Other (transceivers, transmitter-receivers, etc.).....	(X)	10,931	{			
36621 89	Citizens Radio communication equipment.....	170,396	15,274				
36621 93	Electronic checkout, monitoring, evaluation, and other electronic support equipment for communications systems.....	(X)	33,937				
36621 98	Other communications equipment, sold separately.....	(X)	<sup>2</sup> 129,813				
36621 92	Communications antennae, below 890 megacycles.....	(X)	20,943	{			
36621 94	Microwave, antenna systems above 890 megacycles (horns, parabolas, etc.), exclude structural towers, sold separately.....	(X)	11,641				

See footnotes at end of table.



TABLE 6A-3. **Selected Electronic and Associated Products-Quantity and Value of Shipments: 1963 and 1958-Continued**

Product code	Product	Total shipments including interplant transfers					
		1963		1958			
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)		
36622 --	Radio and television broadcast equipment, and closed circuit systems, total.....	(X)	143,397	(X)	53,812		
	Transmitters, RF power amplifiers, and related equipment:						
36622 32	AM.....	(X)	5,985	(X)	5,156		
36622 33	FM.....	(X)	1,425				
36622 34	TV.....	(X)	6,038				
36622 35	TV boosters and repeaters.....	(X)	5,608	(X)	6,792		
36622 36	Other (broadcast transmission line equipment, phasing equipment, etc.).....						
36622 51	Studio transmitter links (STL) and remote pickups equipment.....	(X)	1,479				
	Audio equipment:						
36622 12	Amplifiers.....	(X)	9,680	(X)	19,658		
36622 13	Control consoles and switchers.....	809	1,344				
36622 14	Broadcast recorders.....	12,371	7,430				
36622 15	Turntables.....	35,081	1,696				
36622 16	Other (power supplies, terminal equipment, etc.).....	(X)	6,610				
	Video equipment:						
36622 22	Amplifiers.....	3,887	1,202				
36622 23	Cameras (TV and TV camera chains).....	(X)	8,762				
36622 24	Control consoles and switchers.....	393	2,317				
36622 25	Film equipment (broadcast film cameras, multiplexers, projectors, etc.).....	(X)	4,732				
36622 26	Monitors.....	8,272	2,708				
36622 27	Video tape recorders.....	(X)	27,240				
36622 28	Other (power supplies, synchronization equipment, terminal equipment, etc.).....						
36622 30	Broadcasting transmitting antennae.....	(X)	831				
36622 31	Community antennae systems except structural towers, sold separately....	(X)	5,364				
	Other broadcast, studio, theatre, and commercial sound equipment, sold separately (excluding studio lighting equipment, radiating and supporting towers, and closed circuit TV and cameras):						
36622 37	Broadcast and studio sound effects equipment.....	(X)	4,045	(X)	7,485		
36622 38	Theatre sound equipment.....						
	Electronic kits to be assembled by purchaser:						
36622 92	Amateur equipment kits.....	(X)	5,525	(X)	7,485		
36622 93	Test and measuring equipment kits.....	(X)	18,561				
36622 94	Other kits.....						
36622 41	Closed circuit television systems and equipment.....	(X)	14,815	(X)	7,710		
36622 00	Radio and television broadcast equipment, and closed circuit systems, n.s.k.....	(X)	-	(X)	7,011		
Product code	Product	Value of shipments including interplant transfers (\$1,000)					
		1963		1958			
36623 --	Intercommunication equipment (except telephone and telegraph) and electric alarm systems and signal systems and devices, total.....			129,143	83,402		
36623 11	Intercommunication equipment, electronically amplified (except intercommunication equipment designed primarily for use in telephone and telegraph networks).....			69,399	26,169		
36623 42	Vehicular and pedestrian traffic signal heads, including parts and accessories.....			12,312	12,496		
36623 43	Electronic and electro-mechanical controllers, detectors, and sensors; including parts and accessories			6,026			
36623 47	Alarm systems, electronic.....			41,406	44,737		
36624 --	Electronic navigational aids, except missile-borne and space vehicle-borne equipment, total.....			1,224,230	3425,542		
36624 13	Nonmissile and space vehicle guidance equipment (ground, ship, or airborne command guidance systems, etc.).....			269,596	424,832		
36624 14	Electronic checkout, launching, and other missile and space vehicle support systems (ground, ship, and air).....			239,838			
	Navigational systems and equipment (NAV AIDS) for aircraft, ship and ground navigation (autopilots, beacons, transponders, collision warning devices, DECCA, DME, ILS, Doppler navigation systems, inertial navigational systems, optical/laser, LORAN, radio compasses and direction finders, SHORAN, TACAN, VOR, VORTAC equipment, etc.):						
36624 15	Airborne navigational systems.....			425,851			
36624 16	Surface (ship and ground) navigational systems.....			78,745			
36624 17	Underwater navigational systems.....			133,539			
36624 18	Electronic checkout, monitoring, evaluation, and other electronic support equipment for navigational systems and equipment.....			76,661			
36624 00	Electronic navigational aids, n.s.k.....			-	710		

See footnotes at end of table.

TABLE 6A-3. **Selected Electronic and Associated Products-Quantity and Value of Shipments: 1963 and 1958-Continued**

Product code	Product	Value of shipments including interplant transfers (\$1,000)	
		1963	1958
36625 --	Electronic search and detection apparatus, including radar, infrared and sonar, total.....	1,563,909	1,016,440
36625 12	Light reconnaissance and surveillance electronic systems and equipment,including electronic checkout, monitoring, evaluation, and other electronic support equipment for light reconnaissance and surveillance electronic systems (infrared, ultraviolet, and visible light).....	235,542	}
36625 25	Miscellaneous search, detection, identification, and tracking systems and equipment.....	20,162	
	Radar systems and equipment:		
	Search, detection, and acquisition radar systems and equipment (BMEWS, airborne, and other early warning radars, air traffic control radars, air defense and fighter control radars, ship radars, harbor control radars, meteorological radars, etc.):		
36625 42	Airborne and missile/space radars.....	105,938	}
36625 44	Ship (marine) radars.....	52,174	
36625 46	Ground radars.....	315,142	}
	Tracking radar systems and equipment (fire-control, bombing, bombing-navigational radars, aircraft and missile tracking radars, etc.):		
36625 62	Airborne and missile/space radars.....	58,674	}
36625 64	Ship (marine) radars.....	305,373	
36625 66	Ground radars.....		
	Instrumentation radar systems and equipment (altimeters, highway speed control radars, missile and space satellite tracking range radars, GCA and other precision approach radars, etc.):		
36625 72	Airborne and missile/space radars.....	21,075	}
36625 74	Ship (marine) radars.....		
36625 76	Ground radars.....	47,958	}
36625 82	Electronic checkout, monitoring, evaluation, and other electronic support equipment for radar systems.....	86,079	
	Sonar search, detection, and tracking systems and equipment, including ASW (depth finding, fire-control, fusing, guidance, hydrophones, mapping, sonarbuys, navigation, sonar fish finders, sonar range instrumentation, and other):		
36625 52	Surface ship applications (destroyers, destroyer escorts, etc.).....	41,564	}
36625 53	Submarine applications.....	28,387	
36625 54	Submerged fixed systems.....	15,638	}
36625 55	Airborne.....	35,052	
36625 56	Electronic checkout, monitoring, evaluation, and other electronic support equipment for sonar systems.....	35,423	44,618
36625 91	Specialized command and control data processing and display equipment sold separately from complete systems.....	159,728	}
36625 00	Electronic search and detection apparatus, including radar, infrared and sonar, n.s.k.....	-	
36626 --	Electronic military, industrial, and commercial equipment, n.e.c.....	662,984	340,749
36626 31	Telemetry equipment.....	158,351	50,367
	Amplifiers, except audio, RF power, and video, sold separately:		
36626 61	Magnetic.....	5,620	}
36626 65	Pulse.....	2,492	
36626 67	DC.....	6,002	}
36626 69	Other (differential, facsimile, etc.).....	11,199	
36626 71	Automotive equipment, electronic.....	10,598	}
36626 81	Consumer electronic equipment, n.e.c.....	74,583	
	Ultrasonic equipment:		
36626 22	Cleaners.....	2,170	}
36626 24	Drills, solders, and welders.....	615	
36626 26	Other.....	3,863	}
36626 52	Facsimile communications equipment.....	3,839	
36626 91	Electronic trainers and simulators.....	64,319	}
36626 92	Electronic teaching machines and teaching aids.....	7,604	
36626 97	Miscellaneous electronic systems, equipment, and subassemblies, n.e.c.....	274,741	}
36626 59	Geophysical electronic equipment (exploration and other specialized geophysical equipment).....	5,579	
	Meteorological electronics equipment:		
36626 53	Automatic weather stations, complete airborne, ground and marine packages (sensors, computers, recorders, etc.).....	}	}
36626 54	Automatic weather tracking equipment (DF).....		
36626 55	Ceilometers, transitometers, and other electronic end of runway equipment.....	2,339	}
36626 56	Space satellite meteorological systems (complete systems: TV scanning, recording equipment, infrared equipment, telemetry links, etc.).....		
36626 33	Specialized meteorological telemetering equipment.....	7,311	}
36626 57	Particle accelerator electronics equipment and subassemblies for betatrons, cyclotrons, synchrotrons, etc.; linear accelerators: dynamotrons Vandergraff, traveling wave, etc.....	18,131	
36626 58	Radio astronomy equipment.....	2,949	}
36626 98	Scientific electronic equipment, n.e.c.....		
36626 96	Other electronic industrial processing equipment.....	679	}

See footnotes at end of table.



TABLE 6A-3. Selected Electronic and Associated Products-Quantity and Value of Shipments: 1963 and 1958-Continued

Product code	Product	Value of shipments including interplant transfers (\$1,000)				
		1963		1958		
36626 --	Electronic military, industrial, and commercial equipment, n.e.c.—Continued					
36626 00	Electronic military, industrial, and commercial equipment, n.e.c.....	-		3,185		
36627 41	Space satellite-borne communications systems (complete packages).....	28,409		(1)		
36628 12	Missile-borne and space vehicle-borne navigations and guidance systems and equipment.....	961,391		(3)		
Product code	Product	Unit of measure	Value of shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity*	Value (\$1,000)
36710 --	Electron tubes, receiving type, total.....		(X)	276,098	(X)	337,274
	Receiving tubes:					
36710 11	Standard, GT, and GT/G.....	1,000 units...	61,941	58,650	115,138	88,919
36710 12	Miniature.....	..do.....	241,931	176,966	288,167	211,080
36710 13	Subminiature.....	..do.....	8,835	14,238	4,275	12,292
36710 15	Other.....	..do.....	24,863	26,244	(X)	24,983
36720 --	Cathode ray picture tubes, total.....		(X)	243,290	(X)	177,251
	Television picture tubes, including rebuilt tubes:					
36720 13	Black and white.....	Units.....	10,206,893	243,290	9,671,000	177,251
36720 15	Color.....	..do.....				
36730 --	Transmitting, industrial, and special purpose electron tube, total.....		(X)	281,355	(X)	224,899
	Power and special purpose tubes:					
36730 11	High vacuum tubes.....	Units.....	3,154,758	62,610	5,945,000	54,548
36730 22	Gas and vapor tubes.....	..do.....	(NA)	27,238	2,969,000	29,791
36730 27	Klystrons.....	..do.....	(X)	52,392	170,000	27,926
36730 51	Magnetrons.....	Units.....	68,298	38,617	109,000	50,626
36730 91	Forward wave tubes.....	..do.....	19,642	39,204	(X)	62,008
36730 92	Backward wave tubes.....	..do.....	6,925	12,505		
36730 93	Light sensing tubes.....	..do.....	(X)	19,986		
36730 94	Light emitting and special purpose display tubes.....	Units.....	160,379	8,399		
36730 95	Storage tubes.....	..do.....	249,936	14,785	(X)	224,899
36730 96	Miscellaneous special purpose tubes.....	..do.....	(X)	5,619		
36740 --	Semiconductor devices, total.....		(X)	608,265	(X)	236,702
	Transistors:					
36740 61	Silicon.....	Units.....	55,477,604	164,276	3,787,000	38,909
36740 65	Germanium.....	..do.....	221,394,645	157,141	47,185,000	86,806
36740 67	Other (gallium arsenide, silicon carbide, etc.).....	..do.....	(X)	(4)	(X)	(X)
	Diodes, including rectifiers, and related devices:					
	Diodes, general purpose and switching and rectifiers:					
36740 23	Silicon.....	1,000 units...	235,269	140,786	21,906	53,254
36740 43	Germanium.....	..do.....	411,354	36,709	35,434	25,641
36740 13	Selenium and copper oxide.....	..do.....	41,127	16,862	13,010	24,224
36740 91	Other.....	..do.....	(X)	(4)	(X)	7,868
	Light sensitive semiconductor devices (all materials: doped germanium, silicon, indium antimonide, lead sulfide, etc.):					
36740 92	Solar cells.....	..do.....	(X)	7,436		
36740 93	Other.....	..do.....	(X)	3,977		
36740 94	Zener diodes (voltage regulator and voltage reference diodes)	1,000 units...	10,434	25,873	(X)	174,113
36740 95	Other semiconductor devices.....	..do.....	(X)	438,751		
36740 96	Semiconductor parts (chips, headers, cans, etc.).....	..do.....	(X)	16,454	(X)	81,991
36792 --	Capacitors for electronic applications, total.....		(X)	305,911	(X)	174,113
	Aluminum electrolytic (a.c. and d.c.).....	1,000 units...	135,355	59,462	68,140	35,299
36792 31	Tantalum electrolytic.....	..do.....	45,004	56,922	6,004	15,354
36792 41	Ceramic dielectric.....	..do.....	1,411,805	50,263	581,580	26,681
36792 51	Mica dielectric.....	..do.....	166,371	19,994	140,586	14,788
36792 61	Capacitors for automotive ignition systems.....	..do.....	(X)	49,226	(X)	81,991
36792 62	Other.....	..do.....				
36792 12	Paper, metallized paper, film, and dual dielectric.....	..do.....	(X)	70,044	(X)	81,991

See footnotes at end of table.

**TABLE 6A-3. Selected Electronic and Associated Products-Quantity and Value of Shipments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	Value of shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity*	Value (\$1,000)
36793 --	Resistors for electronic applications, total.....	.....	(X)	312,386	(X)	146,788
36793 11	Composition, fixed.....	1,000 units...	2,811,399	72,271	1,617,442	38,733
36793 51	Deposited carbon and metal film, fixed.....	..do.....	207,411	46,908	45,258	11,430
36793 31	Wire-wound, fixed.....	..do.....	146,914	44,743	49,171	21,259
36793 15	Variable nonwire-wound, precision and nonprecision.....	..do.....	168,094	58,034	116,272	31,168
36793 36	Variable wire-wound, precision and nonprecision.....	..do.....	32,862	73,363	(X)	32,326
36793 55	Other (thermistor, thermistor-bolometers, varister, etc.).....	..do.....	55,796	17,067	(X)	11,872
36794 --	Coils, transformers, reactors, and chokes for electronic applications, total.....	.....	(X)	259,325	(X)	201,433
36794 32	Audio transformers.....	.....	(X)	34,465	(X)	35,615
36794 33	Low frequency chokes and filters.....	.....	(X)	19,145		
36794 41	Plate and filament transformers, including auto transformers, except toroidal.....	.....	(X)	50,799	(X)	64,837
36794 62	Pulse transformers: Computer types.....	1,000 units...	1,631	4,669	(X)	11,717
36794 63	Other types.....	.....	(X)	7,041		
36794 12	RF chokes.....	1,000 units...	(X)	10,813	(X)	35,978
36794 13	RF coils and IF transformers.....	..do.....	(X)	44,607		
36794 71	Television transformers and reactors (horizontal output, vertical deflection, focus coils, deflection yokes, etc.).....	.....	(X)	65,886	(X)	30,843
36794 91	Toroidal windings (transformers and reactors), except complete magnetic amplifiers.....	.....	(X)	17,323	(X)	22,443
36794 92	Other (balun coils, permeability tuning devices, etc.).....	.....	(X)	4,577		
36795 --	Electronic components, n.e.c., except phonograph needles and cutting styli, total.....	.....	(X)	1,342,011	(X)	674,084
36795 13	Electron tube parts except glass blanks.....	.....	(X)	40,696	(X)	52,343
36795 31	Phonograph cartridges and pickups.....	1,000 units...	10,166	14,542	(X)	21,253
36795 21	Complex components (two or more components packaged and shipped as a single unit) except filters and other items listed elsewhere: Passive component packages, or "modules" assembled from conventional components (RC networks, tone control packages, interstage coupling packages).....	.....	(X)	5,232	(X)	31,164
36795 22	Active component packages or "modules" assembled from conventional components.....	.....	(X)	78,763		
36795 23	Active or passive component packages or "modules": assembled from components fabricated during the assembly process or from specially designed, discrete, miniature components designed only for use in modules.....	.....	(X)	19,072		
36795 25	Integrated circuitry (semiconductor networks).....	.....	(X)	9,219		
36795 26	Molecular circuitry (functional electronic blocks).....	.....	(X)	9,219	(X)	20,308
36795 32	Switches, mechanical types for electronic circuitry (coaxial, tap, rotary wafer, slide selector and similar types).....	.....	(X)	37,615		
36795 43	Static power supply converters for electronic applications, sold separately: Regulated.....	.....	(X)	49,577	(X)	24,496
36795 44	Unregulated.....	Units.....	26,432	4,393		
36795 45	Variable frequency.....	.....	(X)	1,225		
36795 46	Other (a.c., d.c., converters and inverters, klystron, vibrator, etc.).....	.....	(X)	7,993		
36795 33	Relays for electronic applications: Clapper, rotary, plunger, or solenoid.....	1,000 units...	1,602	516,931	(X)	12,099
36795 34	Other.....	..do.....	(X)	523,763		
36795 35	Home antennae.....	Units.....	12,833,494	34,214	(X)	66,141
36795 37	Auto antennae.....	..do.....	8,978,456	16,388		
36795 52	Printed circuit boards, printed cables, and forms already etched, placed, etc., ready for component insertion.....	.....	(X)	76,844	(X)	15,567
36795 95	Quartz crystals.....	1,000 units...	14,805	44,213	4,138	10,519
36795 59	Recording magnetic tape and wire.....	1,000 ft.....	876,892	112,583	(X)	33,907
36795 11	Transducers, electrical/electronic input or output, n.e.c.: Acoustical: Sonar.....	.....	(X)	6,261	(X)	340,204
36795 12	Ultrasonic, vibration, etc.....	.....	(X)	2,361		
36795 14	Mechanical: Accelerometers.....	Units.....	41,887	10,298		
36795 15	Pressure.....	..do.....	46,248	15,326		
36795 16	Strain gauges and other mechanical.....	.....	(X)	8,922		

See footnotes at end of table.



TABLE 6A-3. **Selected Electronic and Associated Products-Quantity and Value of Shipments: 1963 and 1958-Continued**

Product code	Product	Unit of measure	Value of shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity*	Value (\$1,000)
36795 --	Electronic components, n.e.c., except phonograph needles and cutting styli—Continued					
36795 18	Transducers, electrical/electronic input or output, n.e.c.—Con.					
36795 19	Thermal (pyrometers, thermo-couples, etc. - excluding bi-metallic, mercury, and other mechanical output types).....		(X)	7,757		
	Other: Optical (including any not covered under crystal, etc.), chemical, magnetic, nuclear, etc.....		(X)	8,946		
36795 41	Frequency synthesizers.....		(X)	(6)		
36795 97	Cryogenic cooling devices (cryostats, etc.) for infrared detectors, masers, etc.....		(X)	(6)		
36795 28	Delay lines.....		(X)	8,881		
36795 29	Earphones and headsets, except telephone.....		(X)	14,487		
36795 38	Antennae accessories.....		(X)	32,459		
	Microwave components and devices, except antennae, tubes, and semiconductors:					
	Ferrite (including yttrium garnets) microwave components:					
36795 61	Circulators, all types (permanent magnet).....	Units.....	6,490	2,223		
36795 62	Circulators (electromagnetic), used as switches, modulators, etc.....		(X)	7,855		
36795 63	Isolators.....	Units.....	48,559	5,364		
36795 64	Phase shifters.....		(X)	(7)		
36795 65	Other ferrite microwave components.....		(X)	2,904		
	Microwave devices, other than ferrite and solid state:					
36795 66	Attenuators, dummy loads, high and low power terminations, etc.....		(X)	9,151		
36795 67	Cavities.....		(X)	3,260		
36795 68	Couplers (directional couplers, hybrid junctions, etc.)....	Units.....	42,100	4,760		
36795 69	Duplexers and diplexers, except electric tubes and ferrite devices.....	...do.....	5,438	1,868		
36795 71	Reactive microwave components, n.e.c.....		(X)	6,899		
36795 73	Rotary joints and sector scan joints.....		(X)	1,270		
36795 74	Switches, coaxial and waveguide.....	Units.....	144,812	8,161	(X)	340,204
36795 75	Rigid waveguides and fittings.....		(X)	9,670		
36795 77	Flexible waveguides and fittings.....		(X)	3,398		
36795 78	Other microwave components, except ferrite devices.....		(X)	23,268		
	Microwave subassemblies:					
36795 56	Parametric amplifiers.....		(X)	3,771		
36795 57	Other solid state assemblies (frequency multipliers, harmonic generators, etc.).....		(X)	2,341		
36795 53	Pulse forming networks.....		(X)	1,762		
36795 54	Recording and reproducing heads.....		(X)	9,366		
	Connectors:					
36795 81	RF.....	1,000 of connector equivalents..	40,545	30,632		
36795 82	Cylindrical.....	...do.....	23,892	77,103		
36795 83	Rack and panel.....	...do.....	31,445	45,585		
36795 84	Printed circuit.....	...do.....	29,681	40,629		
36795 85	Fusion sealed.....	...do.....	2,125	9,604		
36795 86	Other.....		(X)	71,027		
	Crystals, filters, and related devices:					
	Filter, except microwave:					
36795 92	LC, RC, etc.....	Units.....	1,001,211	14,316		
36795 91	Infrared, ultra violet, etc., excluding optical lenses (germanium silicon, fused quartz, rock salt, and other)....		(X)	7,126		
36795 93	Mechanical.....		(X)	6,127		
36795 94	Quartz and other piezoelectric filters.....					
36795 96	Other crystals (ADP, Rochelle salt, ruby, garnet, etc.).....		(X)	2,892		
36795 39	Electronic parts, n.e.c., and specialized electronic hardware...		(X)	6,227,718	(X)	46,083
36795 00	Other electronic components and accessories, n.s.k.....		-	-		

Source: Current Industrial Reports Series M36N "Selected Electronics and Associated Products."

Standard Notes: - Represents zero. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Data for 1958 for product class 36621, Commercial, industrial and military electronic communication equipment, includes space satellite-borne communications systems (code 3662741), collected separately in 1963.

<sup>2</sup>Figures on Sonar communications systems and equipment, are included with Other communications equipment, sold separately (3662198) in order to avoid disclosing figures of individual companies.

<sup>3</sup>Data for 1958 for product class 36624, Electronic navigational aids, except missile-borne and space vehicle-borne equipment includes missile-borne and space vehicle-borne navigations and guidance system and equipment (code 3662812), collected separately in 1963.

<sup>4</sup>Figures on "Other transistors" and "Other diodes" are included with "Other semiconductor devices" (3674095) in order to avoid disclosing figures of individual companies.

Footnotes continued on next page.

**TABLE 6A-3. Selected Electronic and Associated Products-Quantity and Value of Shipments: 1963 and 1958--Continued**

Footnotes for table 6A-3--36D--Continued

<sup>5</sup>The following figures were published in Current Industrial Reports Series M36A, Switchgear, Switchboard Apparatus, Relays, and Industrial Controls:

Product	1963 (\$1,000)
Total (Series M36A).....	\$163,733
Switchboard relays.....	39,939
Circuit relays:	
A.c. and d.c. magnetic control...	114,172
Overload relays.....	9,622

The Series M36A values, when added to the comparable values for relays for electronic applications, result in the following total for 1963: \$204,427.

<sup>6</sup>Figures on "Frequency synthesizers" and "Cryogenic cooling devices" are included with "Electronic parts, n.e.c., and specialized electronic hardware" (3679539) in order to avoid disclosing figures of individual companies.

<sup>7</sup>Figures on "Phase shifters" are included with "Circulators (electromagnetic), used as switches, modulators, etc.," to avoid disclosing figures of individual companies.



TABLE 6B. **Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)		Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value			Production	Unit value
365--	Radio and TV receiving equipment.....1963..	163	84		Communication equipment—Continued		
	.....1958..	103	97	3662-	Radio and TV communication equipment.....1963..	(1)	(1)
3651-	Radio and television receiving sets, except communication types.....1963..	161	83		.....1958..	(1)	(1)
	.....1958..	99	97				
36511	Household and automobile radios, and radio-phonograph combinations.....1963..	260	90	367--	Electronic components.....1963..	(1)	(1)
	.....1958..	134	113		.....1958..	(1)	(1)
36512	Household television receivers, including television combinations.....1963..	129	83	3671-	Electron tubes, receiving type.....1963..	91	109
	.....1958..	77	92		.....1958..	104	113
36513	Phonographs and record players.....1963..	181	73	3672-	Cathode ray picture tubes.....1963..	110	106
	.....1958..	141	89		.....1958..	92	91
3652-	Phonograph records, record blanks, and prerecorded tapes.....1963..	221	106	3673-	Transmitting, industrial, and special purpose electron tubes.....1963..	166	111
	.....1958..	178	101		.....1958..	130	110
366--	Communication equipment.....1963..	(1)	(1)	3674-	Solid state semiconductor devices....1963..	(3)	(3)
	.....1958..	(1)	(1)		.....1958..	782	134
3661-	Telephone and telegraph apparatus....1963..	(1)	(1)	3679-	Electronic components and accessories, n.e.c.....1963..	(1)	(1)
	.....1958..	(1)	(1)		.....1958..	(1)	(1)
36612	Other telephone and telegraph (wire) apparatus, equipment and components <sup>2</sup> .....1963..	270	85	36792	Capacitors for electronic applications.....1963..	210	82
	.....1958..	161	87		.....1958..	88	117
				36793	Resistors for electronic applications.....1963..	300	110
					.....1958..	137	113

n.e.c. Not elsewhere classified.

<sup>1</sup>Not shown because comparable quantity data were not obtained for the majority of these products measured in terms of value.

<sup>2</sup>Unit value indexes based on shipments data for telephone instrument sets; production indexes derived by including in addition the values for other telephone apparatus and equipment shipped.

<sup>3</sup>Not shown pending further review of quantity and price information reported in 1963 to determine comparability with data reported for 1958 and 1954.

TABLE 6C. Product Classes—Value Shipped by All Manufacturing Establishments, 1947, 1954, 1958 to 1963

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3651-	Radio and TV receiving sets.....	2,034,333	1,947,943	1,711,514	1,640,594	1,743,644	1,481,575	(NA)	(NA)
36511	Household and automobile radios, and radio- phonograph combinations.....	<sup>2</sup> 520,034	<sup>2</sup> 495,999	<sup>2</sup> 431,956	<sup>2</sup> 414,933	421,722	344,892	253,494	672,880
36512	Household television receivers, including television combinations.....	<sup>2</sup> 1,067,061	<sup>2</sup> 925,132	<sup>2</sup> 812,012	<sup>2</sup> 775,191	815,361	726,595	(NA)	(NA)
36513	Recorders, audio amplifiers, phonographs, tuners, speaker systems, and other audio equipment and accessories.....	431,102	523,715	462,389	444,820	502,713	409,445	(NA)	(NA)
36510	Radio and TV receiving sets, n.s.k.....	16,136	(3,097)	(5,157)	(5,650)	(3,848)	643	(NA)	(NA)
36520	Phonograph records, record blanks, and pre- recorded tapes.....	178,699	186,800	160,660	149,175	141,954	136,165	80,224	105,825
3661-	Telephone; telegraph apparatus.....	1,538,015	1,757,802	1,583,039	1,431,136	1,244,568	1,079,017	755,469	631,919
36611	Telephone switching and switchboard equip- ment.....	491,339	613,140	585,390	514,348	418,115	434,708	245,159	284,932
36612	Other telephone and telegraph (wire) apparatus, equipment, and components.....	1,045,173	1,127,231	992,264	910,240	820,906	637,339	508,744	345,524
36610	Telephone; telegraph apparatus, n.s.k.....	1,503	(17,431)	(5,385)	(6,548)	5,547	6,970	1,566	1,463
3662	Radio and TV communications equipment <sup>r</sup> .....	5,863,071	5,085,729	4,582,836	3,854,109	3,000,412	2,382,330	(X)	(X)
36621	Commercial, industrial, and military elec- tronic communication equipment (except broadcast equipment, space satellite-borne communication equipment (complete package) <sup>r</sup> .....	<sup>3</sup> 1,080,989	<sup>3</sup> 858,833	<sup>3</sup> 811,848	<sup>3</sup> 597,088	<sup>3</sup> 518,553	<sup>3</sup> 416,001	(X)	(X)
36622	Radio and television broadcast equipment, and closed circuit systems <sup>r</sup> .....	<sup>3</sup> 143,397	93,643	72,619	86,969	76,372	53,812	(X)	(X)
36623	Intercommunication equipment (except telephone and telegraph) and electric alarm and signal systems and devices <sup>r</sup> .....	165,801	181,027	163,817	183,873	168,477	129,786	(X)	(X)
36624	Electronic navigational aids (except missile- borne and space vehicle-borne equipment) <sup>r</sup> .....	<sup>3</sup> <sup>4</sup> 1,224,230	<sup>4</sup> 1,693,818	<sup>4</sup> 1,379,912	<sup>4</sup> 887,118	<sup>4</sup> 465,447	<sup>4</sup> 425,542	(X)	(X)
36625	Electronic search and detection apparatus, including radar, infrared and sonar <sup>r</sup> .....	<sup>4</sup> 1,563,909	1,698,680	1,562,074	1,507,485	1,391,719	1,016,440	(X)	(X)
36626	Electronic military, industrial and comm- ercial equipment, n.e.c. <sup>r</sup> .....	<sup>4</sup> 662,984	559,728	592,566	590,576	379,844	340,749	(X)	(X)
36627	Space satellite-borne communications sys- tems (complete package) <sup>r</sup> .....	<sup>13</sup> <sup>4</sup> 28,409	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	(X)	(X)
36628	Missile-borne and space vehicle-borne navi- gation and guidance systems and equipment <sup>r</sup> .....	<sup>3</sup> <sup>4</sup> 961,391	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	(X)	(X)
36620	Radio, TV communications equipment, n.s.k. <sup>r</sup> ..	31,961	-	-	-	-	-	-	-
36710	Receiving type electron tubes, except, cathode ray.....	<sup>4</sup> 276,098	277,886	263,635	307,400	335,841	337,274	288,821	86,795
36720	Cathode ray picture tubes, including rebuilt tubes.....	<sup>4</sup> 243,290	222,318	229,451	212,930	211,949	177,251	212,968	7,137
36730	Transmitting industrial, and special purpose electron tubes (except X-ray).....	<sup>4</sup> 281,355	337,747	297,413	256,374	257,699	224,899	156,111	27,135
36740	Solid state semiconductor devices.....	<sup>4</sup> 608,265	567,645	552,681	525,798	389,795	236,702	22,602	(NA)
3679-	Electronic components, n.e.c.....	2,318,402	2,190,295	1,795,231	1,637,605	1,487,904	1,297,570	915,443	(NA)
36792	Capacitors for electronic applications.....	<sup>4</sup> 305,911	355,958	294,531	271,005	240,506	183,562	178,157	75,190
36793	Resistors for electronic applications.....	<sup>4</sup> 312,386	275,382	235,691	211,786	205,419	146,788	94,785	21,492
36794	Coils, transformers, reactors, and chokes for electronic applications.....	<sup>4</sup> 259,325	227,852	212,268	215,266	222,962	191,984	180,223	63,461
36795	Other electronic components and accessories, n.e.c., including parts for electronic tubes (except glass blanks).....	<sup>4</sup> 1,342,011	1,201,103	929,705	825,709	720,867	685,015	440,521	(NA)
36790	Electronic components, n.e.c., n.s.k.....	98,769	(130,000)	(123,036)	(113,839)	98,150	90,221	21,757	42,595

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. Revised n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Source: Current Industrial Reports Series M36M, Home-Type Radio Receivers and Television Sets, Automobile Radios, Phonographs and Record Players.

<sup>3</sup>For 1958-1962 product classes 36627 and 36628 were part of product classes 36621 and 36624, respectively. Refer to Current Industrial Reports Series M36N for 1961 and 1962 comparable data on these two new product classes. Separate data prior to 1961 are unavailable.

<sup>4</sup>Source: Current Industrial Reports Series M36N, Selected Electronic and Associated Products.



**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>			1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
HOUSEHOLD AND AUTOMOBILE RADIOS, AND RADIO-PHONOGRAPH COMBINATIONS (36511)			OTHER TELEPHONE AND TELEGRAPH (WIRE) APPARATUS, EQUIPMENT, AND COMPONENTS (36612)—Continued			INTERCOMMUNICATION EQUIPMENT (EXCEPT TELEPHONE AND TELEGRAPH) AND ELECTRIC ALARM AND SIGNAL SYSTEMS AND DEVICES (36623)		
United States, total....	531,290		East North Central.....	413,039	278,539	United States, total...	165,801	129,786
New England.....	16,051		Illinois.....	252,823	166,004	New England.....	23,888	( <sup>2</sup> )
Middle Atlantic.....	100,503		West North Central.....	58,898	6,590	Massachusetts.....	10,324	7,144
New York.....	71,292		All other divisions.....	212,714	84,784	Connecticut.....	13,564	11,045
North Central.....	324,066		California.....	33,387	20,397	Middle Atlantic.....	92,216	( <sup>2</sup> )
Indiana.....	153,882		COMMERCIAL, INDUSTRIAL, AND MILITARY ELECTRONIC COMMUNICATION EQUIPMENT (EXCEPT BROADCAST EQUIPMENT AND SPACE SATELLITE-BORNE COMMUNICATION EQUIPMENT) (36621)			New York.....	53,718	42,504
Illinois.....	151,564		United States, total...	1,080,989	416,001	East North Central.....	24,848	31,862
South.....	79,579		New England.....	87,816	19,001	Ohio.....	12,004	4,154
West.....	11,091		Massachusetts.....	65,715	( <sup>2</sup> )	Illinois.....	11,691	21,425
HOUSEHOLD TELEVISION RECEIVERS, INCLUDING TELEVISION COMBINATIONS (36512)	1963 <sup>1</sup>	1958	Connecticut.....	16,623	3,252	West North Central.....	8,245	3,406
United States, total....	1,092,310	726,594	Middle Atlantic.....	254,594	179,266	Missouri.....	1,173	1,290
Northeast.....	270,765	( <sup>2</sup> )	New York.....	120,408	76,417	South.....	7,977	4,142
North Central.....	706,426	( <sup>2</sup> )	New Jersey.....	78,987	83,169	Texas.....	2,282	( <sup>2</sup> )
South and West.....	115,119	( <sup>2</sup> )	Pennsylvania.....	55,199	19,680	West.....	8,627	2,457
RECORDERS, AUDIO AMPLIFIERS, PHONOGRAPHS, TUNERS, SPEAKER SYSTEMS, AND OTHER AUDIO EQUIPMENT AND ACCESSORIES (36513)	1963 <sup>1</sup>		East North Central.....	316,674	( <sup>2</sup> )	California.....	8,627	2,279
United States, total....	431,102		Ohio.....	126,537	8,887	ELECTRONIC NAVIGATIONAL AIDS (EXCEPT MISSILE BORNE AND SPACE VEHICLE BASIN EQUIPMENT) (36624)		
New England.....	29,849		Illinois.....	154,933	63,869	United States, total...	1,246,261	425,542
Massachusetts.....	26,856		West North Central.....	123,605	( <sup>2</sup> )	New England.....	94,844	( <sup>2</sup> )
Middle Atlantic.....	95,248		South.....	215,607	73,089	Massachusetts.....	87,527	7,171
New York.....	64,004		Maryland.....	50,750	17,763	Middle Atlantic.....	327,143	( <sup>2</sup> )
New Jersey.....	18,158		North Carolina.....	12,000	26,545	New York.....	251,950	( <sup>2</sup> )
Pennsylvania.....	13,086		Florida.....	15,902	( <sup>2</sup> )	North Central.....	139,032	61,467
East North Central.....	229,901		Mountain.....	7,220	22,215	Illinois.....	6,605	( <sup>2</sup> )
Indiana.....	28,412		Pacific.....	75,473	21,174	South.....	147,126	( <sup>2</sup> )
Illinois.....	157,143		California.....	74,911		Florida.....	17,742	( <sup>2</sup> )
Michigan.....	33,642		RADIO AND TELEVISION BROADCAST EQUIPMENT, AND CLOSED CIRCUIT SYSTEMS (36622)			Mountain.....	12,113	( <sup>2</sup> )
West North Central.....	19,953		United States, total...	150,931	53,812	Arizona.....	11,959	( <sup>2</sup> )
South Atlantic.....	1,920		New England.....	6,047	1,715	Pacific.....	526,003	( <sup>2</sup> )
East South Central.....	17,284		Middle Atlantic.....	70,987	28,214	California.....	526,003	( <sup>2</sup> )
West South Central.....	12,262		New York.....	19,757	( <sup>2</sup> )	ELECTRONIC SEARCH AND DETECTION APPARATUS, INCLUDING RADAR, INFRARED AND SONAR (36625)		
Texas.....	3,226		New Jersey.....	42,705	18,253	United States, total...	1,644,863	1,016,440
West.....	24,685		Pennsylvania.....	8,525	13,253	New England.....	266,263	179,595
TELEPHONE SWITCHING AND SWITCHBOARD EQUIPMENT (36611)	1963 <sup>1</sup>	1958	East North Central.....	26,249	10,537	Massachusetts.....	208,742	168,943
United States, total....	491,339	434,708	Illinois.....	9,555	4,371	Connecticut.....	21,272	( <sup>2</sup> )
Northeast and North Central.....	449,729	( <sup>2</sup> )	West North Central.....	4,919	3,282	Middle Atlantic.....	571,113	368,720
South and West.....	41,610	( <sup>2</sup> )	South Atlantic.....	6,316	2,226	New York.....	440,975	228,297
OTHER TELEPHONE AND TELEGRAPH (WIRE) APPARATUS, EQUIPMENT, AND COMPONENTS (36612)			Maryland.....	6,198	( <sup>2</sup> )	New Jersey.....	107,905	( <sup>2</sup> )
United States, total....	1,045,173	637,339	West South Central.....	2,726	( <sup>2</sup> )	Pennsylvania.....	22,293	( <sup>2</sup> )
Northeast.....	360,522	267,426	Mountain.....	1,247	( <sup>2</sup> )	North Central.....	175,917	74,214
Massachusetts.....	184,842	114,089	Pacific.....	32,440	( <sup>2</sup> )	Illinois.....	28,186	25,483
New York.....	47,945	12,969				South.....	317,303	( <sup>2</sup> )
New Jersey.....	120,952	139,578				Texas.....	44,597	( <sup>2</sup> )
						Mountain.....	32,891	( <sup>2</sup> )
						Pacific.....	281,376	( <sup>2</sup> )

See footnotes at end of table.

TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
ELECTRONIC MILITARY, INDUSTRIAL, AND COMMERCIAL EQUIPMENT, N.E.C. (36626)			CAPACITORS FOR ELECTRONIC APPLICATIONS (36792)			COILS, TRANSFORMERS, REACTORS, AND CHOKES FOR ELECTRONIC APPLICATIONS (36794)—Continued		
United States, total....	723,925	340,749	United States, total....	318,831	183,562	East North Central.....	114,364	78,596
New England.....	73,854	(2)	New England.....	90,176	56,040	Ohio.....	12,463	18,180
Massachusetts.....	54,826	10,026	Massachusetts.....	39,539	35,791	Indiana.....	34,194	9,597
Connecticut.....	10,557	(2)	Connecticut.....	25,752	10,446	Illinois.....	54,272	43,027
Middle Atlantic.....	177,700	(2)	Middle Atlantic.....	46,275	33,970	Michigan.....	8,427	5,151
New York.....	112,757	(2)	New York.....	17,822	11,428	Wisconsin.....	5,008	2,641
New Jersey.....	46,264	21,235	New Jersey.....	11,884	12,590	West North Central.....	15,961	10,762
Pennsylvania.....	18,679	11,860	Pennsylvania.....	16,569	9,952	Minnesota.....	4,373	(2)
East North Central.....	121,366	(2)	North Central.....	67,162	42,207	Missouri.....	2,634	4,408
Ohio.....	12,710	3,173	Ohio.....	8,571	(2)	South Atlantic.....	8,562	4,045
Illinois.....	65,178	(2)	Illinois.....	26,620	23,971	Florida.....	3,970	(2)
Michigan.....	3,538	(2)	Wisconsin.....	7,074	4,383	East South Central.....	3,255	1,103
West North Central.....	6,195	(2)	South Atlantic.....	77,082	(2)	West South Central.....	2,665	1,404
Minnesota.....	2,100	(2)	Virginia.....	11,102	(2)	Texas.....	2,665	1,404
Missouri.....	3,512	(2)	North Carolina.....	29,117	14,053	West.....	30,386	20,531
South.....	129,208	(2)	South Carolina.....	35,044	8,900			
Maryland.....	25,563	8,369	East South Central.....	13,514	(2)	OTHER ELECTRONICS COMPONENTS AND ACCESSORIES, N.E.C., INCLUDING PARTS FOR ELECTRON TUBES (EXCEPT GLASS BLANKS) (36795)		
Virginia.....	14,062	(2)	West South Central.....	3,020	(2)	United States, total...	1,496,668	685,015
Florida.....	55,010	29,903	Texas.....	3,020	(2)	New England.....	212,492	86,868
Oklahoma.....	14,549	(2)	West.....	21,602	(2)	Massachusetts.....	107,706	32,082
Texas.....	13,920	(2)				Rhode Island.....	9,792	(2)
Mountain.....	14,882	(2)	RESISTORS FOR ELECTRONIC APPLICATIONS (36793)			Connecticut.....	74,867	44,370
Pacific.....	200,720	(2)	United States, total...	312,583	146,788	Middle Atlantic.....	489,714	222,903
California.....	196,992	32,015	New England.....	22,199	14,790	New York.....	235,022	87,356
MISSILE-BORNE AND SPACE VEHICLE-BORNE NAVIGATION AND GUIDANCE SYSTEMS AND EQUIPMENT (36628)			New Hampshire.....	12,738	(2)	New Jersey.....	137,701	72,644
United States, total....		978,597	Middle Atlantic.....	101,974	48,603	Pennsylvania.....	116,991	62,903
New England.....		70,721	New York.....	34,120	12,712	East North Central.....	307,297	212,737
Massachusetts.....		63,653	New Jersey.....	7,676	7,960	Ohio.....	54,478	44,644
Middle Atlantic.....		250,461	Pennsylvania.....	60,178	27,931	Indiana.....	38,984	16,868
North Central.....		105,018	East North Central.....	101,884	28,322	Illinois.....	149,040	112,850
South.....		85,968	Indiana.....	28,322	62,475	Michigan.....	48,220	31,361
Mountain.....		1,614	West North Central.....	36,455	19,119	Wisconsin.....	16,575	7,004
Pacific.....		464,815	Iowa.....	19,119	62,475	West North Central.....	102,249	46,085
TRANSMITTING, INDUSTRIAL, AND SPECIAL PURPOSE ELECTRON TUBES - MC-36M (36730)			South.....	16,533	(2)	Minnesota.....	74,821	31,433
United States, total....	286,663	224,899	North Carolina.....	7,334	(2)	Iowa.....	8,146	7,212
New England.....	49,244	64,917	West.....	33,538	(2)	Missouri.....	10,874	5,226
Middle Atlantic.....	111,889	100,451				Nebraska.....	2,860	(2)
New York.....	38,203	20,120	COILS, TRANSFORMERS, REACTORS, AND CHOKES FOR ELECTRONIC APPLICATIONS (36794)			Kansas.....	5,548	(2)
New Jersey.....	32,566	40,592	United States, total...	274,443	191,984	South Atlantic.....	83,980	20,611
Pennsylvania.....	41,120	39,739	New England.....	32,076	22,620	Maryland.....	13,908	5,347
North Central.....	11,766	(2)	Massachusetts.....	25,999	19,010	North Carolina.....	11,487	9,726
Illinois.....	7,047	(2)	Middle Atlantic.....	67,174	52,923	East South Central.....	13,506	(2)
South.....	17,775	(2)	New York.....	35,712	33,579	Tennessee.....	3,156	2,018
West.....	95,989	(2)	New Jersey.....	14,013	10,416	West South Central.....	18,061	(2)
			Pennsylvania.....	17,449	8,928	Texas.....	14,037	2,941
						Mountain.....	16,516	1,857
						Colorado.....	2,616	(2)
						Arizona.....	7,566	(2)
						Pacific.....	252,853	83,929
						California.....	249,962	82,511

Footnotes on next page.



**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued**

Footnotes for table 6D-36D

(Z) Less than \$1 million reported. n.e.c. Not elsewhere classified.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 36511, Massachusetts, Connecticut, New Jersey, Pennsylvania, Ohio, Iowa, Maryland, Kentucky, Tennessee, Arkansas, Texas, California; 36512, Massachusetts, New York, New Jersey, Pennsylvania, Indiana, Illinois, Minnesota, Tennessee, Arkansas, Texas, California; 36513, Maine, Connecticut, Ohio, Wisconsin, Minnesota, Iowa, North Carolina, Kentucky, Tennessee, Arkansas, Oklahoma, California; 36611, New York, New Jersey, Ohio, Illinois, Nebraska, Virginia, Tennessee, Oklahoma; 36612, Connecticut, Pennsylvania, Ohio, Indiana, Wisconsin, Minnesota, Missouri, Nebraska, Maryland, North Carolina, Tennessee, Mississippi, Arkansas, Oklahoma, Oregon; 36621, New Hampshire, Indiana, Michigan, Minnesota, Iowa, Missouri, Kansas, Virginia, South Carolina, Oklahoma, Texas, New Mexico, Arizona, Nevada; 36622, Massachusetts, Indiana, Michigan, Iowa, Texas, California; 36623, New Jersey, Pennsylvania, Minnesota, Iowa, Virginia, Kentucky; 36624, Connecticut, New Jersey, Pennsylvania, Ohio, Indiana, Minnesota, Iowa, Missouri, Maryland, Virginia, North Carolina, Tennessee, Alabama, Texas; 36625, New Hampshire, Rhode Island, Ohio, Indiana, Michigan, Wisconsin, Maryland, Virginia, North Carolina, South Carolina, Florida, Tennessee, Oklahoma, Arizona, Utah, Washington, California; 36626, New Hampshire, Indiana, Wisconsin, North Carolina, Arkansas, Idaho, New Mexico, Arizona, Washington; 36628, Connecticut, New York, New Jersey, Pennsylvania, Ohio, Michigan, Wisconsin, Minnesota, Iowa, Maryland, North Carolina, Florida, Tennessee, Alabama, Texas, Arizona, Washington, California; 36730, Massachusetts, Connecticut, Ohio, Missouri, Virginia, Florida, Kentucky, Texas, Utah, California; 36792, New Hampshire, Vermont, Rhode Island, Indiana, Minnesota, Nebraska, Florida, Tennessee, Alabama, Mississippi, California; 36793, Massachusetts, Rhode Island, Ohio, Illinois, Michigan, Wisconsin, Minnesota, Missouri, Nebraska, Kansas, Maryland, Florida, Texas, California; 36794, Connecticut, Iowa, West Virginia, South Carolina, Tennessee, California; 36795, Maine, New Hampshire, Vermont, Virginia, West Virginia, Georgia, Florida, Kentucky, Alabama, Oklahoma, New Mexico, Utah, Washington.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3651.—RADIO AND TV RECEIVING SETS			
	Materials, parts, containers, and supplies, total.....	.....	(X)	1,335,000	(X)	894,137
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons....	2,500	485	5,572	1,190
331012	Sheet and strip.....	...do.....	49,670	10,155	53,445	11,747
331019	All other carbon steel mill shapes and forms.....	...do.....	7,801	1,531	3,834	1,354
331020	Alloy steel (except stainless).....	...do.....	2,202	703	2,467	1,380
331031	Stainless steel.....	...do.....	232	403	61	73
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction only).....	1,000 lbs....	5,221	1,532	4,438	1,872
335790	Insulated wire and cable.....	1,000 lbs. (copper content).....				
			18,632	11,527	4,802	5,441
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs....	625	543	758	416
335123	Plate, sheet, and strip, including military cups and discs.....	...do.....				
335127	Pipe and tube.....	...do.....				
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	...do.....	921	605	2,673	1,671
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	...do.....	1,578	1,043	1,154	487
335209	All other aluminum mill shapes and forms (wire rolled rod and bar, powder, welded tubing, etc.).....	...do.....				
336100	Aluminum and aluminum-base alloy castings (rough and semifinished).	...do.....	765	651	(NA)	1,229
	Fractional horsepower electric motors (under 1 hp.):					
362110	Timing motors, synchronous and subsynchronous.....	Thousands....	1,157	2,892	824	4,862
362115	Other fractional horsepower electric motors (excluding timing motors).....	...do.....	1,618	6,352	871	2,862
367010	Electron tubes, except X-ray.....	...do.....	200,089	274,324	103,736	135,053
367401	Solid state semiconductors.....	...do.....	86,029	24,340	17,255	15,514
339913	Ferrites (powders and paste).....	...do.....	(X)	1,135	(X)	1,298
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	859,627	(X)	578,553
976000	Materials, parts, containers and supplies, n.s.k.....	.....	(X)	1,137,152	(X)	1,129,135
			INDUSTRY 3661.—TELEPHONE; TELEGRAPH APPARATUS			
	Materials, parts, containers, and supplies, total.....	.....	(X)	655,050	(X)	479,565
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons....	19,489	3,755	14,441	3,076
331012	Sheet and strip.....	...do.....	85,584	12,085	43,306	8,055
331019	All other carbon steel mill shapes and forms.....	...do.....	7,221	1,727	10,529	2,798
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	...do.....	10,061	8,428	1,170	1,259
331029	All other alloy steel mill shapes and forms.....	...do.....				
331031	Stainless steel.....	...do.....			1,251	1,609
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction only).....	1,000 lbs....	7,195	7,543	5,267	4,054
335790	Insulated wire and cable.....	1,000 lbs. (copper content).....				
			12,725	25,336	23,717	23,633
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs....	8,473	5,195	25,164	10,534
335123	Plate, sheet, and strip, including military cups and discs.....	...do.....	22,587	11,918		
335127	Pipe and tube.....	...do.....	1,477	1,129		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	...do.....	4,994	2,828	4,350	2,088
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	...do.....	1,149	630	3,287	1,856
335209	All other aluminum mill shapes and forms (wire rolled rod and bar, powder, welded tubing, etc.).....	...do.....	4,198	1,666		
336100	Aluminum and aluminum-base alloy castings (rough and semifinished).	...do.....	5,122	3,178	800	921
367010	Electron tubes, except X-ray.....	Thousands....	1,857	11,645	6,136	11,830
367408	Solid state semiconductors.....	...do.....	96,388	48,085	(NA)	3,430
282130	Thermoplastic resins (cellulosics, polyethylenes, styrenes, etc.)..	1,000 lbs....	18,029	8,179	(NA)	(NA)
282140	Thermosetting resins (melamines, phenolics, polyesters, ureas, etc.	...do.....	7,553	1,771	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	490,014	(X)	404,422
976000	Materials, parts, containers, and supplies, n.s.k.....	.....	(X)	9,938	(X)	-

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958			
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)		
			INDUSTRY 3662.—RADIO, TV COMMUNICATION EQUIPMENT					
	Materials, parts, containers and supplies, total.....	.....	(X)	2,468,669	(X)	r1,076,231		
	Mill shapes and forms (except castings):							
	Carbon steel:							
331012	Sheet and strip.....	Short tons...	15,986	3,208	13,432	2,315		
331011	Bars and bar shapes.....	..do.....	} (NA)	10,319	10,744	1,721		
331017	Wire and wire products.....	..do.....			(NA)	636		
331015	Structural shapes.....	..do.....			} 15,077	3,329		
331019	All other carbon steel mill shapes and forms.....	..do.....						
	Alloy steel (except stainless):							
331021	Bars and bar shapes.....	..do.....	1,362	588	1,176	309		
331029	All other alloy steel mill shapes and forms.....	..do.....	2,565	1,153	1,897	1,075		
331031	Stainless steel.....	..do.....	1,984	3,174	1,784	2,572		
	Copper and copper-base alloy:							
335728	Bare wire (for electrical conduction only).....	1,000 lbs....	4,371	3,387	951	430		
335790	Insulated wire and cable.....	1,000 lbs. (copper content)....	} 24,238	22,307	9,524	9,755		
335102	Rod, bar and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs....					2,698	1,721
335123	Plate, sheet, and strip (including military cups and discs)....	..do.....					1,401	1,258
335127	Pipe and tube.....	..do.....					1,234	926
	Aluminum and aluminum-base alloy:							
335202	Sheet, plate and foil.....	..do.....	13,437	8,804	8,562	5,179		
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	..do.....	8,933	5,978	} 5,966	3,814		
335209	All other aluminum mill shapes and forms.....	..do.....	3,955	2,592				
335606	Nickel and nickel-base alloy mill shapes and forms.....	..do.....	348	732	146	311		
	Castings (rough and semifinished):							
332300	Steel.....	Short tons...	14,931	8,069	5,445	2,452		
336100	Aluminum and aluminum-base alloy.....	1,000 lbs....	11,248	13,892	4,103	4,617		
336200	Copper and copper-base alloy.....	..do.....	1,066	1,243	2,453	2,058		
	Fractional electric horsepower motors (under 1 hp.):							
362110	Timing motors, synchronous and subsynchronous.....	Thousands....	191	9,176	(NA)	r9,022		
362115	Other fractional horsepower electric motors (excluding timing motors).....	..do.....	414	11,690	176	10,184		
367010	Electron tubes, except X-ray.....	..do.....	55,857	66,496	22,723	56,246		
367408	Solid state semiconductors.....	..do.....	123,780	104,248	6,582	18,248		
281995	Silicon, hyperpure.....	Kilograms....	695	1,431	(NA)	(NA)		
335605	Germanium.....	Pounds.....	870	223	(NA)	(NA)		
260091	Paper and paperboard containers.....	..do.....	(X)	6,114	(X)	(NA)		
339913	Ferrites (powder and paste).....	..do.....	(X)	2,123	(X)	212		
	Glass and glass products:							
322921	Tube blanks.....	Thousands....	(D)	(D)	(NA)	(NA)		
320311	Other than tube blanks.....	..do.....	(X)	1,370	(NA)	(NA)		
367951	Fabricated electron tube parts, except blanks.....	..do.....	(X)	8,762	(NA)	(NA)		
282130	Thermoplastic resins (cellulosics, polyethylenes, styrenes, etc.)..	1,000 lbs....	2,498	380	(NA)	(NA)		
282140	Thermosetting resins (melamines, phenolics, polyesters, ureas, etc.)	..do.....	(D)	(D)	(NA)	(NA)		
970099	All other materials and components, parts, containers and supplies consumed.....	..do.....	(X)	2,032,543	(X)	r730,961		
976000	Materials, parts, containers and supplies, n.s.k.....	..do.....	(X)	134,762	(X)	208,996		
			INDUSTRY 3671.—ELECTRON TUBES, RECEIVING TYPE					
	Materials, parts, containers, and supplies, total.....	.....	(X)	60,103	(X)	73,442		
	Mill shapes and forms (except castings):							
	Carbon steel:							
331011	Bars and bar shapes.....	Short tons...	(D)	(D)	(NA)	(NA)		
331012	Sheet and strip.....	..do.....	(D)	(D)	(NA)	(NA)		
331015	Structural shapes.....	..do.....	-	-	(NA)	(NA)		
331017	Wire and wire products.....	..do.....	(D)	(D)	(NA)	(NA)		
331019	All other carbon mill shapes and forms.....	..do.....	-	-	(NA)	(NA)		

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
	Mill shapes and forms (except castings):—Continued		INDUSTRY 3671.—ELECTRON TUBES, RECEIVING TYPE—Con.			
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	Short tons....	-	-	(NA)	(NA)
331029	All other alloy steel mill shapes and forms.....	...do.....	(D)	(D)	(NA)	(NA)
331031	Stainless steel.....	...do.....	(D)	(D)	(NA)	(NA)
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction only).....	1,000 lbs.....	(D)	(D)	(NA)	(NA)
335790	Insulated wire and cable.....	1,000 lbs. (copper content)....	(D)	(D)	(NA)	(NA)
335102	Rod, bar and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	(D)	(D)	(NA)	(NA)
335123	Plate, sheet, and strip (including military cups and discs)...	...do.....	(D)	(D)	(NA)	(NA)
335127	Pipe and tube.....	.....	-	-	(NA)	(NA)
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	1,000 lbs.....	(D)	(D)	(NA)	(NA)
335205	Extruded shapes (including extruded rod, bar, pipe, tube,etc.)	...do.....	(D)	(D)	-	-
335209	All other aluminum mill shapes and forms.....	.....	-	-	(NA)	(NA)
	Castings (rough and semifinished):					
332300	Steel.....	Short tons....	-	-	(NA)	(NA)
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	(D)	(D)	-	-
336200	Copper and copper-base alloy.....	.....	-	-	(NA)	(NA)
	Fractional electric horsepower motors (under 1 hp.):					
362110	Timing motors synchronous and subsynchronous.....	Number.....	(D)	(D)	(NA)	(NA)
362115	Other fractional horsepower electric motors (excluding timing motors).....	...do.....	(D)	(D)	(NA)	(NA)
367010	Electron tubes, except X-ray.....	Thousands....	(D)	(D)	(NA)	(NA)
367408	Solid state semiconductors.....	...do.....	(D)	(D)	(NA)	(NA)
260091	Paper and paperboard containers.....	(X)		1,163	(X)	1,617
329905	Mica.....	Pounds.....	468,088	2,553	(NA)	4,776
335606	Nickel and nickel-base alloy mills shapes and forms.....	1,000 lbs.....	1,391	3,044	788	2,335
335603	Molybdenum, rolled, drawn, or extruded.....	Pounds.....	30,485	1,968	(NA)	1,263
335733	Tungsten wire.....	(X)		3,468	(X)	2,993
322921	Glass tube blanks.....	Thousands....	331,401	3,339	(NA)	(NA)
320311	Glass products other than tube blanks.....	(X)		1,652	(X)	(NA)
367951	Fabricated electron tube parts, except blanks.....	.....	(X)	26,209	(X)	(NA)
970099	All other materials and components, parts, containers and supplies consumed.....	.....	(X)	15,574	(X)	56,185
976000	Materials, parts, containers and supplies, n.s.k.....	.....	(X)	1,133	(X)	4,273
			INDUSTRY 3672.—CATHODE RAY PICTURE TUBES			
	Materials, parts, containers and supplies, total.....	.....	(X)	138,318	(X)	86,200
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons....	(D)	(D)	(NA)	(NA)
331012	Sheet and strip.....	...do.....	(D)	(D)	(NA)	(NA)
331015	Structural shapes.....	...do.....	(D)	(D)	(NA)	(NA)
331021	Alloy steel (except stainless)	Short tons....	(D)	(D)	(NA)	(NA)
331031	Stainless steel.....	...do.....	(D)	(D)	(NA)	(NA)
	Copper and copper-base alloy:					
335123	Plate, sheet, and strip (including military cups and discs)...	1,000 lbs.....	(D)	(D)	(NA)	(NA)
335127	Pipe and tube.....	...do.....	(D)	(D)	(NA)	(NA)
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	...do.....	(D)	(D)	(NA)	(NA)
335205	Extruded shapes (including extruded rod, bar, pipe, tube,etc.)	...do.....	(D)	(D)	(NA)	(NA)
335209	All other aluminum mill shapes and forms.....	...do.....	(D)	(D)	(NA)	(NA)
	Castings (rough and semifinished)					
336100	Aluminum and aluminum-base alloy.....	...do.....	(D)	(D)	(NA)	(NA)
336200	Copper and copper-base alloy.....	...do.....	(D)	(D)	(NA)	(NA)
362115	Fractional electric horsepower motors (under 1 hp.):					
	Other fractional horsepower electric motors (excluding timing motors).....	Number.....	(D)	(D)	(NA)	(NA)
367010	Electron tubes, except X-ray.....	Thousands....	105,303	793	(NA)	(NA)
260091	Paper and paperboard containers.....	(X)		(D)	(X)	2,955
335733	Tungsten wire.....	1,000 lbs.....	(D)	(D)	(X)	124
339913	Ferrites (powder and paste).....	(X)		(D)	(NA)	(NA)

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3672.—CATHODE RAY PICTURE TUBES—Continued			
322921	Glass and glass products:					
320311	Tube blanks.....	Thousands.....	49,217 (X)	61,777 (D)	(NA)	(NA)
	Other than tube blanks.....	.....			(NA)	(NA)
367951	Fabricated electron tube parts, except blanks.....	.....	(X)	7,160	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	65,178	(X)	82,348
976000	Materials, parts, containers, and supplies, n.s.k.....	.....	(X)	3,410	(X)	773
			INDUSTRY 3673.—ELECTRON TUBES, TRANSMITTING			
	Materials, parts, containers and supplies, total.....	.....	(X)	73,946	(X)	73,346
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	105	263	(NA)	(NA)
331012	Sheet and strip.....	..do.....			(NA)	(NA)
331015	Structural shapes.....	..do.....			(NA)	(NA)
331017	Wire and wire products.....	..do.....			(NA)	(NA)
331019	All other carbon steel mill shapes and forms.....	..do.....			(NA)	(NA)
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	22	116	(NA)	(NA)
331029	All other alloy steel mill shapes and forms.....	..do.....			(NA)	(NA)
331031	Stainless steel.....	..do.....	146	552	(NA)	(NA)
	Copper and copper base alloy:					
335728	Bare wire (for electrical conduction only).....	1,000 lbs.....	97	131	(NA)	(NA)
335790	Insulated wire and cable.....	1,000 lbs. (copper content).....				
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	656	735	(NA)	(NA)
335123	Plate, sheet, and strip (including military cups and discs)....	..do.....	800	751	(NA)	(NA)
335127	Pipe and tube.....	..do.....	406	410	(NA)	(NA)
	Aluminum base and aluminum base alloy:					
335202	Sheet, plate, and foil.....	..do.....	290	384	(NA)	(NA)
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc..	..do.....	139	219	(NA)	(NA)
335209	All other aluminum mill shapes and forms.....	..do.....			120	107
	Castings (rough and semifinished):					
332300	Steel.....	Short tons.....	50	61	(NA)	(NA)
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	1,145	144	(NA)	(NA)
336200	Copper and copper-base alloy.....	..do.....	(D)	(D)	(NA)	(NA)
	Fractional electric horsepower motors (under 1 hp.):					
362110	Timing motors, synchronous and subsynchronous.....	Number.....	(D)	(D)	(NA)	(NA)
362115	Other fractional horsepower electric motors (excluding timing motors).....	..do.....	(D)	(D)	(NA)	(NA)
367010	Electron tubes, except X-ray.....	Thousands.....	9,110	2,512	(NA)	(NA)
367408	Solid state semiconductors.....	..do.....	1,960	509	(NA)	(NA)
335605	Germanium.....	Kilograms.....	(D)	(D)	(NA)	(NA)
260091	Paper and paperboard containers.....	.....	(X)	552	(X)	815
329905	Mica.....	Pounds.....	(D)	(D)	(X)	163
335606	Nickel and nickel-base alloy shapes and forms.....	1,000 lbs.....	307	824	849	1,660
335602	Tantalum mill products.....	Pounds.....	3,403	158	(X)	121
335603	Molybdenum, rolled, drawn or extruded.....	..do.....	36,261	849	(X)	753
335733	Tungsten wire.....	1,000 meters.....	1,206	251	(X)	668
367951	Fabricated electron tube parts except blanks.....	.....	(X)	25,787	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	36,467	(X)	65,422
976000	Materials, parts, containers, and supplies, n.s.k.....	.....	(X)	2,271	(X)	3,637
			INDUSTRY 3674.—SEMICONDUCTORS			
	Materials, parts, containers and supplies, total.....	.....	(X)	183,301	(2)	(2)
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	1,529	723	(2)	(2)
331012	Sheet and strip.....	..do.....				
331015	Structural shapes.....	..do.....				
331017	Wire and wire products.....	..do.....				
331019	All other carbon steel mill shapes and forms.....	..do.....				
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	1,109	3,310	(2)	(2)
331029	All other alloy steel mill shapes and forms.....	..do.....				
331031	Stainless steel.....	..do.....				

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
	Mill shapes and forms (except castings)— Continued		INDUSTRY 3674.—SEMICONDUCTORS—Continued			
335728	Copper and copper-base alloy:					
335790	Bare wire (for electrical conduction only).....	1,000 lbs.....	594	547	(2)	(2)
	Insulated wire and cable.....	1,000 lbs. (copper content).....	87	327	(2)	(2)
335102	Rod, bar and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	569	783	(2)	(2)
335123	Plate, sheet, and strip (including military cups and discs)....	do.....				
335127	Pipe and tube.....	do.....				
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	do.....	280	328	(2)	(2)
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)..	do.....				
335209	All other aluminum mill shapes and forms.....	do.....				
332300	Castings (rough and semifinished):					
	Steel.....	Short tons.....	(D)	(D)	(2)	(2)
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	(D)	(D)	(2)	(2)
336200	Copper and copper-base alloy.....	do.....	(D)	(D)	(2)	(2)
	Fractional electric horsepower motors (under 1 hp.):					
362110	Timing motors synchronous and subsynchronous.....	Number.....	(D)	(D)	(2)	(2)
362115	Other fractional horsepower electric motors (excluding timing motors).....	do.....	(D)	(D)	(2)	(2)
367010	Electron tubes, except X-ray.....	Thousands.....	103	299	(2)	(2)
367408	Solid state semiconductors.....	do.....	8,734	2,419	(2)	(2)
335606	Nickel and nickel base-alloy mill shapes and forms.....	1,000 lbs.....	544	1,874	(2)	(2)
335602	Tantalum mill products.....	(X)		1,140	(2)	(2)
281995	Silicon, hyperpure.....	Kilograms.....	345,692	11,800	(2)	(2)
335603	Molybdenum, rolled, drawn or extruded.....	Pounds.....	24,395	432	(2)	(2)
335605	Germanium.....	do.....	51,753	6,530	(2)	(2)
335733	Tungsten wire.....	(X)		187	(2)	(2)
260091	Paper and paperboard containers.....	(X)		1,447	(2)	(2)
322921	Glass tube blanks.....	Thousands.....	291,105	6,131	(2)	(2)
320311	Glass products other than tube blanks.....	(X)		4,392	(2)	(2)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	140,632	(2)	(2)
			INDUSTRY 3679.—ELECTRONIC COMPONENTS, N.E.C. <sup>2</sup>			
	Materials, parts, containers, and supplies, total.....		(X)	754,690	(X)	497,179
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	3,927	1,182	9,237	2,318
331012	Sheet and strip.....	do.....	40,553	9,797	24,318	5,211
331015	Structural shapes.....	do.....	825	272	1,986	500
331017	Wire and wire products.....	do.....	7,860	2,979	4,532	2,478
331019	All other carbon steel mill shapes and forms.....	do.....	7,272	3,593	31,364	7,165
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	do.....	770	464	8,120	4,578
331029	All other alloy steel mill shapes and forms.....	do.....	22,200	11,488		
331031	Stainless steel.....	do.....	1,552	2,364	651	811
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction only).....	1,000 lbs.....	16,706	11,070	14,585	8,748
335790	Insulated wire and cable.....	1,000 lbs. (copper content).....	26,304	18,087	12,324	10,250
335102	Rod, bar and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	15,583	7,322	10,197	8,833
335123	Plate sheet and strip (including military cups and discs)....	do.....	12,218	7,103		
335127	Pipe and tube.....	do.....	4,935	3,280		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	do.....	23,252	15,364	14,297	11,728
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)..	do.....	15,704	12,631	15,471	8,027
335209	All other aluminum mill shapes and forms.....	do.....	4,381	3,588		
	Castings (rough and semifinished):					
332300	Steel.....	Short tons.....	875	642	385	262
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	2,033	3,894	1,186	1,215
336200	Copper and copper-base alloy.....	do.....	499	485	321	290
	Fractional electric horsepower motors (under 1 hp.):					
362110	Timing motors, synchronous and subsynchronous.....	Thousands.....	(D)	(D)	114	524
362115	Other fractional horsepower electric motors (excluding timing motors).....	do.....	426	1,366	1,782	5,886

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
INDUSTRY 3679.— ELECTRONIC COMPONENTS, N.E.C.—Con.						
367010	Electron tubes, except X-ray.....	Thousands.....	6,792	5,290	2,474	3,390
367408	Solid state semiconductors.....	...do.....	15,918	13,718	1,732	2,599
281995	Silicon, hyperpure.....	Kilograms.....	2,773	395	(NA)	(NA)
335605	Germanium.....	Pounds.....	1,139	1,022	(NA)	(NA)
260091	Paper and paperboard containers.....	(X)		7,080	(NA)	(NA)
329905	Mica.....	Pounds.....	687,544	3,212	(X)	2,604
335606	Nickel and nickel-base alloy mill shapes and forms.....	1,000 lbs.....	1,172	3,646	1,178	3,056
335602	Tantalum mill products.....	Pounds.....	159,417	8,237	(NA)	2,023
335603	Molybdenum, rolled, drawn, or extruded.....	...do.....	14,371	255	(NA)	(NA)
335733	Tungsten wire.....	1,000 lbs.....	1,065	289	(NA)	(NA)
339913	Ferrites (powders and paste).....	(X)		9,354	(X)	3,605
Glass and glass products:						
322921	Tube blanks.....	Thousands.....	465	254	(NA)	(NA)
320311	Other than tube blanks.....	.....	(X)	3,282	(X)	(NA)
367951	Fabricated electron tube parts except blanks.....	(X)		1,712	(X)	(NA)
282130	Thermoplastic resins (cellulosics, polyethylenes, styrenes, etc.)..	1,000 pounds...	5,032	2,823	(NA)	(NA)
282140	Thermosetting resins (melamines, phenolics, polyesters, ureas, etc.)	...do.....	9,968	6,703	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	(X)		434,704	(X)	326,496
976000	Materials, parts, containers, and supplies, n.s.k.....	(X)		135,742	(X)	74,582

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. <sup>1</sup>Revised.

<sup>1</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

<sup>2</sup>Since industry 3674 was included as part of industry 3679 in 1958, separate statistics on materials consumed for industry 3674 in 1958 are included in the detail for industry 3679.

TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

Item	Radio and TV receiving sets (SIC 3651)	Phonograph records (SIC 3652)	Telephone; telegraph apparatus (SIC 3661)	Radio, TV communi- cations equipment (SIC 3662)	Electron tubes, receiving type (SIC 3671)	Cathode ray picture tubes (SIC 3672)	Electron tubes, transmitting (SIC 3673)	Electronic components, n.e.c. (SIC 3679)
Total cost of purchased fuels and electric energy.....\$1,000..	7,034	1,581	9,322	23,128	3,517	2,300	4,309	26,440
Total cost of purchased fuels.....do....	2,312	724	3,211	5,895	896	729	1,057	6,752
Bituminous coal, lignite, and anthracite:								
Quantity.....1,000 short tons..	52	(S)	189	45	(S)	(S)	(S)	52
Cost.....\$1,000..	360	(S)	1,363	378	(S)	(S)	(S)	369
Coke and breeze:								
Quantity.....1,000 short tons..	-	-	(S)	-	-	-	-	(S)
Cost.....\$1,000..	-	-	(S)	-	-	-	-	(S)
Fuel oil (distillate and residual):								
Quantity.....1,000 barrels of 42 gallons..	273	107	233	939	53	31	49	697
Cost.....\$1,000..	966	357	729	2,909	165	118	157	2,488
Gas (natural, manufactured, still, blast furnace, and coke oven):								
Quantity.....million cu.ft..	(S)	547	2,110	2,583	623	719	348	4,578
Cost.....\$1,000..	(S)	276	928	1,903	385	459	234	2,801
Other fuels.....do....	283	(S)	186	705	209	117	495	1,092
Electric energy:								
Purchased:								
Quantity.....million kw.-hrs..	357	60	531	1,440	219	138	276	1,536
Cost.....\$1,000..	4,722	857	6,111	17,233	2,621	1,571	3,252	19,688
Generated less sold.....million kw.-hrs..	(S)	-	152	53	-	-	-	(S)
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	182	25	222	946	48	17	40	372
Prime movers, total.....do....	21	(Z)	91	310	1	1	1	44
Driving generators.....do....	17	-	76	24	1	1	1	21
Not driving generators.....do....	4	(Z)	15	286	(Z)	(Z)	(Z)	23
Electric motors, total.....do....	162	24	209	645	47	15	39	328
Driven by purchased energy.....do....	162	24	130	636	47	15	39	328
Driven by energy generated at establishment.....do....	(Z)	-	78	10	-	-	-	(Z)
Aggregate horsepower per 100 production workers.....	276	354	326	645	224	313	263	219

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3651-	RADIO AND TV RECEIVING SETS										
	Entire industry.....	348	81,264	411,924	66,538	128,463	289,287	911,954	1,389,412	2,254,878	30,511
	Establishments with—										
	90% or more specialization..	274	52,724	253,916	45,017	86,026	186,596	654,478	1,081,312	1,691,378	19,262
	75-89% specialization.....	21	14,568	87,206	10,709	21,488	54,379	143,700	173,741	314,451	7,781
36511	Household and automobile radios, and phonograph combinations (primary product class of estab.)	35	17,448	94,454	14,205	27,759	68,056	200,974	257,370	452,294	8,765
	Establishments with—										
	90% or more specialization....	22	5,042	24,260	4,234	8,458	17,434	68,635	96,340	162,416	1,273
36512	Household television receivers, including television combinations (primary product class of estab.)	24	39,410	204,764	33,265	63,015	146,594	508,188	919,672	1,390,810	15,928
	Establishments with—										
	90% or more specialization....	7	10,302	52,941	8,514	16,227	39,422	159,766	297,294	439,081	2,148
	75-89% specialization.....	6	16,048	83,960	14,459	27,531	64,941	180,081	359,512	526,513	8,896
36513	Recorders, audio amplifiers, phonographs, tuners, speaker systems, and other audio equipment and accessories (primary product class of estab.).....	169	22,793	106,586	17,686	34,975	69,848	192,115	204,472	393,078	5,059
	Establishments with—										
	90% or more specialization....	116	7,326	39,688	6,099	11,892	20,846	58,599	58,087	115,311	1,538
	75-89% specialization.....	17	4,692	21,929	3,707	7,159	15,084	41,130	41,130	90,078	738
3661-	TELEPHONE; TELEGRAPH APPARATUS										
	Entire industry.....	90	89,465	554,375	63,983	122,707	358,741	1,013,792	704,187	1,736,358	55,127
	Establishments with—										
	90% or more specialization..	67	41,886	249,015	30,969	58,949	169,789	498,394	322,921	818,488	20,349
36611	Telephone switching and switch-board equipment (primary product class of estab.).....	15	43,117	274,590	30,661	57,807	180,786	472,449	306,835	789,777	(D)
	Establishments with—										
	90% or more specialization....	3	148	665	125	220	491	2,263	985	3,240	(D)
36612	Other telephone and telegraph (wire) apparatus, equipment, and components (primary product class of estab.).....	51	46,202	279,108	33,205	64,669	177,493	540,076	396,371	944,337	(D)
3662-	RADIO, TV COMMUNICATIONS EQUIPMENT										
	Entire industry.....	1,132	387,384	2,840,218	205,698	419,121	1,230,671	4,327,671	2,822,882	7,145,600	138,734
	Establishments with—										
	90% or more specialization..	890	242,904	1,803,960	125,728	254,497	739,699	2,863,220	1,818,259	4,647,647	82,671
	75-89% specialization.....	83	49,606	339,204	25,518	54,050	147,369	506,459	400,048	908,751	22,117
36621	Commercial, industrial, and military electronic communication equipment (except broadcast equipment, space satellite-borne communications equipment) (complete package) (primary product class of estab.).....	210	76,540	535,179	44,668	92,490	250,045	828,362	614,829	1,439,735	23,416
	Establishments with—										
	90% or more specialization....	135	18,847	119,917	11,289	23,133	49,990	247,267	150,059	388,257	7,207
	75-89% specialization.....	23	5,998	36,059	3,590	7,758	17,965	46,844	72,335	130,436	690
36622	Radio and television broadcast equipment, and closed circuit systems (primary product class of estab.).....	109	8,220	55,976	4,393	9,055	25,170	94,675	80,392	174,067	1,909
	Establishments with—										
	90% or more specialization....	84	1,423	7,744	911	1,816	4,036	14,045	11,465	26,321	468
	75-89% specialization.....	8	2,158	14,121	1,055	2,198	5,131	21,241	24,542	44,182	302

See footnotes at end of table.

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
36623	Intercommunication equipment (except telephone and telegraph) and electric alarm and signal systems and devices (primary product class of estab.).....	82	8,839	53,349	5,438	10,572	27,845	92,738	57,025	150,376	2,737
	Establishments with--										
	90% or more specialization....	54	4,605	26,883	2,806	5,547	14,347	48,729	32,554	81,208	1,603
	75-89% specialization.....	14	2,674	17,897	1,596	3,004	9,078	28,904	14,077	43,605	715
36624	Electronic navigational aids (except missile-borne and space vehicle basin equipment) (primary product class of estab.).....	53	45,215	324,696	24,117	49,347	136,095	557,811	361,540	911,628	10,406
	Establishments with--										
	90% or more specialization....	16	12,802	91,997	7,065	15,122	40,236	149,898	76,960	222,729	2,964
	75-89% specialization.....	5	4,197	30,230	2,319	4,447	11,576	61,370	38,810	93,289	1,098
36625	Electronic search and detection apparatus, including radar, infrared and sonar (primary product class of estab.).....	95	123,830	923,893	61,910	124,610	391,611	1,302,323	913,289	2,269,336	37,498
	Establishments with--										
	90% or more specialization....	27	32,662	246,958	15,286	29,601	107,613	412,089	213,286	641,004	6,476
	75-89% specialization.....	17	19,424	140,408	11,317	22,907	61,651	199,890	119,645	323,410	4,023
36626	Electronic military, industrial, and commercial equipment, n.e.c. (primary product class of estab.)	281	38,466	251,645	23,760	48,048	128,038	359,899	231,302	588,839	16,787
	Establishments with--										
	90% or more specialization....	194	17,074	103,235	11,423	23,345	55,066	149,435	113,449	263,192	7,032
	75-89% specialization.....	29	7,985	58,978	5,319	10,784	39,303	81,292	34,450	113,913	2,024
3673-	ELECTRON TUBES, TRANSMITTING										
	Entire industry.....	57	18,704	129,296	11,631	24,027	72,406	204,614	96,311	299,527	13,262
	Establishments with--										
	90% or more specialization..	44	9,774	68,077	6,454	13,271	40,593	101,432	46,973	146,767	5,897
3674-	SEMICONDUCTORS										
	Entire industry.....	107	56,349	320,875	37,548	77,113	168,504	467,035	199,384	687,817	52,439
	Establishments with--										
	90% or more specialization..	92	34,045	189,307	22,167	45,223	94,267	286,881	110,630	405,311	34,285
	75-89% specialization.....	6	13,692	79,956	9,541	20,524	44,969	104,673	56,153	169,080	8,457
3679-	ELECTRONIC COMPONENTS, N.E.C.										
	Entire industry.....	1,934	176,708	881,920	133,412	261,707	550,845	1,457,433	889,488	2,332,215	88,508
	Establishments with--										
	90% or more specialization..	1,689	127,006	599,157	98,552	191,969	389,691	1,014,937	575,799	1,586,587	50,352
	75-89% specialization.....	80	17,172	92,717	12,367	24,239	57,236	162,845	107,464	271,564	6,240
36792	Capacitors for electronic applications (primary product class of estab.).....	106	32,480	137,891	25,737	50,093	94,004	220,852	112,710	333,947	9,871
	Establishments with--										
	90% or more specialization....	79	19,765	79,689	16,138	31,765	56,074	141,031	63,063	206,981	4,482
	75-89% specialization.....	11	6,827	31,379	4,794	9,182	19,345	37,205	29,031	65,689	2,267
36793	Resistors for electronic applications (primary product class of estab.).....	98	23,336	122,525	17,058	34,122	77,105	214,401	81,391	294,499	11,517
	Establishments with--										
	90% or more specialization....	71	12,107	59,434	8,801	17,724	35,990	109,184	37,715	146,644	6,274
	75-89% specialization.....	10	4,954	26,480	3,579	6,944	17,155	38,957	12,301	51,741	1,440
36794	Coils, transformers, reactors, and chokes for electronic applications (primary product class of estab.).....	237	24,911	103,576	20,196	38,007	67,496	153,601	115,474	268,695	4,015
	Establishments with--										
	90% or more specialization....	185	16,250	65,367	13,558	25,408	44,745	93,203	75,165	167,522	2,543
	75-89% specialization.....	15	2,112	9,372	1,746	3,312	5,801	14,088	6,493	20,580	920
36795	Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks) (primary product class of estab.).....	926	86,206	475,827	62,755	123,853	283,704	788,826	532,612	1,308,101	49,913
	Establishments with--										
	90% or more specialization....	768	49,711	257,063	37,488	73,271	161,258	444,105	270,737	709,563	23,567
	75-89% specialization.....	68	13,871	77,067	10,144	19,777	48,802	139,971	98,320	238,598	5,122

Standard Notes: - Represents zero.  
applicable. n.e.c. Not elsewhere classified.

(D) Withheld to avoid disclosing figures for individual companies.

(NA) Not available.

(X) Not



TABLE 9. Establishments, Production Workers, and Man-Hours for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation				Man-hours worked by production workers in the specified operation (1,000)
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>			
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more	
INDUSTRY 3651.—RADIO AND TV RECEIVING SETS									
TOTAL, ALL OPERATIONS.....	(X)	(X)	(X)	(X)	59,204	(X)	(X)	(X)	117,247
Nonferrous die casting.....	5	2	1	2	(D)	(D)	(D)	(D)	(D)
Electroplating and other plating.....	16	5	8	3	233	9	92	132	478
Galvanizing and other hot dip coating.....	4	3	-	1	(D)	(D)	-	(D)	(D)
Heat treating of metals.....	4	4	-	-	9	9	-	-	19
Automatic screw machine department.....	11	7	1	3	148	11	(D)	(D)	305
Machine shop.....	55	24	19	12	1,068	52	184	832	1,832
Tool and die shop.....	44	22	17	5	579	43	191	345	1,199
Stamping, blanking and forming of metals.....	52	18	14	20	1,092	39	126	927	2,195
Painting, lacquering and enameling on metals.....	37	21	14	2	242	48	(D)	(D)	484
Plastics molding.....	2	2	-	-	(D)	(D)	-	-	(D)
Assembly of product.....	125	8	22	95	45,914	16	209	45,689	90,957
Shipping department, including packing and crating...	113	57	39	17	1,567	111	335	1,121	3,139
All other operations such as maintenance, warehousing, etc.....	79	29	14	36	8,096	64	142	7,890	16,127
INDUSTRY 3661.—TELEPHONE; TELEGRAPH APPARATUS									
TOTAL, ALL OPERATIONS.....	(X)	(X)	(X)	(X)	62,315	(X)	(X)	(X)	122,310
Nonferrous die casting.....	4	1	-	3	173	(D)	-	(D)	328
Electroplating and other plating.....	24	7	7	10	589	24	58	507	1,185
Galvanizing and other hot dip coating.....	5	4	1	-	15	10	5	-	32
Heat treating of metals.....	23	11	9	3	193	27	86	80	383
Automatic screw machine department.....	19	3	6	10	614	8	60	546	1,208
Machine shop.....	40	7	13	20	2,919	11	136	2,772	5,738
Tool and die shop.....	29	3	9	17	1,688	10	85	1,593	3,357
Plate or structural fabrication.....	14	-	6	8	715	-	78	637	1,228
Stamping, blanking and forming of metals.....	35	7	8	20	2,751	18	80	2,653	5,285
Painting, lacquering and enameling on metals.....	29	11	13	5	381	21	110	250	736
Plastics molding.....	12	-	3	9	1,273	-	35	1,238	2,441
Assembly of product.....	45	2	6	37	40,430	4	66	40,360	78,946
Shipping department, including packing and crating...	40	13	16	11	727	21	156	550	1,490
All other operations such as maintenance, warehousing, etc.....	42	9	8	25	9,847	15	87	9,745	19,953
INDUSTRY 3662.—RADIO, TV COMMUNICATIONS EQUIPMENT									
TOTAL, ALL OPERATIONS.....	(X)	(X)	(X)	(X)	168,757	(X)	(X)	(X)	339,554
Nonferrous die casting.....	3	2	1	-	(D)	(D)	(D)	-	(D)
Electroplating and other plating.....	99	54	30	15	896	94	273	529	1,803
Galvanizing and other hot dip coating.....	16	11	3	2	(D)	(D)	(D)	(D)	(D)
Heat treating of metals.....	54	43	9	2	197	68	(D)	(D)	469
Automatic screw machine department.....	46	27	19	2	277	52	(D)	(D)	556
Machine shop.....	422	156	146	122	15,349	310	1,425	13,614	32,887
Tool and die shop.....	124	45	44	35	2,787	80	444	2,263	5,791
Plate or structural fabrication.....	53	25	13	15	1,172	42	138	992	2,195
Stamping, blanking and forming of metals.....	189	97	61	31	2,403	174	639	1,590	5,093
Painting, lacquering and enameling on metals.....	227	166	45	16	1,278	261	384	633	2,674
Plastics molding.....	44	25	13	6	373	42	114	217	744
Assembly of product.....	493	67	125	301	88,498	158	1,340	37,000	179,912
Shipping department, including packing and crating...	394	273	81	40	3,329	432	732	2,165	6,537
All other operations such as maintenance, warehousing, etc.....	246	114	69	163	52,102	204	651	51,247	100,723
INDUSTRY 3671.—ELECTRON TUBES, RECEIVING TYPE									
TOTAL, ALL OPERATIONS.....	(X)	(X)	(X)	(X)	20,226	(X)	(X)	(X)	35,170
Electroplating and other plating.....	4	2	2	-	32	(D)	(D)	-	61
Heat treating of metals.....	6	1	2	3	181	(D)	(D)	165	335
Machine shop.....	18	3	7	8	354	7	91	256	650
Tool and die shop.....	5	-	4	1	81	-	(D)	(D)	117
Stamping, blanking and forming of metals.....	6	1	2	3	375	(D)	(D)	(D)	706
Painting, lacquering and enameling on metals.....	6	3	3	-	29	4	25	-	56
Assembly of product.....	21	-	2	19	16,065	-	(D)	(D)	27,834
Shipping department, including packing and crating...	17	6	6	5	288	8	69	211	576
All other operations such as maintenance, warehousing, etc.....	19	1	-	18	2,821	(D)	-	(D)	4,835

See footnotes at end of table.

TABLE 9. Establishments, Production Workers, and Man-Hours for Selected Metalworking Operations: 1963—Continued

Metalworking operations	Number of establishments				Employment in the specified operation				Man-hours worked by production workers in the specified operation (1,000)
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>			
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more	
INDUSTRY 3672.—CATHODE RAY PICTURE TUBES									
TOTAL, ALL OPERATIONS.....	(X)	(X)	(X)	(X)	7,144	(X)	(X)	(X)	15,048
Electroplating and other plating.....	1	-	1	-	(D)	-	(D)	-	(D)
Heat treating of metals.....	1	-	-	1	(D)	-	-	(D)	(D)
Machine shop.....	5	-	2	3	116	-	(D)	(D)	249
Tool and die shop.....	2	-	-	2	(D)	-	-	(D)	(D)
Stamping, blanking and forming of metals.....	3	-	1	2	167	-	(D)	(D)	365
Painting, lacquering and enameling on metals.....	2	1	1	-	(D)	(D)	(D)	-	(D)
Plastics molding.....	1	-	1	-	(D)	-	(D)	-	(D)
Assembly of product.....	17	1	4	12	5,369	(D)	(D)	5,316	11,309
Shipping department, including packing and crating...	16	7	6	3	362	13	52	291	736
All other operations such as maintenance, warehousing, etc.....	14	7	4	5	999	(D)	28	955	2,106
INDUSTRY 3673.—ELECTRON TUBES, TRANSMITTING									
TOTAL, ALL OPERATIONS.....	(X)	(X)	(X)	(X)	10,477	(X)	(X)	(X)	21,931
Electroplating and other plating.....	21	9	9	3	177	15	85	77	367
Galvanizing and other hot dip coating.....	1	1	-	-	(D)	(D)	-	-	(D)
Heat treating of metals.....	17	14	3	-	59	28	31	-	117
Automatic screw machine department.....	1	1	-	-	(D)	(D)	-	-	(D)
Machine shop.....	28	4	8	16	1,316	10	92	1,214	2,779
Tool and die shop.....	14	1	7	6	284	(D)	(D)	212	578
Plate or structural fabrication.....	3	1	1	1	49	(D)	(D)	(D)	109
Stamping, blanking and forming of metals.....	13	7	4	2	107	14	(D)	(D)	223
Painting, lacquering and enameling on metals.....	17	14	2	1	68	27	(D)	(D)	148
Plastics molding.....	3	3	-	-	6	6	-	-	13
Assembly of product.....	36	1	5	30	4,473	(D)	(D)	4,418	9,157
Shipping department, including packing and crating...	34	21	12	1	202	41	(D)	(D)	421
All other operations such as maintenance, warehousing, etc.....	33	6	8	19	3,702	12	78	3,612	8,011
INDUSTRY 3674.—SEMICONDUCTORS									
TOTAL, ALL OPERATIONS.....	(X)	(X)	(X)	(X)	37,244	(X)	(X)	(X)	76,517
Electroplating and other plating.....	33	20	10	3	286	39	101	146	562
Galvanizing and other hot dip coating.....	5	4	1	-	(D)	(D)	(D)	-	(D)
Heat treating of metals.....	13	8	5	-	62	14	48	-	124
Automatic screw machine department.....	4	2	2	-	25	(D)	(D)	-	50
Machine shop.....	45	18	12	15	723	43	117	563	1,455
Tool and die shop.....	13	4	5	4	429	10	45	374	873
Plate or structural fabrication.....	3	1	1	1	(D)	(D)	(D)	(D)	(D)
Stamping, blanking and forming of metals.....	6	2	2	2	62	(D)	(D)	(D)	115
Painting, lacquering and enameling on metals.....	14	9	4	1	61	17	(D)	(D)	125
Plastics molding.....	6	4	1	1	40	(D)	(D)	(D)	80
Assembly of product.....	70	1	9	60	27,738	(D)	(D)	27,652	56,663
Shipping department, including packing and crating...	59	35	15	9	726	69	127	530	1,443
All other operations such as maintenance, warehousing, etc.....	55	9	13	33	6,909	20	114	6,775	14,675
INDUSTRY 3679.—ELECTRONIC COMPONENTS, N.E.C.									
TOTAL, ALL OPERATIONS.....	1,934	(X)	(X)	(X)	111,221	(X)	(X)	(X)	215,998
Nonferrous die casting.....	8	2	4	2	121	(D)	53	(D)	246
Electroplating and other plating.....	138	79	48	11	1,028	156	500	372	2,128
Galvanizing and other hot dip coating.....	39	35	1	3	278	52	(D)	(D)	568
Heat treating of metals.....	70	54	13	3	270	75	101	94	529
Automatic screw machine department.....	62	26	17	19	1,451	47	173	1,231	2,886
Machine shop.....	407	179	145	83	7,348	378	1,395	5,575	15,872
Tool and die shop.....	213	118	75	20	2,179	253	731	1,195	4,360
Plate or structural fabrication.....	28	19	7	2	161	43	(D)	(D)	329
Stamping, blanking and forming of metals.....	219	112	71	36	2,692	235	662	1,795	5,098
Painting, lacquering and enameling on metals.....	186	153	27	6	723	240	213	270	1,473
Plastics molding.....	127	74	39	14	1,607	138	363	1,106	3,239
Assembly of product.....	545	56	104	385	69,085	114	1,160	67,811	143,502
Shipping department, including packing and crating...	459	331	104	24	2,965	594	861	1,510	5,919
All other operations such as maintenance, warehousing, etc.....	383	127	127	129	21,313	244	1,280	19,789	29,849

Footnotes on next page.



TABLE 9. Establishments, Production Workers, and Man-Hours for Selected Metalworking Operations: 1963—Continued

Footnotes for table 9-36D

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

Item	Industry							
	3651	3661	3662	3671	3672	3673	3674	3679
Total number of establishments in the industry.....	348	90	1,132	42	151	57	107	1,934
Number of establishments which reported one or more of the specified operations.....	167	54	634	23	20	41	87	779
Percent of industry production workers in these establishments.....	85-90	95-100	80-85	95-100	85-90	90-95	95-100	80-85
Number of establishments which reported "none" of the operations apply.....	15	2	68	19	16	4	20	157
Percent of industry production workers in these establishments.....	0-5	0-5	0-5	0-5	0-5	0-5	0-5	0-5
Percent of industry production workers in establishments which completed the metalworking operations inquiry.....	85-90	95-100	85-90	95-100	90-95	90-95	95-100	85-90

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.

## MISCELLANEOUS ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3691—Storage Batteries
- 3692—Primary Batteries, Dry and Wet
- 3693—X-Ray and Therapeutic Apparatus and Tubes
- 3694—Electrical Equipment for Internal Combustion Engines
- 3699—Electrical Machinery, Equipment, and Supplies, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3691—STORAGE BATTERIES

This industry comprises establishments primarily engaged in the manufacture of storage batteries for automobiles, trucks, farm tractors, and busses as well as storage batteries for farm uses, communications systems, and railroad equipment. Parts for storage batteries are also included in this industry. For a detailed list of products of industry 3691, refer to table 6A-1, product codes 3691112 to 3691298.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Storage Batteries Industry totaled \$516 million. This amount included shipments of storage batteries (primary products) valued at \$500 million, shipments of other products (secondary products) valued at \$8 million, and miscellaneous receipts (mainly resales) at \$8 million.

This industry's shipments of storage batteries represented 98 percent of its total product shipments. The industry specialization ratio in 1958 was 99 percent.

Shipments of storage batteries by this industry in 1963 represented 99 percent of all shipments of these products (\$504 million) by all industries. In 1958 the coverage ratio was 100 percent.

The production index for the primary products of the industry increased to 153 in 1963 from the 1958 level of 112. The unit value index for 1963 was 92 compared to 96 in 1958. Both indexes were computed on a basis of 1954 = 100.



### 3692—PRIMARY BATTERIES, DRY AND WET

This industry comprises establishments primarily engaged in the manufacture of dry and wet cell primary batteries for flashlights, railroad lanterns, hearing aids, portable radios, farm radios, and general purposes as well as parts and supplies for primary batteries. For a detailed list of products of industry 3692, refer to table 6A-1, product codes 3692012 to 3692095.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Primary Batteries, Dry and Wet, Industry totaled \$195 million. This amount included shipments of dry and wet primary batteries (primary products) valued at \$173 million, shipments of other products (secondary products) valued at \$8 million, and miscellaneous receipts (mainly resales) at \$14 million.

This industry's shipments of dry and wet primary batteries represented 96 percent of its total product shipments. The industry specialization ratio in 1958 was 99 percent.

Shipments of dry and wet primary batteries by this industry represented 91 percent of all shipments of these products (\$192 million) by all industries. In 1958 the coverage ratio was 98 percent.

The production index for the primary products of the industry increased to 120 in 1963 from the 1958 level of 93. The unit value index for 1963 was 135 compared to 123 in 1958. Both indexes were computed on a basis of 1954 = 100.

### 3693—X-RAY AND THERAPEUTIC APPARATUS AND TUBES

This industry comprises establishments primarily engaged in manufacturing radiographic X-ray, fluoroscopic X-ray, and therapeutic X-ray apparatus and tubes for medical, industrial, research and control applications. Establishments primarily engaged in manufacturing radio receiving type tubes are classified in industry 3671; television receiving cathode ray tubes in industry 3672; transmitting tubes in industry 3673; and electrotherapeutic lamp units for ultra-violet and infra-red radiation in industry 3641. For a detailed list of products of industry 3693, refer to table 6A-1, product codes 3693019 to 3693096.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the X-Ray Apparatus and Tubes Industry totaled \$144 million. This amount included shipments of X-ray apparatus and tubes (primary products) valued at \$87 million, shipments of other products (secondary products) valued at \$18 million, and miscellaneous receipts (mainly resales) at \$39 million.

This industry's shipments of X-ray apparatus and tubes represented 83 percent of its total product shipments. The industry specialization ratio in 1958 was 84 percent.

Shipments of X-ray apparatus and tubes by this industry represented 80 percent of all shipments of these products (\$109 million) by all industries. In 1958 the coverage ratio was 82 percent.

### 3694—ELECTRICAL EQUIPMENT FOR INTERNAL COMBUSTION ENGINES

This industry comprises establishments primarily engaged in manufacturing electrical equipment for internal combustion engines. Important products of this industry include starting motors and generators for automobiles and aircraft; and ignition apparatus for

internal combustion engines including spark plugs, magnetos, coils, and distributors. For a detailed list of products of industry 3694, refer to table 6A-1, product codes 3694111 to 3694698.

The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been slightly changed from the classification system used in 1958. The change in composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is due to a revision made in the 1963 supplement to the 1957 edition of the Standard Industrial Classification, reclassifying establishments primarily manufacturing automotive wiring harness sets other than ignition from industry 3694 to industry 3714 (census industry 3717) "Automobiles and Parts."

Value of shipments and other receipts of the Engine Electrical Equipment Industry totaled \$901 million. This amount included shipments of electrical equipment for internal combustion engines (primary products) valued at \$706 million, shipments of other products (secondary products) valued at \$128 million, and miscellaneous receipts (mainly resales) at \$67 million.

This industry's shipments of engine electrical equipment represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 87 percent. Secondary products shipped by this industry in 1963 consisted mainly of parts and accessories for passenger cars, trucks, and busses shipped to motor vehicle manufacturers (\$81 million).

Shipments of electrical equipment for internal combustion engines by this industry represented 81 percent of all shipments of these products (\$874 million) by all industries. In 1958 the coverage ratio was 83 percent.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3694, e.g., Cranking motors (36943), 98 percent; Components and parts for engine electrical equipment (36946), 92 percent; and Ignition harness and cable sets and spark plugs (36941 and 36944 combined), 54 percent.

The higher specialization ratio in 1963 compared with the 1958 figure primarily results from changes in the Standard Industrial Classification system as described above.

The production index for the primary products of the industry increased to 129 in 1963 from the 1958 level of 100. The unit value index for 1963 was 123 compared to 107 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3699—ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing electrical machinery, equipment, and supplies, n.e.c. For a detailed list of products of industry 3699, refer to table 6A-1, product codes 3699211 to 3699629.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Electrical Products, N.E.C., Industry totaled \$190 million. This amount included shipments of electrical machinery, equipment, and supplies, n.e.c. (primary products) valued at \$163 million, shipments of other products (secondary products) valued at \$19 million, and miscellaneous receipts (mainly resales) at \$8 million.



This industry's shipments of electrical machinery, equipment, and supplies, n.e.c., represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 included miscellaneous electronic components and accessories (\$3 million).

Shipments of electrical machinery, equipment, and supplies, n.e.c., by this industry represented 49 percent of all shipments of these products (\$336 million) by all industries. In 1958 the coverage ratio was 54 percent. Other industries shipping electrical machinery, equipment, and supplies, n.e.c., consisted mainly of industry 3357, Nonferrous Wire Drawing, etc., \$102 million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3699, e.g., Lamp bulb components (36992), 65 percent; and Appliance wire and cord and flexible cord sets (36996), 30 percent.

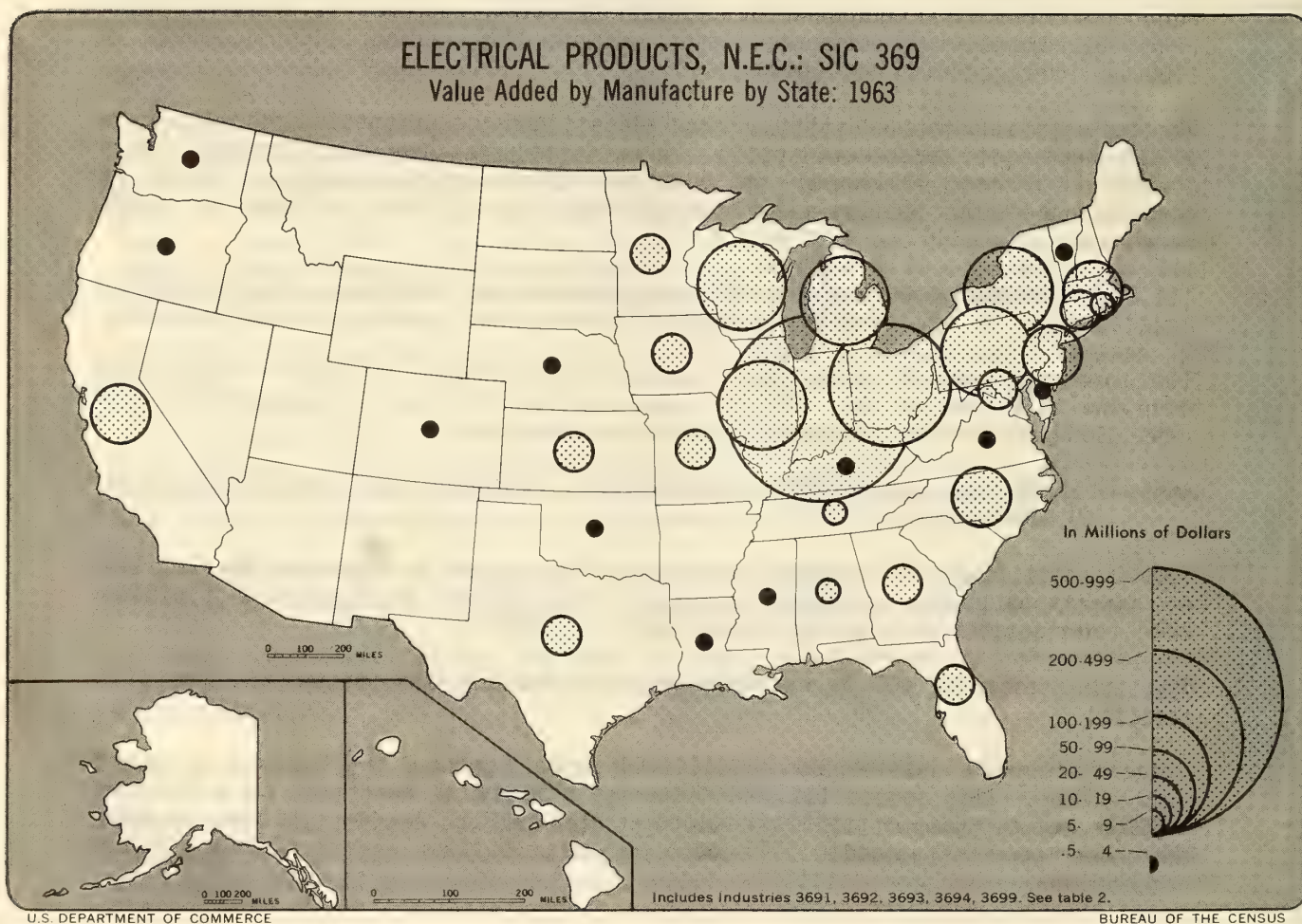


TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new (\$1,000)	Spec- ial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3691.—STORAGE BATTERIES														
1963.....	169	252	120	17,512	108,700	13,871	28,444	80,237	244,152	275,629	516,457	11,968	98	99
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,250	99,410	12,540	29,201	74,813	210,867	245,478	452,097	9,566	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,427	89,516	11,725	27,134	67,261	178,547	245,787	423,353	8,449	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,525	87,867	12,075	26,545	63,709	167,923	244,521	415,777	9,188	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,059	88,298	12,648	27,684	66,081	180,792	244,241	417,413	6,766	(NA)	(NA)
1958.....	207	276	106	14,924	76,961	11,787	23,205	55,459	150,061	211,794	368,993	7,330	99	100
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	14,522	72,217	11,266	21,554	51,282	132,565	226,719	359,353	(S)	98	100
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,820	71,284	11,983	23,488	51,591	124,274	242,962	362,869	17,474	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,882	71,582	11,827	24,120	51,070	129,713	245,835	370,954	9,609	(NA)	(NA)
1954 <sup>2</sup> .....	244	308	101	15,670	66,872	11,899	23,244	46,415	128,882	215,854	343,668	10,512	100	100
1953 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	17,292	73,341	13,315	26,494	53,218	138,795	234,420	373,215	(NA)	(NA)	(NA)
1952 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	16,286	67,185	12,972	26,935	51,071	135,200	238,568	373,768	(NA)	(NA)	(NA)
1951 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	16,794	64,254	13,531	27,948	49,131	138,698	248,329	387,027	(NA)	(NA)	(NA)
1950 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	16,368	57,973	12,927	26,436	42,450	120,419	193,065	313,484	(NA)	(NA)	(NA)
1949 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	15,742	52,320	12,282	24,855	37,073	107,291	175,422	281,713	(NA)	(NA)	(NA)
1947 <sup>2</sup> .....	205	246	(NA)	16,570	49,734	13,632	29,541	38,257	114,246	183,408	297,654	(NA)	90	99
1939 <sup>2</sup> .....	(NA)	190	(NA)	(NA)	(NA)	9,564	(NA)	12,743	35,841	48,932	84,773	(NA)	(NA)	(NA)
INDUSTRY 3692.—PRIMARY BATTERIES, DRY AND WET														
1963.....	26	46	29	8,478	40,602	6,791	13,615	29,029	113,787	80,302	195,298	4,132	96	91
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,326	39,045	6,296	12,982	25,213	109,232	86,372	194,327	3,076	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,006	36,832	5,992	12,169	24,067	96,950	75,389	170,445	2,413	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,433	36,673	6,554	12,734	24,570	94,036	69,187	163,787	3,362	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,911	37,326	7,230	14,307	27,089	96,699	67,098	162,181	1,948	(NA)	(NA)
1958.....	24	42	29	8,096	34,025	6,498	13,236	24,455	75,431	59,518	138,215	2,343	99	98
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,049	33,101	6,575	12,568	24,131	70,493	62,455	126,369	2,121	99	97
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,421	35,572	7,582	14,312	26,056	62,505	63,271	124,744	2,255	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,668	35,489	8,042	15,053	26,170	59,499	62,100	124,752	(S)	(NA)	(NA)
1954 <sup>2</sup> .....	20	41	33	10,773	36,633	8,893	16,814	27,427	58,490	61,080	123,803	2,088	98	98
1953 <sup>2</sup> .....	(NA)	(NA)	(NA)	12,331	40,254	10,617	20,524	31,575	76,159	72,830	148,989	(NA)	(NA)	(NA)
1952 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	11,481	36,105	9,789	19,432	28,516	57,768	70,177	127,945	(NA)	(NA)	(NA)
1951 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	10,960	32,839	9,409	18,500	26,131	50,109	62,582	112,691	(NA)	(NA)	(NA)
1950 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	10,008	27,610	8,657	17,043	22,149	49,908	46,845	96,753	(NA)	(NA)	(NA)
1949 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	9,516	25,514	8,006	16,235	19,891	44,691	41,385	86,076	(NA)	(NA)	(NA)
1947 <sup>2</sup> .....	23	38	(NA)	10,261	24,463	9,181	18,407	20,656	45,275	39,770	85,045	(NA)	90	98
1939 <sup>2</sup> .....	(NA)	31	(NA)	(NA)	(NA)	5,470	(NA)	6,466	18,565	14,245	32,810	(NA)	(NA)	(NA)
INDUSTRY 3693.—X-RAY APPARATUS AND TUBES														
1963.....	56	58	30	6,236	43,796	3,430	6,921	20,124	86,534	56,916	143,706	2,132	83	80
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,240	41,129	3,815	7,900	18,474	76,229	53,171	127,101	1,239	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,377	37,714	3,601	7,375	16,792	67,168	49,995	116,315	1,087	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,064	35,412	3,380	7,219	16,223	67,406	47,246	110,670	826	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,789	32,581	3,241	6,766	15,222	60,057	42,435	101,882	1,086	(NA)	(NA)
1958.....	124	126	33	5,258	30,686	3,012	5,856	14,308	58,436	35,743	95,090	1,371	84	82
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(NA)	(NA)
1954 <sup>2</sup> .....	129	130	35	7,054	32,583	4,601	9,036	17,688	57,665	40,736	97,043	1,913	81	91
1953 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(NA)	(NA)
1952 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	6,551	28,235	4,317	8,909	16,373	48,938	20,803	69,741	(NA)	(NA)	(NA)
1951 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	6,294	25,845	4,232	9,090	15,491	45,160	20,390	65,560	(NA)	(NA)	(NA)
1950 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	4,945	18,297	3,172	6,594	9,960	31,688	12,707	44,395	(NA)	(NA)	(NA)
1949 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	5,306	18,318	3,329	6,511	10,078	34,102	15,695	49,797	(NA)	(NA)	(NA)
1947 <sup>2</sup> .....	114	116	30	7,678	23,217	5,621	11,762	15,354	38,635	20,473	59,518	2,271	94	93
1939 <sup>2</sup> .....	(NA)	77	(NA)	(NA)	(NA)	1,920	(NA)	2,708	12,057	5,690	17,747	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	46	(NA)	(NA)	(NA)	1,936	(NA)	2,760	11,912	5,236	17,148	(NA)	(NA)	(NA)



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spec- ial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
	INDUSTRY 3694.—ENGINE ELECTRICAL EQUIPMENT													
1963.....	163	182	98	40,559	250,202	32,697	66,903	184,438	496,662	398,039	900,663	15,490	93	81
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	43,598	272,568	35,298	71,801	193,029	534,498	382,386	905,004	22,039	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	40,485	236,857	31,949	61,334	157,859	449,219	311,162	766,399	18,698	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	42,926	239,326	33,861	65,742	164,782	470,667	330,960	799,392	13,889	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	41,281	235,993	32,616	66,524	165,103	473,468	323,023	782,467	12,119	(NA)	(NA)
1958 <sup>3</sup> .....	147	157	89	38,127	195,983	29,530	56,394	135,775	353,534	248,149	606,518	8,942	87	84
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	50,874	235,627	40,519	78,714	168,949	435,489	301,781	723,211	12,430	85	87
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	49,277	227,134	39,505	79,474	165,392	396,855	284,530	672,112	16,983	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	53,600	245,103	44,253	91,616	186,006	440,894	327,988	745,645	16,880	(NA)	(NA)
1954 <sup>2</sup> .....	154	169	105	46,349	200,279	37,219	74,147	146,769	336,623	264,580	612,344	18,172	85	87
1953 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	52,970	216,471	44,047	86,872	167,704	348,020	283,053	631,073	(NA)	(NA)	(NA)
1952 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	47,737	194,485	39,359	79,363	150,701	314,830	242,299	557,129	(NA)	(NA)	(NA)
1951 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	51,169	195,591	43,130	85,859	153,850	330,828	265,089	595,917	(NA)	(NA)	(NA)
1950 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	39,971	149,315	33,516	69,280	117,038	263,847	189,779	453,626	(NA)	(NA)	(NA)
1949 <sup>1 2</sup> .....	(NA)	(NA)	(NA)	36,890	124,328	30,471	59,018	94,650	204,471	152,665	357,136	(NA)	(NA)	(NA)
1947 <sup>2</sup> .....	100	112	(NA)	44,450	126,737	38,449	73,329	103,249	198,656	159,143	357,799	(NA)	89	91
1939 <sup>2</sup> .....	(NA)	90	(NA)	(NA)	(NA)	17,043	(NA)	23,675	66,066	40,565	106,631	(NA)	(NA)	(NA)
	INDUSTRY 3699.—ELECTRICAL PRODUCTS, N.E.C.													
1963.....	245	350	106	10,923	51,215	8,492	16,496	33,355	101,221	88,970	190,038	3,271	90	49
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,551	53,293	8,803	16,370	31,817	93,687	96,562	189,308	2,302	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,998	52,483	9,190	18,004	32,854	93,832	86,235	179,549	1,639	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,607	48,683	9,115	17,550	30,889	91,472	82,610	172,572	1,444	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,902	43,748	8,512	16,689	28,040	79,933	90,199	171,844	(S)	(NA)	(NA)
1958 <sup>4</sup> .....	247	259	99	10,259	39,342	8,182	15,776	26,342	73,581	89,773	165,388	1,364	91	54

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>2</sup>Data for Alaska and Hawaii are not included.

<sup>3</sup>A revision in the definition of this industry was made in the 1963 supplement to the 1957 edition of the Standard Industrial Classification, reclassifying establishments primarily manufacturing automotive wiring harness sets other than ignition from industry 3694 to industry 3714 (Census industry 3717) "Motor Vehicles and Parts." The statistics for 1958 to 1962 have been revised to take this reclassification into account. However, comparable data for this industry are not available for earlier years.

<sup>4</sup>A revision of the definition of this industry was introduced in the 1957 Standard Industrial Classification so that earlier figures on a comparable basis are unavailable.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3691.—STORAGE BATTERIES													
Total.....	252	120	17,512	108,700	13,871	28,444	80,237	244,152	275,629	516,457	11,968	14,924	150,061
New England.....	16	10	1,117	7,494	704	1,498	3,197	13,932	13,885	27,195	1,503	501	5,758
Middle Atlantic....	34	18	5,549	34,683	4,200	8,331	24,915	70,027	68,498	137,285	2,340	5,238	46,260
New York.....	8	5	900	5,199	676	1,433	3,372	8,686	9,574	18,787	468	1,011	9,168
New Jersey.....	11	6	1,901	11,584	1,514	3,092	9,301	28,151	23,460	51,079	639	1,556	14,300
Pennsylvania.....	15	7	2,748	17,900	2,010	3,806	12,242	33,190	35,464	67,419	1,233	2,671	22,792
East North Central.	44	26	4,259	27,892	3,562	7,473	22,546	65,897	76,066	142,221	2,107	( <sup>2</sup> )	( <sup>2</sup> )
Ohio.....	5	4	239	1,158	190	387	898	3,548	4,494	8,026	97	819	8,511
Illinois.....	19	11	1,049	4,927	835	1,578	4,333	17,160	18,619	35,972	446	872	12,630
Michigan.....	8	4	652	4,559	544	1,217	3,712	10,231	16,825	26,938	588	446	4,412
West North Central.	21	12	2,041	11,414	1,738	3,529	9,257	27,365	29,712	56,111	435	( <sup>2</sup> )	( <sup>2</sup> )
South Atlantic.....	37	16	1,383	8,083	1,069	2,192	5,412	17,631	26,381	43,956	2,542	830	10,236
East South Central.	12	7	470	2,581	402	838	2,142	8,030	10,219	18,063	369	364	4,412
Tennessee.....	6	4	260	1,428	219	463	1,205	4,381	6,021	10,317	1,323	( <sup>2</sup> )	( <sup>2</sup> )
West South Central.	24	9	862	5,384	690	1,480	4,131	12,651	17,255	29,557	1,482	833	9,258
West.....	64	22	1,831	11,169	1,506	3,103	8,637	28,619	33,613	62,069	1,190	1,752	18,233
California.....	40	15	1,437	9,051	1,207	2,506	7,090	22,792	26,098	48,684	635	1,391	14,419
INDUSTRY 3692.—PRIMARY BATTERIES, DRY AND WET													
Total.....	46	29	8,478	40,602	6,791	13,615	29,029	113,787	80,302	195,298	4,132	8,096	75,431
Northeast.....	15	9	1,778	9,018	1,448	2,956	6,643	23,753	15,796	40,958	738	1,665	16,651
North Central.....	14	12	4,357	19,832	3,550	7,011	14,262	49,871	36,059	85,926	1,532	6,431	58,780
South and West.....	17	8	2,343	11,752	1,793	3,648	8,124	40,163	28,447	68,414	1,862		
INDUSTRY 3693.—X-RAY APPARATUS AND TUBES													
Total.....	58	30	6,236	43,796	3,430	6,921	20,124	86,534	56,916	143,706	2,132	5,258	58,436
Northeast.....	24	13	1,447	9,466	838	1,697	5,044	19,208	10,285	29,269	534	1,270	12,562
North Central.....	18	13	3,593	25,461	2,009	3,979	11,470	52,702	25,352	78,433	1,365	3,205	34,784
Illinois.....	11	7	605	3,604	468	917	2,254	6,456	4,425	11,549	179	( <sup>2</sup> )	( <sup>2</sup> )
South and West.....	16	4	1,196	8,869	583	1,245	3,610	14,624	21,279	36,004	233	783	11,090
INDUSTRY 3694.—ENGINE ELECTRICAL EQUIPMENT													
Total.....	182	98	40,559	250,202	32,697	66,903	184,438	496,662	398,039	900,663	15,490	38,127	353,534
New England.....	17	11	2,152	10,908	1,626	3,035	6,554	18,606	17,686	36,165	397	2,410	17,817
Middle Atlantic....	45	27	4,537	21,718	3,423	6,719	14,168	44,544	28,695	72,954	1,196	7,847	57,376
New York.....	23	13	2,505	11,743	1,844	3,441	6,966	27,770	16,660	44,100	890	6,328	46,519
New Jersey.....	10	6	851	4,129	724	1,525	2,989	6,119	5,245	11,359	81	515	3,246
Pennsylvania.....	12	8	1,181	5,846	855	1,753	4,213	10,655	6,790	17,495	225	1,004	7,611
North Central.....	60	38	31,667	207,565	25,824	53,339	156,432	416,281	338,953	760,396	13,394	27,051	272,185
Ohio.....	11	9	5,919	35,739	4,671	9,339	23,519	77,448	67,400	145,772	3,059	8,135	95,479
Illinois.....	15	10	2,792	15,174	1,859	3,621	8,802	31,280	26,695	60,292	1,541	( <sup>2</sup> )	( <sup>2</sup> )
Wisconsin.....	5	5	1,235	5,706	1,020	2,034	4,188	9,776	6,737	16,396	236	2,031	10,651
South Atlantic.....	13	4	189	713	164	351	597	1,141	791	1,952	10	343	2,155
East South Central.	9	7	1,107	4,369	947	1,991	3,308	7,714	7,486	16,486	197		
West South Central.	8	1	67	288	57	116	212	455	451	914	17		
West.....	30	10	840	4,641	656	1,352	3,167	7,921	3,977	11,796	279	476	4,001
California.....	27	10	817	4,508	638	1,310	3,095	7,723	3,785	11,407	272	462	3,881



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
	Total	With 20 employees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
	INDUSTRY 3699.—ELECTRICAL PRODUCTS, N. E. C.												
Total.....	350	106	10,923	51,215	8,492	16,496	33,355	101,221	88,970	190,038	3,271	10,259	73,581
New England.....	28	11	1,666	7,763	1,333	2,666	5,793	16,743	12,014	28,523	528	1,202	8,584
Massachusetts....	12	2	773	3,409	580	1,147	2,439	6,920	5,863	12,603	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Connecticut.....	10	5	240	1,112	195	394	791	1,378	1,785	3,131	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Middle Atlantic....	119	39	3,210	13,736	2,722	5,241	9,946	28,496	32,138	59,931	737	3,430	25,703
New York.....	65	26	2,277	8,765	1,912	3,714	6,023	17,370	22,734	39,433	254	2,524	15,330
East North Central.	79	37	2,768	12,291	2,303	4,386	8,444	24,101	23,188	47,397	441	( <sup>2</sup> )	( <sup>2</sup> )
Ohio.....	17	8	739	4,118	582	1,116	2,842	8,762	7,038	15,786	82	898	7,905
Indiana.....	14	11	685	2,664	583	1,060	1,728	5,578	4,754	10,626	169	296	2,000
Wisconsin.....	4	4	159	636	134	255	453	1,015	1,355	2,352	23	123	733
West North Central.	14	8	704	3,133	493	916	1,977	8,638	5,673	14,785	159	( <sup>2</sup> )	( <sup>2</sup> )
Missouri.....	5	5	548	2,367	365	677	1,412	6,787	3,842	10,999	94	( <sup>2</sup> )	( <sup>2</sup> )
South.....	44	6	1,953	10,807	1,198	2,461	5,269	16,949	10,345	27,428	1,284	( <sup>2</sup> )	( <sup>2</sup> )
West.....	66	5	622	3,485	443	826	1,926	6,294	5,612	11,974	122	972	6,467
California.....	56	5	603	3,380	429	797	1,844	6,081	5,448	11,624	120	( <sup>2</sup> )	( <sup>2</sup> )

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.  
(X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup> General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.  
SIC 3691, Storage Batteries: New England--Massachusetts, 10 (558); Rhode Island, 1 (20-99); Connecticut, 5 (500-999); East North Central--Indiana, 8 (1,771); Wisconsin, 4 (191); West North Central--Minnesota, 5 (558); Iowa, 2 (20-99); Missouri, 8 (702); Nebraska, 1 (20-99); Kansas, 5 (689); South Atlantic--Delaware, 1 (100-249); Maryland, 3 (1-19); District of Columbia, 1 (1-19); Virginia, 4 (20-99); North Carolina, 5 (234); Georgia, 8 (504); Florida, 15 (390); East South Central--Kentucky, 4 (100-249); Mississippi, 2 (20-99); West South Central--Louisiana, 4 (20-99); Oklahoma, 1 (100-249); Texas, 19 (686); Mountain--Colorado, 4 (129); New Mexico, 1 (1-19); Arizona, 2 (1-19); Utah, 2 (20-99); Pacific--Washington, 4 (20-99); Oregon, 10 (179); Alaska, 1 (1-19).  
SIC 3692, Primary Batteries, Dry and Wet: New England--Vermont, 1 (250-499); Connecticut, 2 (20-99); Middle Atlantic--New York, 6 (674); New Jersey, 3 (250-499); Pennsylvania, 3 (100-249); East North Central--Ohio, 3 (1,000-2,499); Illinois, 3 (1,000-2,499); Wisconsin, 6 (1,000-2,499); West North Central--Iowa, 1 (250-499); Missouri, 1 (20-99); South Atlantic--Maryland, 2 (100-249); North Carolina, 6 (2,128); East South Central--Tennessee, 1 (100-249); Mountain--Colorado, 1 (20-99); Pacific--Washington, 1 (1-19); Oregon, 1 (1-19); California, 5 (1-19).  
SIC 3693, X-Ray Apparatus and Tubes: New England--Massachusetts, 4 (20-99); Connecticut, 3 (230); Middle Atlantic--New York, 12 (761); New Jersey, 3 (250-499); Pennsylvania, 2 (100-249); East North Central--Ohio, 2 (1,000-2,499); Wisconsin, 2 (1,000-2,499); West North Central--Minnesota, 2 (20-99); Missouri, 1 (20-99); South Atlantic--Maryland, 1 (500-999); Florida, 1 (20-99); East South Central--Kentucky, 1 (1-19); West South Central--Texas, 1 (1-19); Pacific--Washington, 1 (1-19); Oregon, 1 (100-249); California, 10 (150).  
SIC 3694, Engine Electrical Equipment: New England--New Hampshire, 1 (1-19); Massachusetts, 9 (1509); Connecticut, 6 (500-999); East North Central--Indiana, 5 (15,879); Michigan, 15 (5,000-9,999); West North Central--Minnesota, 2 (1-19); Iowa, 1 (250-499); Missouri, 3 (20-99); Nebraska, 1 (1-19); Kansas, 2 (1-19); South Atlantic--Delaware, 1 (20-99); Maryland, 1 (1-19); North Carolina, 3 (20-99); South Carolina, 1 (20-99); Georgia, 1 (1-19); Florida, 6 (20-99); East South Central--Kentucky, 4 (249); Tennessee, 3 (20-99); Alabama, 1 (500-999); Mississippi, 1 (20-99); West South Central--Arkansas, 1 (1-19); Louisiana, 2 (20-99); Oklahoma, 1 (1-19); Texas, 4 (20-99); Mountain--New Mexico, 1 (1-19); Nevada, 1 (1-19); Pacific--Washington, 1 (1-19).  
SIC 3699, Electrical Products, n.e.c.: New England--Maine, 1 (100-249); New Hampshire, 2 (20-99); Rhode Island, 3 (250-499); Middle Atlantic--New Jersey, 34 (639); Pennsylvania, 20 (294); East North Central--Illinois, 26 (500-999); Michigan, 18 (500-999); West North Central--Minnesota, 5 (124); Iowa, 1 (1-19); Nebraska, 2 (20-99); Kansas, 1 (1-19); South Atlantic--Maryland, 2 (1-19); Virginia, 2 (20-99); North Carolina, 3 (1-19); Georgia, 4 (20-99); Florida, 12 (1,419); East South Central--Tennessee, 3 (20-99); Alabama, 2 (1-19); West South Central--Arkansas, 1 (1-19); Oklahoma, 5 (1-19); Texas, 10 (350); Mountain--Colorado, 3 (1-19); Arizona, 3 (1-19); Pacific--Washington, 4 (1-19).

<sup>2</sup> This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

TABLE 3. Detailed Statistics: 1963

Item	Storage batteries (SIC 3691)	Primary batteries, dry and wet (SIC 3692)	X-ray apparatus and tubes (SIC 3693)	Engine electrical equipment (SIC 3694)	Electrical products, n.e.c. (SIC 3699)
Primary product specialization ratio <sup>1</sup> .....	.98	.96	.83	.93	.90
Coverage ratio <sup>2</sup> .....	.99	.91	.80	.81	.49
Establishments, total.....number..	252	46	58	182	350
With 1 to 19 employees.....do....	132	17	28	84	244
With 20 to 99 employees.....do....	73	7	19	51	83
With 100 employees or more.....do....	47	22	11	47	23
Proprietors and working partners.....do....	111	13	11	44	155
All employees (average for the year).....do....	17,512	8,478	6,236	40,559	10,923
Payroll (all employees), total for year.....\$1,000..	108,700	40,602	43,796	250,202	51,215
Production workers:					
Average for the year.....number..	13,871	6,791	3,430	32,697	8,492
March.....do....	13,473	6,461	3,292	33,321	8,035
May.....do....	13,623	6,589	3,344	33,598	8,100
August.....do....	13,174	7,170	3,371	31,113	8,705
November.....do....	15,214	6,945	3,710	32,770	9,125
Man-hours.....1,000..	28,444	13,615	6,921	66,903	16,496
January-March.....do....	7,254	3,265	1,767	17,018	3,944
April-June.....do....	6,702	3,487	1,780	17,353	3,973
July-September.....do....	6,597	3,252	1,624	15,435	4,054
October-December.....do....	7,902	3,624	1,768	17,121	4,525
Wages.....\$1,000..	80,237	29,029	20,124	184,438	33,355
Cost of materials, etc., total.....do....	275,629	80,302	56,916	398,039	88,970
Materials, parts, containers, and supplies consumed.....do....	264,197	69,928	34,352	356,386	83,253
Cost of resales.....do....	2,955	8,754	21,376	34,795	3,876
Fuels consumed.....do....	2,217	529	185	1,783	506
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	442	61	39	344	69
Cost.....\$1,000..	5,159	817	552	2,787	1,048
Generated less sold.....million kw.-hrs..	(D)	-	-	(D)	-
Contract work.....\$1,000..	1,101	274	451	2,288	287
Value of shipments (including resales), total.....do....	516,457	195,298	143,706	900,663	190,038
Value of resales.....do....	3,959	12,413	28,844	59,316	6,450
Value added by manufacture, adjusted.....do....	244,152	113,787	86,534	496,662	101,221
Manufacturers' inventories:					
Beginning of year, total.....do....	72,900	29,464	30,274	109,644	25,078
Finished products.....do....	23,548	10,370	12,238	33,050	6,973
Work-in-process.....do....	27,933	8,992	8,588	44,120	4,211
Materials, supplies, fuel, etc.....do....	21,419	10,102	9,448	32,474	13,894
End of year, total.....do....	75,138	29,986	30,036	99,818	24,330
Finished products.....do....	23,836	9,292	11,608	31,921	7,349
Work-in-process.....do....	30,065	8,861	8,962	39,287	3,988
Materials, supplies, fuel, etc.....do....	21,237	11,833	9,466	28,610	12,993
Expenditures for plant and equipment, total.....do....	12,445	4,207	2,190	17,187	3,333
New, total.....do....	11,968	4,132	2,132	15,490	3,271
New structures and additions to plant.....do....	3,460	1,173	579	3,009	260
New machinery and equipment.....do....	8,508	2,959	1,553	12,481	3,011
Used plant and equipment.....do....	477	75	58	1,697	62
Selected operating ratios:					
Payroll/Total employment.....	6,207	4,789	7,023	6,169	4,689
Production workers/Total employment.....	.79	.80	.55	.81	.78
Man-hours/Production workers.....	2,051	2,005	2,018	2,046	1,943
Production worker wages/Man-hours.....	2.82	2.13	2.91	2.76	2.02
Cost of materials and payrolls/Total value of shipments....	.74	.62	.70	.72	.74
Cost of materials/Total value of shipments.....	.53	.41	.40	.44	.47
Adjusted value added/Total employment.....	13,942	13,421	13,877	12,245	9,267
Salaries and wages/Adjusted value added.....	.45	.36	.51	.50	.51

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3691.—STORAGE BATTERIES											
Establishments.....number..	252	76	31	25	41	32	29	13	3	2	
All employees:											
Total.....do....	17,512	124	219	360	1,313	2,335	4,303	4,576	4,282	(D)	
Payroll.....\$1,000..	108,700	591	1,051	1,740	6,614	13,074	27,079	27,047	29,504	(D)	
Value added, adjusted.....do....	244,152	1,612	2,203	3,834	15,270	31,658	70,146	60,407	59,022	(D)	
Value of shipments.....do....	516,457	3,307	4,171	9,301	37,917	74,684	158,267	120,227	108,583	(D)	
Capital expenditures, new...do....	11,968	1,283	154	219	872	1,619	5,662	2,181	978	(D)	
INDUSTRY 3692.—PRIMARY BATTERIES, DRY AND WET											
Establishments.....number..	46	10	3	4	2	5	9	9	3	1	
All employees:											
Total.....do....	8,478	12	16	117	(D)	358	1,751	6,224	(D)	(D)	
Payroll.....\$1,000..	40,602	54	64	564	(D)	1,443	8,784	29,693	(D)	(D)	
Value added, adjusted.....do....	113,787	105	158	981	(D)	3,420	30,915	78,208	(D)	(D)	
Value of shipments.....do....	195,298	246	290	2,155	(D)	5,928	53,102	133,577	(D)	(D)	
Capital expenditures, new...do....	4,132	270	(D)	(D)	(D)	86	1,857	2,119	(D)	(D)	
INDUSTRY 3693.—X-RAY APPARATUS AND TUBES											
Establishments.....number..	58	9	7	12	7	12	7	1	2	1	
All employees:											
Total.....do....	6,236	24	56	171	203	806	1,652	(D)	3,324	(D)	
Payroll.....\$1,000..	43,796	116	390	936	1,175	4,834	10,721	(D)	25,624	(D)	
Value added, adjusted.....do....	86,534	192	864	1,107	2,416	8,899	23,343	(D)	49,713	(D)	
Value of shipments.....do....	143,706	348	1,335	2,494	4,192	15,771	33,005	(D)	86,561	(D)	
Capital expenditures, new...do....	2,132	7	22	29	43	323	593	(D)	1,116	(D)	
INDUSTRY 3694.—ENGINE ELECTRICAL EQUIPMENT											
Establishments.....number..	182	38	19	27	31	20	19	16	6	4	2
All employees:											
Total.....do....	40,559	55	145	382	982	1,379	3,040	5,997	4,382	24,197	(D)
Payroll.....\$1,000..	250,202	273	789	1,729	4,011	6,474	15,118	30,769	17,719	173,320	(D)
Value added, adjusted.....do....	496,662	602	1,479	3,355	6,605	11,247	31,903	54,578	38,516	348,377	(D)
Value of shipments.....do....	900,663	1,110	2,640	6,310	11,978	19,768	67,151	101,684	76,429	613,593	(D)
Capital expenditures, new...do....	15,490	22	61	112	177	605	1,190	1,840	756	10,727	(D)
INDUSTRY 3699.—ELECTRICAL PRODUCTS, N.E.C.											
Establishments.....number..	350	167	33	44	58	25	15	5	2	1	
All employees:											
Total.....do....	10,923	190	224	607	1,884	1,664	2,297	1,509	2,548	(D)	
Payroll.....\$1,000..	51,215	1,074	1,128	2,793	8,416	6,520	10,874	6,634	13,776	(D)	
Value added, adjusted.....do....	101,221	1,948	1,999	4,748	15,830	14,183	22,765	18,154	21,594	(D)	
Value of shipments.....do....	190,038	4,034	3,709	11,467	32,451	31,557	41,965	31,086	33,769	(D)	
Capital expenditures, new...do....	3,271	46	43	120	429	465	333	357	1,478	(D)	

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. n.e.c. Not elsewhere classified.

<sup>1</sup>Includes capital expenditures of approximately \$100-\$200 thousand for plants under construction but not in operation.<sup>2</sup>Includes capital expenditures of approximately \$20-\$50 thousand for plants under construction but not in operation.

**TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B+C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3691	Storage batteries.....1963..	516,457	500,373	8,300	7,784	98	504,492	500,373	4,119	99
	1958..	368,993	360,359	2,131	6,503	99	361,489	360,359	1,130	100
3692	Primary batteries, dry and wet...1963..	195,298	173,536	8,000	13,762	96	191,624	173,536	18,088	91
	1958..	138,215	132,525	1,255	4,435	99	135,679	132,525	3,154	98
3693	X-ray apparatus and tubes.....1963..	143,706	87,014	18,031	38,661	83	108,577	87,014	21,563	80
	1958..	95,090	59,948	11,564	23,578	84	72,969	59,948	13,021	82
3694	Engine electrical equipment.....1963..	900,663	705,622	128,394	66,647	93	873,912	705,622	168,290	81
	1958..	606,518	484,585	75,301	46,632	87	586,853	484,585	102,268	83
3699	Electrical products, n.e.c.....1963..	190,038	163,009	18,896	8,133	90	335,524	163,009	<sup>1</sup> 172,515	<sup>1</sup> 49
	1958..	165,388	134,736	12,958	17,694	91	249,231	134,736	<sup>1</sup> 114,495	<sup>1</sup> 54

Note: See Introduction for an explanation of terms used.

<sup>1</sup> Included in this industry are appliance wire and cord and flexible cord sets which are also primary to industry 3357, Nonferrous Wire Drawing, Etc. For 1963, a coverage ratio computed on the basis of including both industries to which appliance wire and cord and flexible cord sets are primary would total 79 percent; 49 percent by industry 3699, and 30 percent by industry 3357. The remaining 21 percent was shipped by establishments in other industries. For 1958, a coverage ratio computed on the basis of including both industries to which appliance wire and cord and flexible cord sets are primary would total 81 percent; 54 percent by industry 3699, and 17 percent by industry 3357. The remaining 19 percent was shipped by establishments in other industries.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Storage batteries (SIC 3691)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	X-ray apparatus and tubes (SIC 3693)	Other industries
STORAGE BATTERIES INDUSTRY					X-RAY APPARATUS AND TUBES INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	516,457	(X)		Total shipments and receipts of the industry.....	(X)	143,706	(X)
	Primary products.....	504,492	500,373	4,119	36930	X-ray equipment, including X-ray tubes and electrotherapeutic apparatus.....	108,577	87,014	21,563
36911	Storage batteries, SLI type.....	360,885	360,885	-		Secondary products.....	(X)	18,031	(X)
36912	Storage batteries, other than SLI type, including parts for storage batteries.....	139,095	134,976	4,119	35673	High frequency induction and dielectric heating equipment and parts, attachments and components	(X)	(over 2)	(X)
36910	Storage batteries, n.s.k.....	4,512	4,512	-	38213	Industrial process instruments....	(X)	(2-5)	(X)
	Secondary products.....	(X)	8,300	(X)	38216	Other mechanical measuring and control instruments.....	(X)	(over 2)	(X)
36920	Primary batteries, dry and wet... All other secondary products....	(X)	3,815 4,485	(X)		Miscellaneous receipts.....	(X)	38,661	(X)
	Miscellaneous receipts.....	(X)	7,784	(X)		Resales.....	(X)	28,844	(X)
	Contract work.....	(X)	75	(X)		Other miscellaneous receipts.....	(X)	9,817	(X)
	Resales.....	(X)	3,959	(X)		Listing of other industries with over \$2 million shipments of X-ray apparatus and tubes:			
	Other miscellaneous receipts.....	(X)	3,750	(X)		3611 Electric measuring instruments.....	(X)	(X)	(5-10)
36912	Listing of the industries with over \$2 million shipments of each primary product classes:				36930	3673 Electron tubes, transmitting	(X)	(X)	(5-10)
	3692 Primary batteries, dry and wet.....	(X)	(X)	(over 2)		3821 Mechanical measuring devices	(X)	(X)	(2-5)
		All industries	Primary batteries, dry and wet (SIC 3692)	Other industries		3831 Optical instruments and lenses.....	(X)	(X)	(over 2)
							All industries	Engine electrical equipment (SIC 3694)	Other industries
PRIMARY BATTERIES, DRY AND WET, INDUSTRY					ENGINE ELECTRICAL EQUIPMENT INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	195,298	(X)		Total shipments and receipts of the industry.....	(X)	900,663	(X)
36920	Primary batteries, dry and wet....	191,624	173,536	18,088		Primary products.....	873,912	705,622	168,290
	Secondary products.....	(X)	8,000	(X)	36942	Battery charging generators.....	199,287	171,882	27,405
36426	Other electric and nonelectric lighting equipment (including hand portable equipment) and parts and accessories.....	(X)	2,651	(X)	36943	Cranking motors.....	134,672	131,333	3,339
	All other secondary products....	(X)	5,349	(X)	36945	Other complete electrical equipment for internal combustion engines.....	217,123	181,903	35,220
36912	Storage batteries, other than SLI type, including parts for storage batteries.....	(X)	(over 2)	(X)	36946	Components and parts for engine electrical equipment.....	114,726	105,542	9,184
	Miscellaneous receipts.....	(X)	13,762	(X)	36941	Ignition harness and cable sets...	58,899	109,602	93,142
	Resales.....	(X)	12,413	(X)	36944	Spark plugs.....	143,845		
	Other miscellaneous receipts.....	(X)	1,349	(X)	36940	Engine electrical equipment, n.s.k.	5,360	5,360	-
	Listing of other industries with over \$2 million shipments of primary batteries, dry and wet:					Secondary products.....	(X)	128,394	(X)
36920	3691 Storage batteries.....	(X)	(X)	3,815	37175	Parts and accessories for passenger cars, trucks, and busses shipped to:			
	3356 Rolling and drawing, n.e.c.	(X)	(X)	(over 2)	37176	Motor vehicle manufacturers....	(X)	81,481	(X)
	3642 Lighting fixtures.....	(X)	(X)	(2-5)		Other than motor vehicle manufacturers.....	(X)	4,633	(X)
	3662 Radio, TV communications equipment.....	(X)	(X)	(over 2)	19610	All other secondary products....	(X)	42,280	(X)
	3694 Engine electrical equipment	(X)	(X)	(over 2)		Small arms ammunition, 30 mm and under (or 1.18 inches and under).....	(X)	(over 2)	(X)

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Engine electrical equipment (SIC 3694)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Electrical products, n.e.c. (SIC 3699)	Other industries
	ENGINE ELECTRICAL EQUIPMENT INDUSTRY—Continued					ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES, N.E.C., INDUSTRY			
	Secondary products—Continued					Total shipments and receipts of the industry.....	(X)	190,038	(X)
	All other secondary products—Continued					Primary products.....	335,524	163,009	172,515
33560	Rolled, drawn, and extruded nonferrous metal mill products (except copper and aluminum)..	(X)	(over 2)	(X)	36992	Lamp bulb components (except glass blanks) and electrical products..	156,918	102,444	54,474
35990	Carburators, pistons, and other machine shop products.....	(X)	(2-5)	(X)	36996	Appliance wire and cord and flexible cord sets (manufactured from purchased materials).....	1167,664	49,822	1117,842
36216	Parts and supplies for motors, generators, and motor generator sets, except land transportation.....	(X)	(2-5)	(X)	36990	Electrical products, n.e.c., n.s.k.....	10,942	10,743	199
36240	Carbon and graphite products...	(X)	(2-5)	(X)		Secondary products.....	(X)	18,896	(X)
36430	Current carrying wiring devices, including lightning rods.....	(X)	(2-5)	(X)		Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks).....	(X)	2,599	(X)
36792	Capacitors for electronic applications.....	(X)	(5-10)	(X)		All other secondary products.....	(X)	16,297	(X)
36920	Primary batteries, dry and wet.	(X)	(over 2)	(X)	36795				
	Miscellaneous receipts.....	(X)	66,647	(X)		Specialty transformers and fluorescent ballasts, except parts.....	(X)	(2-5)	(X)
	Contract work.....	(X)	2,144	(X)		Ignition harness and cable sets.	(X)	(2-5)	(X)
	Scrap and refuse (except iron, steel, copper, and aluminum)....	(X)	2,011	(X)		Electric lamps (bulbs only) including sealed beam lamps....	(X)	(over 2)	(X)
	Resales.....	(X)	59,316	(X)	36121				
	Other miscellaneous receipts.....	(X)	3,176	(X)	36941				
	Listing of other industries with over \$2 million shipments of each primary product classes:				36410				
36941	3357 Nonferrous wire drawing....	(X)	(X)	5,576		Miscellaneous receipts.....	(X)	8,133	(X)
	3679 Electronic components, n.e.c.....	(X)	(X)	(over 2)		Contract work.....	(X)	1,039	(X)
	3699 Electrical products, n.e.c.	(X)	(X)	(2-5)		Resales.....	(X)	6,450	(X)
	3717 Motor vehicles and parts...	(X)	(X)	(over 2)		Other miscellaneous receipts.....	(X)	644	(X)
36942	3621 Motors and generators.....	(X)	(X)	14,081		Listing of other industries with over \$2 million shipments of each primary product classes:			
	3651 Radio and TV receiving sets	(X)	(X)	(over 2)	36992	3564 Blowers and fans.....	(X)	(X)	(5-10)
	3717 Motor vehicles and parts...	(X)	(X)	2,180		3634 Electric housewares and fans.....	(X)	(X)	(2-5)
	3821 Mechanical measuring devices.....	(X)	(X)	(over 2)		3641 Electric lamps.....	(X)	(X)	(over 2)
36944	3717 Motor vehicles and parts...	(X)	(X)	(over 2)		3643 Current carrying wiring devices.....	(X)	(X)	(2-5)
36945	3357 Nonferrous wiring drawing..	(X)	(X)	(over 2)		3679 Electronic components, n.e.c.....	(X)	(X)	5,549
	3599 Miscellaneous machinery...	(X)	(X)	(over 2)		3643 Current carrying wiring devices.....	(X)	(X)	12,624
	3621 Motors and generators.....	(X)	(X)	(2-5)		3357 Nonferrous wire drawing....	(X)	(X)	101,667
	3622 Industrial controls.....	(X)	(X)	(5-10)					
	3643 Current carrying devices...	(X)	(X)	(2-5)					
	3679 Electronic components, n.e.c.....	(X)	(X)	(over 2)					
	3717 Motor vehicles and parts...	(X)	(X)	3,734					
36946	3599 Miscellaneous machinery....	(X)	(X)	(2-5)					
	3821 Mechanical measuring devices.....	(X)	(X)	(over 2)					

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Includes the total for product class 33576, Appliance wire and cord and flexible cord sets, which is primary to industry 3357.



**TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958**

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3691- --	STORAGE BATTERIES, TOTAL.....		(X)	504,492	(X)	361,489
36911 --	Storage batteries, SLI type.....		(X)	360,885	(X)	278,960
	Motor vehicle type storage batteries, including tractor, aircraft, and marine starting, lighting, and ignition types, complete units:					
	Automobile, truck, farm tractor, and bus:					
	Automotive type (all types primarily designed to fit passenger cars, regardless of application) for original equipment:					
36911 12	6 volt.....	1,000 units....	9,214	77,285	{ 413 5,450	{ 3,311 48,798
36911 15	12 volt.....	..do.....				
	For replacement:					
	Wet:					
36911 21	6 volt.....	..do.....	9,915	72,527	<sup>1</sup> 17,450	<sup>1</sup> 128,226
36911 23	12 volt.....	..do.....	8,459	74,095	<sup>1</sup> 7,419	<sup>1</sup> 74,327
	Dry charge:					
36911 27	6 volt.....	..do.....	4,338	33,658	(NA)	(NA)
36911 28	12 volt.....	..do.....	9,496	79,963	(NA)	(NA)
	Heavy-duty transport, motor coach and bus, and diesel starting batteries)(excluding marine and railway diesel starting batteries):					
	For original equipment:					
36911 32	6 volt.....	..do.....	146	1,422	}	76
36911 35	12 volt.....	..do.....	234	3,693		
	For replacement:					
36911 42	6 volt.....	..do.....	478	4,431	273	3,983
36911 45	12 volt.....	..do.....	278	4,437	110	3,106
36911 51	Aircraft.....	..do.....	90	3,154	73	2,649
36911 71	Marine.....	..do.....	92	1,474	118	4,745
36911 98	Other starting, lighting, and ignition type batteries (including motorcycle).....		(X)	4,746	(X)	7,978
36912 --	Storage batteries (other than SLI type) including parts for storage batteries, all types.....		(X)	139,095	(X)	78,511
	Motive power type:					
36912 11	Industrial truck type.....	1,000 units....	70	27,420	(NA)	18,074
36912 19	Other motive power type storage batteries, including mining, and industrial locomotive and railway.....	..do.....	24	3,760	(X)	888
36912 41	Farm and emergency lighting storage batteries.....		(X)	( <sup>3</sup> )	(X)	( <sup>4</sup> )
36912 51	Communication storage batteries (include radio station, telephone and telegraph, and railroad signalling).....		(X)	18,126	(X)	15,626
36912 61	Railway diesel starting batteries.....	1,000 units....	27	6,005	(X)	( <sup>4</sup> )
36912 71	Railway air-conditioning and car lighting batteries.....		(X)	( <sup>3</sup> )	(X)	3,660
36912 91	Parts and supplies for storage batteries.....		(X)	9,525	(X)	10,767
36912 93	Nickel-cadmium batteries.....	1,000 batteries	2,683	8,917	(NA)	(NA)
36912 95		1,000 of cells.	2,933	(X)	(NA)	(NA)
36912 98	Other storage batteries.....		(X)	<sup>3</sup> 565,342	(X)	<sup>4</sup> 29,496
36910 00	Storage batteries, n.s.k.....		(X)	4,512	(X)	4,018
3692- --	PRIMARY BATTERIES, DRY AND WET, TOTAL.....		(X)	191,624	(X)	135,679
	Dry cells (Leclanche types), except military:					
	General purpose (6" or equivalent) 1.5 volt dry cells:					
36920 12	Single unit.....	1,000 batteries	5,084	2,741	<sup>6</sup> 8,355	<sup>6</sup> 5,953
36920 14		1,000 cells....	5,084	(X)	<sup>6</sup> 10,530	(X)
36920 16	Multiple.....	1,000 batteries	1,823	3,031	( <sup>6</sup> )	( <sup>6</sup> )
36920 18		1,000 cells....	5,605	(X)	( <sup>6</sup> )	(X)
	Flashlight cells (single cells only):					
	"D" size:					
36920 22	Standard.....	1,000 cells....	}	34,870	}	363,513
36920 23	Industrial.....	..do.....				
36920 25	"C" size, medium.....	..do.....	}	12,818	}	89,241
36920 26	AA size, penlight.....	..do.....				
36920 27	AAA size, penlight.....	..do.....				
36920 28	N size, novelty.....	..do.....				
36920 29	All other single cells.....	..do.....				
36920 31	Lantern batteries and other multiple cells (general purpose industrial RR type emergency and other multiple cells).....	1,000 batteries	16,794	14,227	12,758	7,784
36920 33		1,000 cells....	86,466	(X)	54,139	(X)
	Hearing aid cells:					
36920 41	A type.....	1,000 batteries	( <sup>8</sup> )	( <sup>8</sup> )	<sup>9</sup> 9,424	<sup>9</sup> 1,454
36920 43		1,000 cells....	( <sup>8</sup> )	(X)	<sup>9</sup> 24,311	(X)
36920 45	B type.....	1,000 batteries	( <sup>8</sup> )	( <sup>8</sup> )	( <sup>9</sup> )	( <sup>9</sup> )
36920 47		1,000 cells....	( <sup>8</sup> )	(X)	( <sup>9</sup> )	(X)
36920 51	Photoflash batteries.....	1,000 batteries	( <sup>8</sup> )	( <sup>8</sup> )	( <sup>7</sup> )	( <sup>7</sup> )
36920 53		1,000 cells....	( <sup>8</sup> )	(X)	( <sup>7</sup> )	(X)

See footnotes at end of table.

TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3692- --	PRIMARY BATTERIES, DRY AND WET—Continued					
	Dry cells (Leclanche types), except military—Continued					
	Radio A-B and C cells (other than photoflash and hearing aid):					
36920 55	Portable radio and instrument.....	1,000 batteries	124,289	32,609	22,586	15,732
36920 57		1,000 cells....	437,655	(X)	339,412	(X)
36920 61	Farm radio "A-B" packs.....	1,000 batteries	(10)	(10)	911	3,586
36920 63		1,000 cells....	(10)	(X)	49,803	(X)
36920 69	Other types.....	1,000 batteries	101,092	101,284	4,431	2,566
36920 71		1,000 cells....	107,529	(X)	73,098	(X)
	Dry cell (except Leclanche type and military):					
36920 72	Mercury.....					
36920 73						
36920 76	Alkali.....	1,000 batteries	8144,734	831,146	(7)	(7)
36920 77		1,000 cells....	8240,276	(X)	(7)	(X)
36920 79	All other dry cells (except military).....					
36920 81						
	Dry cells, military type:					
36920 83	General purpose (6" equivalent) 1.5 volts dry cells, single and	1,000 batteries	(11)	(11)	(7)	(7)
36920 84	multiple unit.....	1,000 cells....	(11)	(X)	(7)	(X)
36920 85	Flashlight, standard.....	1,000 batteries	(11)	(11)	(7)	(7)
36920 86		1,000 cells....	(11)	(X)	(7)	(X)
36920 87	Portable radio types.....	1,000 batteries	(11)	(11)	(7)	(7)
36920 88		1,000 cells....	(11)	(X)	(7)	(X)
36920 89	Other dry cells (military).....	1,000 batteries	1137,428	1120,539	773,463	734,095
36920 91		1,000 cells....	11437,482	(X)	7643,124	(X)
36920 92	Wet cell primary batteries.....	1,000 batteries	824	14,178	(NA)	6,252
36920 93		1,000 cells....	3,258	(X)		
36920 95	Parts and supplies for primary batteries.....		(X)	22,542	(X)	14,807
36920 99	Primary batteries, n.s.k.....		(X)	1,639	(X)	1,880
3693- --	X-RAY APPARATUS AND TUBES, TOTAL.....		(X)	108,577	(X)	72,969
	X-ray equipment, including X-ray tubes, and electro-therapeutic apparatus:					
36930 --	As reported in the census of manufactures.....		(X)	108,577	(X)	72,969
	As reported on Census Annual Form MA-36N.....		(X)	100,599	(X)	(X)
	Medical diagnostic and therapeutic electronic equipment, except X-ray:					
36930 82	Diathermy equipment.....		(X)	3,651	(X)	64,125
36930 92	Electrocardiographs.....	No. of units...	9,803	7,477		
36930 94	Electroencephalographs.....		(X)	(12)		
36930 96	Other (electronic).....		(X)	1218,187		
	X-ray equipment and accessories (excluding X-ray spectrometers and diffraction equipment):					
36930 19	Medical and dental X-ray and gamma ray equipment.....		(X)	42,451	(X)	8,844
36930 34	Industrial and scientific X-ray equipment.....		(X)	12,036		
36930 71	X-ray equipment accessories.....		(X)	6,836		
36930 49	X-ray tubes and valves, sold separately.....	No. of units...	30,121	9,961		
3694- --	ELECTRICAL EQUIPMENT FOR INTERNAL COMBUSTION ENGINES.....		(X)	873,912	(X)	586,853
36941 --	Ignition harness and cable sets <sup>13</sup> .....		(X)	58,899	(X)	28,831
	Ignition harness sets:					
36941 11	Automotive type <sup>13</sup> .....	1,000 units....	20,438	28,667	(NA)	(14)
36941 15	Aircraft type.....	do.....	1,377	6,716	(NA)	9,580
36941 19	Other, including tractor, stationary engine, etc.....		(X)	2,330	(X)	1410,191
36941 51	Cable sets (automotive and aircraft types).....	1,000 units....	15,450	20,742	(NA)	7,923
36941 00	Ignition harness sets, n.s.k.....		(X)	444	(X)	1,137
36942 --	Battery charging generators.....		(X)	199,287	(X)	104,930
	Battery charging generators, including alternators for internal combustion engines:					
	Passenger car and light truck type:					
36942 11	6 volt.....	1,000 units....	450	3,631	321	2,672
36942 15	12 volt.....	do.....	9,334	119,972	5,345	53,574
36942 21	Heavy-duty truck and bus type- 12 volt and higher.....	do.....	280	17,539	581	10,405
36942 29	All other (excluding farm lighting generators, but including farm tractor, marine, stationary, construction machinery, and aircraft and space types).....	do.....	(NA)	16,986	(NA)	7,914
	Regulators for battery charging generators:					
36942 41	Passenger car and light truck type.....	do.....	13,891	34,867	10,237	24,781
36942 49	Other types, including heavy-duty, truck and bus type.....	do.....	727	5,710	(NA)	5,584
36942 00	Battery charging generators, n.s.k.....		(X)	582	(X)	-

See footnotes at end of table.



TABLE 6A-1. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3694- --	ELECTRICAL EQUIPMENT FOR INTERNAL COMBUSTION ENGINES—Con.					
36943 --	Cranking motors.....		(X)	134,672	(X)	82,332
36943 11	Passenger car and light truck type.....	1,000 units...	8,839	108,030	5,735	63,001
36943 31	Heavy-duty truck and bus type.....	..do.....	772	24,754	605	12,341
36943 51	Farm tractor type.....	..do.....	157	1,888	(NA)	6,990
36943 71	Other cranking motors, including aircraft type.....	..do.....	(X)	143,845	(X)	123,064
36944 --	Spark plugs.....					
36944 11	Automotive type.....	1,000 units...	528,607	134,660	(NA)	123,064
36944 31	Aircraft type.....	..do.....	4,354	8,901	(X)	-
36944 00	Spark plugs, n.s.k.....	..do.....	(X)	284	(X)	-
36945 --	Other complete electrical equipment for internal combustion engines.....		(X)	217,123	(X)	133,797
	Ignition coils:					
36945 11	For automotive vehicles (trucks, buses, and passenger cars)...	1,000 units...	18,354	32,743	9,637	16,658
36945 19	Other ignition coils.....	..do.....	786	2,125	1,560	3,272
	Distributors:					
36945 31	Passenger car and light truck type.....	..do.....	9,473	53,886	5,358	28,316
36945 39	Other types.....	..do.....			451	3,122
36945 53	Ignition magnetos (all types).....	No. of units..	174,787	17,355	(NA)	15,285
36945 61	Other ignition equipment.....	..do.....	(X)	5,486	(X)	7,327
	Switches specifically designed for use in vehicles and aircraft (all types: starting, lighting, ignition, etc.):					
36945 81	Automotive vehicle switches (trucks, buses, and passenger cars).....	1,000 units...	113,291	80,670	112,635	38,901
36945 85	Aircraft switches.....	..do.....	(X)	8,829	(X)	4,721
36945 89	Other vehicle switches.....	..do.....	(X)	11,882	(X)	2,316
36945 98	Other complete electrical equipment units for internal combustion engines and vehicles.....	..do.....	(X)	3,884	(X)	13,879
36945 00	Other complete electrical equipment for internal combustion engines, n.s.k.....	..do.....	(X)	263	(X)	-
36946 --	Components and parts for engine electrical equipment.....		(X)	114,726	(X)	103,325
36946 11	Armatures, field coils, and drive end housings for cranking motors.....		(X)	26,838	(X)	16,395
36946 21	Armatures for battery charging generators.....					
36946 31	Parts for ignition distributors:					
	Distributor heads and rotors.....	..do.....	(X)	10,086	(X)	3,706
	Breaker point sets:					
36946 51	Contact arms.....	1,000 units...	(NA)	40,936	49,726	15,326
36946 55	Contact supports and screws.....	..do.....			34,926	8,844
36946 71	Condensers.....	..do.....	52,337	13,615	39,934	10,596
36946 98	Other component parts for engine electrical equipment, including field coils for battery charging generators.....	..do.....	(X)	23,177	(X)	48,458
36946 00	Components and parts for engine electrical equipment, n.s.k....	..do.....	(X)	74	(X)	-
36940 00	Electrical equipment for internal combustion engines, n.s.k.....	..do.....	(X)	5,360	(X)	10,574
3699- --	ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES, N.E.C., TOTAL.		(X)	335,524	(X)	249,231
36992 --	Lamp bulb components (except glass blanks) and other electrical products, total.....		(X)	156,918	(X)	115,846
36992 11	Electric lamp (bulb) bases.....	..do.....	(X)	21,570	(X)	18,204
36992 21	Other electric lamp (bulb) components, including supports, electrodes, lead-ins, and filaments, but excluding lamp bulb blanks.....	..do.....	(X)	56,629	(X)	33,961
36992 51	Electric gongs, chimes and bells.....	..do.....	(X)	8,951	(X)	8,727
36992 71	Christmas tree lighting outfits, including value of bulbs made or purchased and assembled in outfits.....	1,000 sets....	13,063	16,237	(X)	25,354
36992 66	Electric comfort heating equipment (warm-air furnaces and unit heaters), excluding household air space heaters <sup>15</sup> .....	..do.....	(X)	7,144	(X)	29,600
36992 98	Other electrical products, n.e.c.....	..do.....	(X)	46,387		
33576 --	Appliance wire and cord and flexible cord sets.....		(X)	167,664	(X)	127,069
36996 --						
33576 --	Made by industry 3357 (drawing and insulating of nonferrous wire).....	..do.....	(X)	101,667	(X)	66,199
36996 --	Made by industry 3699 (electrical machinery, equipment, and supplies, n.e.c.), and other industries.....	..do.....	(X)	65,997	(X)	60,870
	Flexible cord sets, including heater cord sets:					
33576 13	Rubber insulated.....	..do.....	(X)	25,794	(X)	(NA)
36996 13		..do.....	(X)	11,221	(X)	<sup>16</sup> 20,881
33576 13	Made in nonferrous wire drawing, etc. (industry 3357).....	..do.....	(X)	11,221	(X)	
36996 13	Made in electrical products, n.e.c., (industry 3699) and other industries.....	..do.....	(X)	14,573	(X)	<sup>17</sup> 27,288

See footnotes at end of table.

TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3699- --	ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES, N.E.C.—Con.					
33576 --	Appliance wire and cord and flexible cord sets—Continued					
36996 --						
	Flexible cord sets, including heater cord sets—Continued					
33576 15	Thermoplastic insulated.....		(X)	39,957	(X)	(NA)
36996 15			(X)	19,024	(X)	( <sup>16</sup> )
33576 21			(X)	20,933	(X)	( <sup>17</sup> )
36996 15	Made in nonferrous wire drawing, etc. (industry 3357).....					
	Made in electrical products, n.e.c. (industry 3699), and other industries.....					
33576 21	Appliance wire and cord:					
36996 21						
33576 21						
36996 21	Fixture wire (including heat resistant).....		(X)	18,153	(X)	8,405
	Made in nonferrous wire drawing, etc. (industry 3357).....		(X)	15,270	(X)	6,549
	Made in electrical products, n.e.c. (industry 3699), and other industries.....		(X)	2,883	(X)	1,856
	Flexible cord (including heater cord):					
	Rubber insulated.....		(X)	22,766	(X)	16,205
33576 22	Made in nonferrous wire drawing, etc. (industry 3357).....		(X)	20,793	(X)	14,825
36996 22	Made in electrical products, n.e.c. (industry 3699), and other industries.....		(X)	1,973	(X)	1,380
33576 25	Thermoplastic insulated.....		(X)	26,862	(X)	10,925
36996 25			(X)	22,187	(X)	9,829
33576 25			(X)	4,675	(X)	1,096
36996 25	Made in nonferrous wire drawing, etc. (industry 3357).....					
	Made in electrical products, n.e.c. (industry 3699), and other industries.....					
33576 29	Other appliance wire and cord.....		(X)	24,276	(X)	36,173
36996 29			(X)	7,713	(X)	11,481
33576 29			(X)	16,563	(X)	24,692
36996 29	Made in nonferrous wire drawing, etc. (industry 3357).....					
	Made in electrical products, n.e.c. (industry 3699), and other industries.....					
33576 00	Appliance wire and cord and flexible cord sets, n.s.k.....		(X)	9,856	(X)	7,192
36996 00			(X)	5,459	(X)	2,634
33576 00			(X)	4,397	(X)	4,558
33996 00	Made in nonferrous wire drawing, etc. (industry 3357).....					
	Made in electrical products, n.e.c. (industry 3699), and other industries.....					
36990 00	Electrical products, n.e.c., n.s.k.....		(X)	10,942	(X)	6,316

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>For 1958, includes both wet and dry charge.

<sup>2</sup>For 1958, includes \$180 thousand for which no quantity was reported.

<sup>3</sup>For 1963, product codes 3691241 and 3691271 are included with product code 3691298.

<sup>4</sup>For 1958, product codes 3691241 and 3691261 are included with product code 3691298.

<sup>5</sup>For 1963, a large portion of this value represents work on fuel cells.

<sup>6</sup>Codes 3692012 and 3692014 include data for codes 3692016 and 3692018 in 1958.

<sup>7</sup>Codes 3692089 and 3692091 include data for codes 3692028, 3692029, 3692051, 3692053, and 3692072 through 3692088 in 1958.

<sup>8</sup>Codes 3692072 through 3692081 include data for codes 3692041 through 3692053 in 1963.

<sup>9</sup>Codes 3692041 and 3692043 include data for codes 3692045 and 3692047 in 1958.

<sup>10</sup>Codes 3692069 and 3692071 include data for codes 3692061 and 3692063 in 1963.

<sup>11</sup>Codes 3692089 and 3692091 include data for codes 3692083 through 3692088 in 1963.

<sup>12</sup>Code 3693094 combined with code 3693096 to avoid disclosing figures of individual companies.

<sup>13</sup>Product code 3694111 has been revised to exclude nonignition automotive wiring harness sets. Accordingly, the total for product class 36941 is not comparable with estimates published for 1959 to 1962 in the annual survey of manufactures. Also, see footnote 3 of table 1.

<sup>14</sup>In 1958, automotive type ignition harness sets were included with "all other" (Census product code 3694119) to avoid disclosing operations of individual companies.

<sup>15</sup>Other types of electric comfort heating equipment are included in industry 3634, Electric Housewares and Fans.

<sup>16</sup>In 1958, product codes 3357613 and 3357615 were combined.

<sup>17</sup>In 1958, product codes 3699613 and 3699615 were combined.



**TABLE 6A-2. Automotive Type Storage Batteries—Quantity and Value Shipped, by Class of Customer: 1963 and 1958**

(Product codes 3691112 to 3691128)

Class of customer	Total shipments including interplant transfers			
	1963		1958	
	Quantity (1,000 units)	Value (\$1,000)	Quantity (1,000 units)	Value (\$1,000)
Shipments by all manufacturing establishments, total.....	41,422	337,528	30,732	254,662
To the United States Government.....	485	6,241	647	9,210
To export customers (including shipments to company's foreign branches or subsidiaries).....	193	1,715	664	4,548
To domestic customers:				
For original equipment purposes.....	9,070	75,009	5,631	49,109
For replacement purposes:				
Manufacturer's proprietary brands:				
To jobbers and distributors.....	12,387	111,532	9,914	86,667
To retail dealers.....	978	10,226	1,270	14,228
To other proprietary-brand customers.....	986	6,005	690	4,066
Private brands:				
To oil companies.....	3,703	126,800	3,049	86,834
To tire companies.....	2,053		2,183	
To mail-order and chain stores.....	7,735		5,746	
To motor-vehicle manufacturers (replacement only).....	1,663		368	
To other private-brand customers.....	2,169		570	

**TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
369--	Electrical products, n.e.c.....1963..	(1)	(1)
	.....1958..	(1)	(1)
3691-	Storage batteries <sup>2</sup> .....1963..	153	92
	.....1958..	112	96
36911	Storage batteries, SLI type.....1963..	164	85
	.....1958..	113	95
3692-	Primary batteries, dry and wet.....1963..	120	135
	.....1958..	93	123
3693-	X-ray apparatus and tubes.....1963..	(1)	(1)
	.....1958..	(1)	(1)
3694-	Electrical equipment for internal combustion engines <sup>3</sup> .....1963..	129	123
	.....1958..	100	107
36942	Battery charging generators.....1963..	140	126
	.....1958..	102	97
36943	Cranking motors.....1963..	126	132
	.....1958..	89	114
36945	Other complete electrical equipment for internal combustion engines.....1963..	137	112
	.....1958..	88	108
3699-	Electrical products, n.e.c.....1963..	(1)	(1)
	.....1958..	(1)	(1)

n.e.c. Not elsewhere classified.

<sup>1</sup>Not shown because comparable quantity data were not obtained for a significant portion of these products.

<sup>2</sup>Adjusted to include product class 36912 (Storage batteries, other than SLI type).

<sup>3</sup>Adjusted to include ignition harness and cable sets (product class 36941), spark plugs (product class 36944) and components and parts for engine electrical equipment (product class 36946).

TABLE 6C. **Product Classes—Value Shipped by All Manufacturing Establishments, 1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3691-	Storage batteries.....	504,492	436,646	406,911	404,862	401,483	361,489	336,118	293,358
36911	Storage batteries, SLI type.....	360,885	318,066	298,255	298,990	310,007	278,960	258,840	249,328
36912	Storage batteries, other than SLI types, including parts for storage batteries.....	139,095	115,854	106,071	101,650	87,909	78,511	77,278	44,030
36910	Storage batteries, n.s.k.....	4,512	(2,726)	(2,585)	(4,222)	(3,567)	4,018	(NA)	(NA)
36920	Primary batteries, dry and wet.....	191,624	197,066	171,341	153,320	157,787	135,679	117,926	78,094
36930	X-ray equipment, including X-ray tubes, and electrotherapeutic apparatus.....	<sup>2</sup> 100,599	<sup>2</sup> 81,435	<sup>2</sup> 55,394	87,980	78,307	72,969	66,839	58,868
3694-	Engine electrical equipment.....	873,912	812,798	729,394	743,170	744,332	586,853	588,171	(NA)
36941	Ignition harness and cable sets.....	58,899	39,449	37,370	37,066	35,051	28,831	53,943	(NA)
36942	Battery charging generators.....	199,287	126,498	125,313	123,918	129,666	104,930	105,343	72,519
36943	Cranking motors.....	134,672	119,110	99,086	113,940	111,726	82,332	80,701	47,496
36944	Spark plugs.....	143,845	158,858	149,334	157,473	159,997	123,064	113,631	57,922
36945	Other complete electrical equipment for internal combustion engines.....	217,123	189,514	155,251	160,049	163,214	133,797	158,500	113,285
36946	Components and parts for engine electrical equipment.....	114,726	148,518	131,412	129,402	130,601	103,325	76,053	70,929
36940	Engine electrical equipment, n.s.k.....	5,360	(30,851)	(31,628)	(21,322)	(14,077)	10,574	(NA)	(NA)
3699-	Electrical products, n.e.c.....	335,524	309,320	292,912	244,294	286,759	249,231	(NA)	(NA)
36992	Lamp bulb components (except glass blanks) and other electrical products.....	156,918	142,169	133,462	119,198	125,108	115,846	(NA)	(NA)
36996	Appliance wire and cord, and flexible cord sets <sup>3</sup> .....	167,664	159,215	146,659	90,129	149,809	127,069	(NA)	(NA)
36990	Electrical products, n.e.c., n.s.k.....	10,942	(7,936)	(12,791)	(34,967)	(11,842)	6,316	(NA)	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Source: Current Industrial Reports Series M36N, "Selected Electronics and Associated Products".

<sup>3</sup>Includes the total for product class 33576, appliance wire and cord and flexible cord sets, which is primary to industry 3357.



**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>			1963 <sup>1</sup>	1958
STORAGE BATTERIES, SLI TYPE (36911)			IGNITION HARNESS AND CABLE SETS (36941)			COMPONENTS AND PARTS FOR ENGINE ELECTRICAL EQUIPMENT (36946)—Continued		
United States, total....	360,885	278,960	United States, total...	58,899		North Central.....	77,286	( <sup>2</sup> )
New England.....	9,939	69,270	New England.....	2,064		Illinois.....	24,589	15,479
Middle Atlantic.....	63,081		Middle Atlantic.....	9,181		Michigan.....	4,982	( <sup>2</sup> )
East North Central.....	112,382	79,675	New York.....	7,026		South and West.....	5,915	( <sup>2</sup> )
Ohio.....	7,940	17,540	North Central.....	45,233				
Indiana.....	57,400	( <sup>2</sup> )	Illinois.....	2,512				
Illinois.....	15,155	13,795	Michigan.....	9,506				
West North Central.....	35,340	27,864	South and West.....	2,421				
Minnesota.....	7,832	6,588						
South Atlantic.....	39,803	( <sup>2</sup> )	BATTERY CHARGING GENERATORS (36942)					
Georgia.....	20,900	14,349	United States, total...	199,287	104,930	United States, total...	156,918	115,846
Florida.....	4,898	3,517	New England.....	2,369	5,332	New England.....	26,365	11,793
East South Central.....	17,281	( <sup>2</sup> )	Middle Atlantic.....	16,046		Connecticut.....	4,894	( <sup>2</sup> )
Tennessee.....	9,600	7,607	New York.....	6,388	( <sup>2</sup> )	Middle Atlantic.....	51,370	45,280
West South Central.....	27,228	( <sup>2</sup> )	East North Central.....	171,126	( <sup>2</sup> )	New York.....	17,029	15,024
Mountain.....	6,458	45,246	Illinois.....	1,713	95,269	New Jersey.....	25,224	( <sup>2</sup> )
Pacific.....	49,373		West North Central.....	1,586		Pennsylvania.....	9,117	( <sup>2</sup> )
California.....	43,752	35,808	South.....	5,807	4,329	East North Central.....	37,235	26,071
			West.....	2,353		Ohio.....	25,171	20,816
STORAGE BATTERIES, OTHER THAN SLI TYPE, INCLUDING PARTS FOR STORAGE BATTERIES (36912)			California.....	2,029	( <sup>2</sup> )	Indiana.....	5,839	( <sup>2</sup> )
United States, total....	139,095	78,511	SPARK PLUGS (36944)			Illinois.....	2,042	2,260
New England.....	16,829	45,130	United States, total...	143,845		Michigan.....	3,126	1,374
Middle Atlantic.....	68,177		East North Central.....	119,502	Wisconsin.....	1,057	( <sup>2</sup> )	
New Jersey.....	21,453	( <sup>2</sup> )	All other divisions.....	24,343		West North Central.....	7,403	32,792
North Central.....	46,546	29,367	OTHER COMPLETE ELECTRICAL EQUIPMENT FOR INTERNAL COMBUSTION ENGINES (36945)			Minnesota.....	3,017	
Illinois.....	20,358	( <sup>2</sup> )	United States, total...	217,123	133,797	South and West.....	34,545	
South.....	3,973	1,151	New England.....	17,806	47,110	APPLIANCE WIRE AND CORD, AND FLEXIBLE CORD SETS (33576 and 36996)		
West.....	3,570	2,863	Middle Atlantic.....	34,628		United States, total...	167,664	127,069
X-RAY EQUIPMENT, INCLUDING X-RAY TUBES, AND ELECTROTHERAPEUTIC APPARATUS (36930)			New York.....	28,125	16,845	New England.....	73,941	56,343
United States, total....	108,577	72,969	North Central.....	147,594	( <sup>2</sup> )	Massachusetts.....	26,255	( <sup>2</sup> )
New England.....	19,203	( <sup>2</sup> )	Illinois.....	6,944	5,362	Rhode Island.....	29,082	26,278
Middle Atlantic.....	14,495	13,286	Michigan.....	26,519	13,283	Middle Atlantic.....	30,874	22,992
New York.....	10,540	7,241	South and West.....	17,095	( <sup>2</sup> )	New York.....	20,728	17,117
North Central.....	59,742	( <sup>2</sup> )	COMPONENTS AND PARTS FOR ENGINE ELECTRICAL EQUIPMENT (36946)			New Jersey.....	4,797	4,011
Illinois.....	10,376	8,557	United States, total...	114,726	103,325	Pennsylvania.....	5,349	1,864
South.....	9,289	( <sup>2</sup> )	New England.....	9,517	29,500	East North Central.....	51,419	30,237
Pacific.....	5,848	( <sup>2</sup> )	Middle Atlantic.....	22,008		Indiana.....	17,756	8,804
			New York.....	17,230	19,090	Illinois.....	12,748	11,627
						Michigan.....	10,993	( <sup>2</sup> )
						West North Central.....	3,651	3,223
						South.....	1,308	( <sup>2</sup> )
						Pacific.....	6,471	12,716
						California.....	6,471	12,716

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million reported.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 36911, Massachusetts, Connecticut, New Jersey, Pennsylvania, Michigan, Wisconsin, Missouri, Nebraska, Kansas, Delaware, Virginia, North Carolina, Kentucky, Mississippi, Oklahoma, Texas, Colorado, and Oregon; 36912, Massachusetts, Connecticut, New York, Pennsylvania, Indiana, Minnesota, Missouri, North Carolina, Florida, and California; 36930, Massachusetts, Connecticut, New Jersey, Pennsylvania, Ohio, Wisconsin, Minnesota, Maryland, Florida, and California; 36941, Rhode Island, Pennsylvania, Ohio, Indiana, Missouri, and California; 36942, Connecticut, New Jersey, Ohio, Indiana, Michigan, Wisconsin, and Alabama; 36944, New Jersey, Pennsylvania, Ohio, Michigan, Iowa, and Alabama; 36945, Massachusetts, Connecticut, Pennsylvania, Ohio, Indiana, Wisconsin, Kentucky, Alabama, Mississippi, Texas, and California; 36946, Massachusetts, Connecticut, New Jersey, Ohio, Indiana, Wisconsin, Missouri, Kentucky, and Arizona; 36992, Maine, Massachusetts, Rhode Island, Missouri, North Carolina, Florida, Texas, and California; 33576 and 36996, Connecticut, Ohio, and Missouri.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3691.—STORAGE BATTERIES			
	Materials, parts, containers, and supplies, total.....		(X)	264,197	(X)	202,082
	Lead:					
333233	Refined unalloyed lead.....	Short tons.....	119,827	26,109	83,065	20,671
333234	Antimonial lead.....	...do.....	223,146	57,063	169,743	50,679
281634	Litharage.....	...do.....	87,706	20,959	95,204	24,720
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	129,291	(X)	98,725
976000	Materials, parts, containers, and supplies, n.s.k.....		(X)	30,775	(X)	7,287
			INDUSTRY 3692.—PRIMARY BATTERIES, DRY AND WET			
	Materials, parts, containers, and supplies, total.....		(X)	69,928	(X)	54,987
335607	Zinc and zinc-base alloy mill shapes and forms.....	Short tons.....	116,178	6,610	13,252	3,765
362406	Carbon and graphite electrodes and other carbon and graphite products for electrical use.....		(X)	2,467	(X)	3,328
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	60,090	(X)	45,003
976000	Materials, parts, containers, and supplies, n.s.k.....		(X)	761	(X)	2,891
			INDUSTRY 3694.—ENGINE ELECTRICAL EQUIPMENT			
	Materials, parts, containers, and supplies, total.....		(X)	356,386	(X)	220,373
	Mill shapes and forms:(except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	118,289	24,671	105,136	18,063
331012	Sheet and strip.....	...do.....	116,554	17,599	100,131	14,001
331017	Wire and wire products.....	...do.....	11,614	6,905	16,334	3,873
331013	Plates.....	...do.....	17,318	3,577	22,137	4,032
331019	All other carbon steel mill shapes and forms.....	...do.....				
331020	Alloy steel (except stainless).....	...do.....	1,701	509	3,852	1,460
331031	Stainless steel.....	...do.....	337	422	746	980
	Copper and copper-base alloy:					
335728	Bare wire for electrical conduction only.....	1,000 lbs.....	39,200	19,594	21,921	10,882
335790	Insulated wire and cable.....	1,000 lbs. copper content.	30,537	16,090	44,523	21,196
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	22,402	8,318	14,009	6,578
335123	Plate, sheet, and strip, including military cups and discs.....	...do.....	8,590	4,280		
335127	Pipe and tube.....	...do.....	88	56		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	...do.....	1,170	1,053	543	499
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	...do.....	631	478	2,499	1,428
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	...do.....	781	570		
	Primary metals:					
331051	Pig iron.....	Short tons.....	(D)	(D)	(NA)	(NA)
333401	Aluminum and aluminum-base alloy refinery shapes.....	...do.....	(D)	(D)	2,580	1,084
	Castings (rough and semifinished): <sup>2</sup>					
332011	Iron (gray and malleable).....	...do.....	15,646	5,454	11,601	2,999
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	10,122	5,160	1,225	1,329
336200	Copper and copper-base alloy.....	...do.....	493	280	254	193
	Bearings:					
356218	Ball.....	}	(X)	8,646	(X)	6,069
356228	Roller.....					
970099	All other materials and components, parts, containers and supplies consumed.....		(X)	225,597	(X)	116,994
976000	Materials, parts, containers, and supplies, n.s.k.....		(X)	7,127	(X)	8,713
			INDUSTRY 3699.—ELECTRICAL PRODUCTS, N.E.C.			
	Materials, parts, containers, and supplies, total.....		(X)	83,253	(NA)	(NA)
	Mill shapes and forms (except castings):					
331001	Carbon steel.....	Short tons.....	2,798	944	(NA)	(NA)
331020	Alloy steel (except stainless).....	...do.....	931	566	(NA)	(NA)
331031	Stainless steel.....	...do.....	488	454	(NA)	(NA)
335208	Aluminum and aluminum-base alloy.....	1,000 lbs.....	(D)	(D)	(NA)	(NA)

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3699.—ELECTRICAL PRODUCTS, N.E.C.—Continued			
	Mill shapes and forms (except castings)—Continued					
335728	Copper and copper-base alloy: Bare wire (for electrical conduction only).....	1,000 lbs. copper content..	459	892	(NA)	(NA)
335790	Insulated wire and cable.....	1,000 lbs. copper content..	14,056	13,337	(NA)	(NA)
335100	Brass mill shapes (rod, sheet, bar, etc.).....	1,000 lbs.....	6,950	3,065	(NA)	(NA)
367010	Electron tubes, except X-ray.....	.....	(D)	(D)	(NA)	(NA)
367408	Solid state semiconductors <sup>2</sup> .....	...do.....	1,655	1,286	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	45,462	(NA)	(NA)
976000	Materials, parts, containers, and supplies, n.s.k. <sup>1</sup> .....	.....	(X)	17,247	(NA)	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup> Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

<sup>2</sup> Does not include quantities produced and consumed in the same establishment.

**TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962**

Item	Storage batteries (SIC 3691)	Primary batteries, wet and dry (SIC 3692)	X-ray apparatus and tubes (SIC 3693)	Engine electrical equipment (SIC 3694)	Electrical products, n.e.c. (SIC 3699)
Total cost of purchased fuels and electric energy.....\$1,000..	7,143	1,273	675	6,082	1,704
Total cost of purchased fuels.....do....	2,302	505	181	2,262	589
Bituminous coal, lignite, and anthracite:					
Quantity.....1,000 short tons..	12	18	(S)	100	(S)
Cost.....\$1,000..	92	180	(S)	754	(S)
Coke and breeze:					
Quantity.....1,000 short tons..	(S)	-	-	-	-
Cost.....\$1,000..	(S)	-	-	-	-
Fuel oil (distillate and residual):					
Quantity.....1,000 barrels of 42 gallons..	170	13	(S)	77	57
Cost.....\$1,000..	496	57	(S)	265	221
Gas (natural, manufactured, still, blast furnace, and coke oven):					
Quantity.....million cu.ft..	1,799	377	58	2,096	410
Cost.....\$1,000..	1,025	235	49	1,217	239
Other fuels.....do....	642	(S)	52	(S)	114
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	413	57	30	345	68
Cost.....\$1,000..	4,841	768	494	3,820	1,115
Generated less sold.....million kw.-hrs..	(S)	-	-	(S)	-
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	97	19	15	173	30
Prime movers, total.....do....	17	(Z)	(Z)	15	1
Driving generators.....do....	6	(Z)	(Z)	5	(Z)
Not driving generators.....do....	11	(Z)	(Z)	10	1
Electric motors, total.....do....	81	18	15	166	28
Driven by purchased energy.....do....	80	18	15	158	28
Driven by energy generated at establishment.....do....	1	-	-	9	-
Aggregate horsepower per 100 production workers.....	774	302	393	452	341

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3691-	STORAGE BATTERIES										
	Entire industry.....	252	17,512	108,700	13,871	28,444	80,237	244,152	275,629	516,457	11,968
	Establishments with—										
	90% or more specialization..	241	16,832	105,889	13,310	27,397	78,089	236,885	266,897	501,230	11,606
36911	Storage batteries, SLI type (primary product class of estab.)	176	11,305	72,589	9,396	19,637	57,473	168,508	205,351	372,556	7,072
	Establishments with—										
	90% or more specialization....	163	9,960	64,641	8,332	17,630	51,950	154,921	183,312	337,106	6,590
	75-89% specialization.....	9	1,074	6,512	864	1,570	4,545	10,982	16,940	27,797	387
36912	Storage batteries, other than SLI type, including parts for storage batteries (primary product class of estab.).....	38	6,053	35,363	4,354	8,534	22,211	73,702	68,301	139,962	4,610
	Establishments with—										
	90% or more specialization....	27	5,465	33,117	3,842	7,623	20,398	66,054	60,855	125,661	4,427
3693-	X-RAY APPARATUS AND TUBES										
	Entire industry.....	58	6,236	43,796	3,430	6,921	20,124	86,534	56,916	143,706	2,132
	Establishments with—										
	90% or more specialization..	44	2,577	16,093	1,748	3,432	8,790	33,117	21,292	54,546	1,212
3694-	ENGINE ELECTRICAL EQUIPMENT										
	Entire industry.....	182	40,559	250,202	32,697	66,903	184,438	496,662	398,039	900,663	15,490
	Establishments with—										
	90% or more specialization..	147	28,382	182,179	23,057	47,772	135,348	359,173	248,377	610,724	11,843
	75-89% specialization.....	10	2,377	11,216	1,729	3,115	6,383	26,552	27,025	52,805	465
36941	Ignition harness and cable sets (primary product class of estab.)	25	1,764	7,123	1,421	2,814	4,854	11,056	22,130	34,637	395
	Establishments with—										
	90% or more specialization....	17	758	3,033	583	1,144	1,837	3,931	7,771	12,932	331
36945	Other complete electrical equipment for internal combustion engines (primary product class of estab.).....	34	6,648	30,170	5,315	10,777	20,962	55,593	45,927	101,941	1,432
	Establishments with—										
	90% or more specialization....	23	3,577	14,975	2,922	5,969	10,868	30,387	24,890	55,091	968
36946	Components and parts for engine electrical equipment (primary product class of estab.).....	25	6,125	29,996	4,481	8,536	18,068	62,635	48,758	113,776	2,615
	Establishments with—										
	90% or more specialization....	8	538	2,363	436	834	1,636	6,509	3,922	9,993	738
	75-89% specialization.....	5	701	3,129	636	1,244	2,347	8,142	12,621	20,125	285
3699	ELECTRICAL PRODUCTS, N.E.C.										
	Entire industry.....	350	10,923	51,215	8,492	16,496	33,355	101,221	88,970	190,038	3,271
	Establishments with—										
	90% or more specialization..	317	7,822	36,872	6,010	11,676	23,301	70,401	64,432	135,921	2,532
	75-89% specialization.....	11	1,384	5,820	1,188	2,339	4,400	11,376	10,741	21,748	229
36992	Lamp bulb components (except glass blanks) and electrical products (primary product class of estab.)	87	6,196	31,677	4,600	8,974	20,003	63,782	51,234	114,889	2,510
	Establishments with—										
	90% or more specialization....	71	4,326	22,236	3,106	6,081	13,038	43,089	35,931	79,720	1,950
36996	Appliance wire and cord, and flexible cord sets (manufactured from purchased materials)(primary product class of estab.).....	59	3,850	15,687	3,173	6,135	10,536	29,823	31,274	60,827	602
	Establishments with—										
	90% or more specialization....	43	2,383	9,566	1,999	3,842	6,612	16,184	18,502	34,764	390
	75-89% specialization.....	11	817	3,425	665	1,362	2,390	5,806	6,101	11,462	101

n.e.c. Not elsewhere classified.

TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3691.—STORAGE BATTERIES							
Nonferrous foundry (except die casting).....	9	7	1	1	59	(D)	(D)	(D)
Nonferrous die casting.....	15	11	4	-	43	13	30	-
Heat treating of metals.....	2	2	-	-	(D)	(D)	-	-
Machine shop.....	18	6	8	4	236	14	76	146
Tool and die shop.....	3	2	1	-	(D)	(D)	(D)	-
Stamping, blanking and forming of metals.....	5	4	1	-	23	(D)	(D)	-
Painting, lacquering and enameling on metals.....	10	10	-	-	14	14	-	-
	INDUSTRY 3692.—PRIMARY BATTERIES, DRY AND WET							
Nonferrous foundry (except die casting).....	1	-	1	-	(D)	-	(D)	-
Heat treating of metals.....	1	-	1	-	(D)	-	(D)	-
Machine shop.....	4	4	-	-	9	9	-	-
Tool and die shop.....	4	-	4	-	33	-	33	-
Stamping, blanking and forming of metals.....	11	6	5	-	63	13	50	-
Painting, lacquering and enameling on metals.....	2	2	-	-	(D)	(D)	-	-
	INDUSTRY 3693.—X-RAY APPARATUS AND TUBES							
Machine shop.....	30	13	9	8	485	23	94	368
Tool and die shop.....	11	7	2	2	75	11	(D)	(D)
Plate or structural fabrication.....	4	2	-	2	(D)	(D)	-	(D)
Stamping, blanking and forming of metals.....	18	8	5	5	241	14	39	188
Painting, lacquering and enameling on metals.....	20	14	3	3	161	28	43	90
	INDUSTRY 3694.—ENGINE ELECTRICAL EQUIPMENT							
Ferrous foundry.....	2	1	-	1	(D)	(D)	-	(D)
Nonferrous die casting.....	7	-	4	3	198	-	47	151
Electroplating and other plating.....	19	11	7	1	136	24	(D)	(D)
Galvanizing and other hot dip coating.....	6	5	-	1	30	(D)	-	(D)
Heat treating of metals.....	14	6	6	2	143	(D)	58	(D)
Automatic screw machine department.....	26	10	9	7	618	23	84	511
Machine shop.....	41	16	12	13	907	31	120	756
Tool and die shop.....	40	14	17	9	1,554	28	144	1,382
Stamping, blanking and forming of metals.....	40	15	16	9	1,509	28	138	1,343
Painting, lacquering and enameling on metals.....	31	28	2	1	86	48	(D)	(D)
	INDUSTRY 3699.—ELECTRICAL PRODUCTS, N.E.C.							
Machine shop.....	29	16	10	3	208	29	94	85
Stamping, blanking and forming of metals.....	23	10	8	5	401	13	92	296
Painting, lacquering and enameling on metals.....	22	16	5	1	98	28	(D)	(D)

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

Item	Industry				
	3691	3692	3693	3694	3699
Total number of establishments in the industry.....	252	46	58	182	350
Number of establishments which reported one or more of the specified operations.....	43	17	32	72	45
Percent of industry production workers in these establishments.....	40-45	45-50	85-90	85-90	45-50
Number of establishments which reported "none" of the operations apply.....	75	18	6	36	66
Percent of industry production workers in these establishments.....	25-30	35-40	0-5	0-5	30-35
Percent of industry production workers in establishments which completed the metalworking operations inquiry.....	65-70	85-90	90-95	90-95	75-80

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.





## Transportation Equipment

- 37A Motor vehicles and equipment
- 37B Aircraft and parts
- 37C Ship and boat building, railroad and miscellaneous transportation equipment

This major group covers establishments primarily engaged in manufacturing equipment for transportation of passengers and cargo by land, air, and water. Important products produced by establishments classified in this major group include motor vehicles, aircraft, ships, boats, railroad equipment, and miscellaneous transportation equipment such as motorcycles, bicycles, etc.

The Standard Industrial Classification System (1957 edition) includes, in Industry Group 372, guided missile components, not elsewhere classified, and receipts from research and development on aircraft parts, guided missile components, not elsewhere classified, and airplane and missile engines.

Certain products which are sometimes associated with or considered a part of transportation

equipment are classified in other major groups in the Standard Industrial Classification System. For example, wheeltypes tractors, track-laying tractors, mining cars, and industrial trucks, tractors, trailers, and stackers are in Major Group 35; and ignition systems and storage batteries, in Major Group 36.

Railroad shops are not classified as manufacturing by the Standard Industrial Classification System and, therefore, such activities are not included in employment and other establishment totals for Major Group 37 or Industry Group 374. However, such shops were requested to report the quantity and value of locomotives and railroad cars built or rebuilt. Data on railroad cars built or rebuilt in railroad shops are included only in table 6A-2 for Industry 3742.



# TRANSPORTATION EQUIPMENT: MAJOR GROUP 37

Value Added by Manufacture by State: 1963

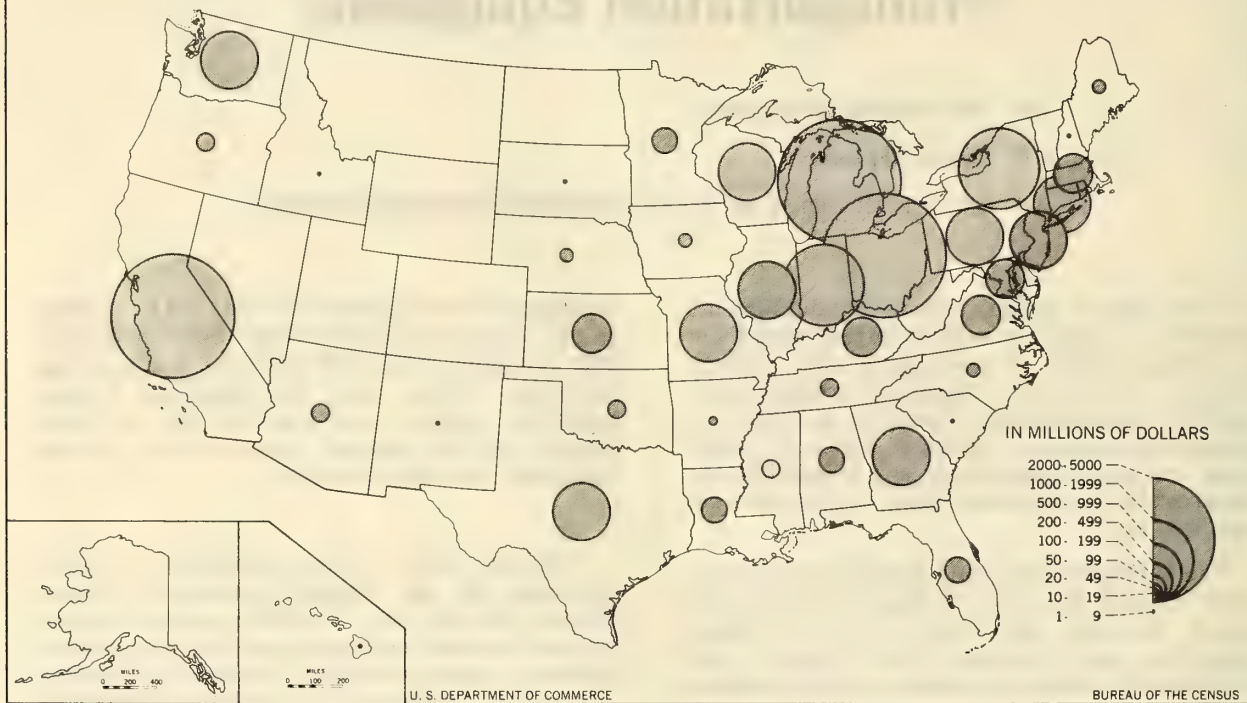


TABLE 1. General Statistics: 1963 and Earlier Years

Year and item	Establishments		All employees <sup>1</sup>		Production workers			Value added by manufacture, adjusted <sup>2</sup>	Cost of materials <sup>3</sup>	Value of shipments <sup>3</sup>	Capital expenditures, new <sup>4</sup>
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
<b>ALL MANUFACTURING ESTABLISHMENTS, TOTAL:</b>											
1963 <sup>6</sup> . . . . .	7 410	3 022	1 689 737	12 735 609	1 150 082	2 450 150	7 731 192	22 765 674	32 725 442	55 428 194	1 022 004
1958 . . . . .	6 810	2 788	1 641 860	9 793 175	1 138 559	2 274 891	6 037 341	15 315 289	(NA)	3 828 901	629 621
1954 . . . . .	(NA)	(NA)	1 765 891	8 697 898	1 327 772	2 710 939	6 006 009	13 428 014	(NA)	(NA)	924 898
<b>ADMINISTRATIVE AND AUXILIARY UNITS:</b>											
1963 <sup>6</sup> . . . . .	214	154	88 579	877 369	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1958 <sup>6</sup> . . . . .	176	114	79 431	607 479	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1954 <sup>6</sup> . . . . .	(NA)	(NA)	60 390	397 795	(X)	(X)	(X)	(X)	(X)	(X)	(X)
<b>OPERATING MANUFACTURING ESTABLISHMENTS:</b>											
1963 <sup>6</sup> . . . . .	7 196	2 868	1 601 158	11 858 240	1 150 082	2 450 150	7 731 192	22 765 674	32 725 442	55 428 194	1 022 004
1958 <sup>6</sup> . . . . .	6 634	2 674	1 562 429	9 185 696	1 138 559	2 274 891	6 037 341	15 315 289	(NA)	38 288 301	629 621
1954 . . . . .	5 349	2 318	1 705 501	8 300 103	1 327 772	2 710 939	6 006 009	13 428 014	(NA)	(NA)	924 898
<b>OPERATING MANUFACTURING ESTABLISHMENTS:</b>											
1962 <sup>6 7</sup> . . . . .	(NA)	(NA)	1 600 670	11 333 596	1 128 764	2 367 196	7 169 035	20 871 844	30 621 892	51 341 608	956 300
1961 <sup>6 7</sup> . . . . .	(NA)	(NA)	1 505 454	10 112 640	1 055 777	2 156 737	6 313 391	17 432 501	26 042 266	43 549 317	720 132
1960 <sup>6 7</sup> . . . . .	(NA)	(NA)	1 592 591	10 360 424	1 160 697	2 392 942	6 841 476	18 368 472	(NA)	(NA)	730 913
1959 <sup>6 7</sup> . . . . .	(NA)	(NA)	1 615 442	10 254 416	1 172 093	2 453 355	6 696 070	19 084 188	(NA)	(NA)	723 111
1957 <sup>7</sup> . . . . .	(NA)	(NA)	1 901 248	10 490 748	1 402 026	2 845 103	7 177 630	19 491 708	(NA)	(NA)	1 142 383
1956 <sup>7</sup> . . . . .	(NA)	(NA)	1 792 676	9 706 567	1 357 987	2 793 344	6 743 150	16 633 346	(NA)	(NA)	1 437 361
1955 <sup>7</sup> . . . . .	(NA)	(NA)	1 912 629	9 407 064	1 417 730	2 958 874	6 842 467	17 070 861	(NA)	(NA)	848 832
1953 <sup>7</sup> . . . . .	(NA)	(NA)	1 911 706	8 986 838	1 529 924	3 154 956	6 731 078	14 534 323	(NA)	(NA)	709 892
1952 <sup>7</sup> . . . . .	(NA)	(NA)	1 650 203	7 423 348	1 317 374	2 749 640	5 585 444	12 042 185	(NA)	(NA)	(NA)
1951 <sup>7</sup> . . . . .	3 393	(NA)	1 468 509	6 066 748	1 199 628	2 448 100	4 672 343	9 788 928	(NA)	(NA)	599 519
1950 <sup>7</sup> . . . . .	2 780	(NA)	1 218 417	4 679 459	1 005 883	2 060 313	3 656 460	8 546 828	(NA)	(NA)	343 428
1949 <sup>7</sup> . . . . .	(NA)	(NA)	1 139 983	4 098 421	935 611	1 873 124	3 163 348	7 054 449	(NA)	(NA)	263 712
1947 <sup>8</sup> . . . . .	3 703	(NA)	1 174 498	3 694 932	981 103	1 961 398	2 920 813	5 841 722	(NA)	(NA)	354 974
1939 <sup>8</sup> . . . . .	2 012	(NA)	(NA)	(NA)	544 553	(NA)	867 024	1 772 573	(NA)	(NA)	(NA)
1937 <sup>8</sup> . . . . .	1 958	(NA)	(NA)	(NA)	662 218	(NA)	1 028 650	1 986 497	(NA)	(NA)	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The figures for 1939 through 1963 include data for employees of manufacturing establishments who are engaged in distribution and construction work. The extent to which data for such employees are included in the figures for earlier years is not known.

<sup>2</sup>For the period 1954 to 1963, figures represent adjusted value added by manufacture and for earlier years, unadjusted value added. Adjusted value added is equal to value of shipments (including resales of finished products) less cost of finished products, materials, supplies, fuel, electric energy and contract work, plus the net change in the value of finished products and work-in-process inventories between the beginning and end of the year, without adjustment for price changes. Unadjusted value added is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. See Introduction, "Value Added by Manufacture."

<sup>3</sup>The total value of shipments and cost of materials for industry groups (2- and 3-digit) includes extensive duplication arising from shipments between establishments in the same industry classification. For a more complete explanation, see Introduction.

<sup>4</sup>The figures for 1958 to 1963 include expenditures for plants under construction and not yet in operation.

<sup>5</sup>In addition to data for operating establishments, figures for employment and payroll for manufacturing central administrative offices and auxiliary units are shown for the

years 1949 to 1953 in the annual survey of manufactures volumes. Data for these units are not available for the years 1955 to 1957, 1959 to 1962, or prior to 1949.

<sup>6</sup>Figures for 1958 to 1963 for operating manufacturing establishments are not strictly comparable with prior years due to revisions of the Standard Industrial Classification System. Prior to 1958, establishments primarily engaged in the manufacture of truck and bus bearings, convertible tops for automobiles, rebuilt automotive parts, and aircraft and related engine and power take-off gears, were excluded from these data. Establishments primarily engaged in the manufacture of parachutes are included in data prior to 1958.

<sup>7</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, consequently, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>8</sup>The figures for 1939, but not for 1937, have been revised for comparability with the figures for later years. The principal revision is the exclusion of data for railroad repair shops reclassified as nonmanufacturing establishments. Value added by manufacture for 1939 on a basis strictly comparable with 1937 was \$1,794 million.

<sup>9</sup>The figures for 1935 and earlier years are not sufficiently comparable with those for later years to be shown in this table because the earlier figures exclude data for establishments primarily engaged in the manufacture of aircraft engines and for a number of large establishments classified prior to 1937 in other industry groups.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
		(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(number)	(\$1,000)
37	TRANSPORTATION EQUIPMENT, TOTAL . . .	7 196	2 868	1 601 158	11 858 240	1 150 082	2 450 150	7 731 192	22 765 674	1 022 004	1 562 429	15 315 289
	NORTHEAST . . . . .	1 460	580	321 164	2 342 975	219 593	464 712	1 434 184	3 980 493	171 630	310 113	2 937 160
	NEW ENGLAND . . . . .	476	161	113 162	810 809	73 901	160 120	463 320	1 237 523	48 766	99 793	886 531
	MAINE . . . . .	76	17	4 355	24 315	3 645	7 257	19 446	40 088	1 013	5 324	42 901
	NEW HAMPSHIRE . . . . .	11	1	99	438	88	171	373	683	35	65	670
	VERMONT . . . . .	8	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	MASSACHUSETTS . . . . .	188	58	19 227	141 374	12 189	25 748	80 958	247 919	6 792	30 933	307 585
	RHODE ISLAND . . . . .	37	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	CONNECTICUT . . . . .	156	67	85 301	620 089	55 347	121 124	349 176	906 774	39 183	70 612	586 552
	MIDDLE ATLANTIC . . . . .	984	419	208 002	1 532 166	145 692	304 592	970 864	2 742 970	122 864	210 320	2 050 629
	NEW YORK . . . . .	441	188	102 192	788 102	72 641	154 733	507 320	1 389 645	66 212	104 735	959 939
	NEW JERSEY . . . . .	259	83	39 471	278 873	28 258	59 387	189 185	620 314	25 567	50 959	575 378
	PENNSYLVANIA . . . . .	284	148	66 339	465 191	44 793	90 472	274 359	733 011	31 085	54 626	515 312
	NORTH CENTRAL . . . . .	2 184	1 093	730 617	5 449 872	574 994	1 244 620	4 006 699	11 675 934	558 102	677 139	7 103 023
	EAST NORTH CENTRAL . . . . .	1 707	903	623 597	4 680 552	495 904	1 074 669	3 504 774	10 037 666	489 764	565 327	5 997 224
	OHIO . . . . .	401	230	166 485	1 243 587	124 904	266 059	866 226	2 489 887	94 700	151 552	1 566 867
	INDIANA . . . . .	298	180	91 203	631 077	70 937	144 215	451 029	1 119 585	51 321	79 749	790 457
	ILLINOIS . . . . .	280	126	40 819	284 558	31 653	67 073	202 451	601 088	24 899	44 673	535 606
	MICHIGAN . . . . .	594	301	282 115	2 229 495	231 118	520 096	1 741 722	5 091 546	294 544	250 754	2 729 855
	WISCONSIN . . . . .	134	66	42 975	291 835	37 292	77 226	243 346	734 560	24 514	32 681	357 798
	WEST NORTH CENTRAL . . . . .	477	190	107 020	769 320	79 090	169 951	501 925	1 638 268	68 338	111 812	1 105 799
	MINNESOTA . . . . .	111	37	7 976	54 851	6 548	13 930	42 507	130 358	3 148	8 739	97 821
	IOWA . . . . .	67	29	2 644	14 068	2 108	4 218	9 349	26 781	1 180	3 883	30 983
	MISSOURI . . . . .	149	68	58 206	436 006	41 084	89 498	270 314	998 328	54 749	52 012	563 922
	NORTH DAKOTA . . . . .	4	-	11	41	8	16	30	134	8	40	252
	SOUTH DAKOTA . . . . .	12	2	172	611	150	301	499	1 899	145	184	1 168
	NEBRASKA . . . . .	30	15	3 401	17 636	2 691	5 688	11 843	34 095	711	2 064	16 724
	KANSAS . . . . .	104	39	34 610	246 107	26 501	56 300	167 383	446 673	8 397	44 890	394 929
	SOUTH . . . . .	1 694	583	231 194	1 554 810	168 823	353 674	1 015 144	2 862 849	96 038	226 811	1 968 720
	SOUTH ATLANTIC . . . . .	841	261	118 813	822 160	87 779	184 660	557 471	1 544 177	45 557	104 959	943 692
	DELAWARE . . . . .	12	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	MARYLAND . . . . .	129	41	31 671	234 291	20 898	43 065	136 696	403 388	10 537	43 723	394 831
	DISTRICT OF COLUMBIA . . . . .	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	VIRGINIA . . . . .	93	31	25 432	173 062	22 732	46 208	149 402	263 314	6 766	16 995	133 599
	WEST VIRGINIA . . . . .	10	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	NORTH CAROLINA . . . . .	93	29	4 742	22 383	3 659	7 727	16 040	39 026	2 793	2 344	15 791
	SOUTH CAROLINA . . . . .	31	10	932	4 090	798	1 682	3 216	7 439	424	621	3 265
	GEORGIA . . . . .	114	50	30 357	224 514	21 227	46 793	143 451	514 266	11 610	24 630	256 141
	FLORIDA . . . . .	358	88	16 737	100 805	11 319	23 562	59 140	134 286	7 515	9 647	56 442
	EAST SOUTH CENTRAL . . . . .	218	110	41 008	234 557	32 141	64 921	161 120	507 424	19 297	38 780	289 685
	KENTUCKY . . . . .	40	24	5 674	39 712	4 583	10 572	29 861	209 745	4 749	4 594	71 593
	TENNESSEE . . . . .	76	40	11 053	53 076	8 976	17 544	35 134	94 890	8 158	5 617	43 658
	ALABAMA . . . . .	62	28	15 977	93 877	11 927	23 989	62 836	142 419	3 248	17 229	104 147
	MISSISSIPPI . . . . .	40	18	8 304	47 892	6 655	12 816	33 289	60 370	3 142	11 340	70 287
	WEST SOUTH CENTRAL . . . . .	635	212	71 373	498 093	48 903	104 093	296 553	811 248	31 184	83 072	735 343
	ARKANSAS . . . . .	50	19	2 146	8 729	1 852	3 625	6 646	16 006	848	1 076	6 092
	LOUISIANA . . . . .	114	36	11 327	77 957	9 332	21 963	67 888	112 083	2 968	6 987	49 437
	OKLAHOMA . . . . .	88	26	7 801	49 710	5 903	11 961	31 052	67 542	7 852	10 162	71 496
	TEXAS . . . . .	383	131	50 099	361 697	31 816	66 544	190 967	615 617	19 516	64 847	608 318
	WEST . . . . .	1 858	612	317 822	2 508 239	185 265	385 096	1 269 037	4 241 797	195 885	348 141	3 302 825
	MOUNTAIN . . . . .	223	63	36 400	281 349	20 867	42 925	155 206	516 038	13 488	9 855	96 411
	MONTANA . . . . .	9	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	IDAHO . . . . .	26	9	812	4 204	684	1 366	3 035	5 394	885	235	1 046
	WYOMING . . . . .	3	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	COLORADO . . . . .	66	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	NEW MEXICO . . . . .	12	2	128	727	103	205	569	1 316	89	62	320
	ARIZONA . . . . .	61	17	5 784	46 590	4 577	9 640	35 516	78 398	2 237	5 464	61 984
	UTAH . . . . .	41	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	NEVADA . . . . .	5	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	PACIFIC . . . . .	1 636	550	281 483	2 227 059	164 455	342 277	1 113 978	3 726 272	182 397	338 286	3 186 371
	WASHINGTON . . . . .	204	48	33 565	259 009	20 915	41 948	135 162	539 866	22 272	69 744	626 045
	OREGON . . . . .	96	26	5 055	30 074	4 037	7 644	22 764	50 745	3 257	3 849	33 851
	CALIFORNIA . . . . .	1 317	472	203 860	1 645 109	125 605	262 840	867 840	2 683 680	156 737	264 550	2 525 462
	ALASKA . . . . .	11	1	65	377	55	109	326	480	43	33	278
	HAWAII . . . . .	7	2	101	585	81	146	444	990	42	110	734
371	MOTOR VEHICLES AND EQUIPMENT, TOTAL . . .	2 765	1 222	693 821	5 193 447	571 026	1 264 399	4 069 698	12 780 577	655 374	581 715	6 781 258
	NORTHEAST . . . . .	475	191	79 150	581 963	63 158	139 693	441 961	1 347 484	70 014	74 731	851 790
	NEW ENGLAND . . . . .	104	32	7 232	44 431	5 852	12 975	33 369	114 110	4 646	5 866	52 849
	MASSACHUSETTS . . . . .	59	21	3 331	23 075	2 679	6 414	12 327	80 485	2 782	2 928	26 047
	RHODE ISLAND . . . . .	10	4	613	2 770	525	1 191	2 313	5 221	(D)	432	3 520

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963								1958		
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
371	MOTOR VEHICLES AND EQUIPMENT—CONT. MIDDLE ATLANTIC NEW YORK . . . . .	370 146	158 62	71 401 39 648	533 648 303 065	57 306 32 086	126 718 72 424	408 592 236 605	1 233 374 635 612	65 368 38 671	68 865 35 163	798 941 371 202
	NORTH CENTRAL . . . . .	1 168	647	529 614	4 022 760	439 064	967 616	3 180 452	9 533 328	480 124	439 593	5 073 752
	EAST NORTH CENTRAL . . . . .	955	553	495 798	3 769 229	411 419	903 748	2 984 663	8 638 239	440 069	413 213	4 638 679
	OHIO . . . . .	224	145	112 368	834 396	93 132	201 685	662 825	1 895 276	79 589	89 156	985 589
	INDIANA . . . . .	135	83	60 226	412 835	49 528	100 428	318 791	775 522	35 150	46 078	522 329
	ILLINOIS . . . . .	180	86	22 409	158 056	18 467	40 660	120 912	373 887	14 726	22 011	248 217
	MICHIGAN . . . . .	363	210	263 074	2 099 724	217 276	492 374	1 659 236	4 900 959	287 747	229 643	2 575 820
	WISCONSIN . . . . .	53	29	37 721	264 218	33 016	68 601	222 899	692 595	22 857	26 325	306 724
	WEST NORTH CENTRAL . . . . .	213	94	33 816	253 531	27 645	63 868	195 789	895 089	40 055	26 380	435 073
	IOWA . . . . .	36	15	1 292	6 599	1 041	2 172	4 671	14 430	854	1 200	9 160
	MISSOURI . . . . .	86	46	23 467	177 190	19 477	44 183	139 193	632 520	(D)	17 857	316 361
	SOUTH . . . . .	549	203	52 750	356 762	42 982	99 782	271 810	1 250 048	44 419	39 663	525 744
	SOUTH ATLANTIC . . . . .	223	74	29 353	217 555	23 884	56 606	167 616	750 955	22 595	22 601	319 085
	NORTH CAROLINA . . . . .	35	11	1 987	9 248	1 621	3 505	6 704	18 893	1 402	1 418	10 378
	SOUTH CAROLINA . . . . .	6	3	234	1 123	200	428	922	2 589	59	201	1 675
	FLORIDA . . . . .	61	9	843	3 699	691	1 506	2 785	5 291	1 737	494	3 292
	EAST SOUTH CENTRAL . . . . .	108	60	12 717	71 046	10 349	22 683	52 433	280 120	10 485	9 547	110 257
	TENNESSEE . . . . .	41	23	4 107	17 945	3 392	7 123	12 947	40 392	4 447	2 804	23 585
	WEST SOUTH CENTRAL . . . . .	218	69	10 680	68 161	8 749	20 493	51 761	218 973	11 339	7 515	96 402
	ARKANSAS . . . . .	23	6	682	2 692	605	1 229	2 086	6 221	449	337	1 487
	TEXAS . . . . .	144	47	7 917	54 786	6 435	15 576	41 836	189 947	5 781	6 004	84 935
	WEST . . . . .	574	182	32 030	230 804	25 268	55 907	172 394	637 623	60 419	27 503	326 543
	MOUNTAIN . . . . .	85	20	1 641	8 903	1 273	2 508	6 116	14 734	1 797	994	8 373
	COLORADO . . . . .	29	13	1 043	5 821	803	1 581	3 932	9 717	869	635	6 436
	NEW MEXICO . . . . .	7	2	115	669	91	181	517	1 233	81	(D)	(D)
	UTAH . . . . .	12	2	192	1 067	134	267	686	1 526	228	166	883
	PACIFIC . . . . .	489	162	30 389	221 901	23 995	53 399	166 278	622 889	58 622	26 509	318 170
	WASHINGTON . . . . .	31	11	1 891	12 457	1 457	2 880	8 977	20 797	760	1 394	12 569
	CALIFORNIA . . . . .	418	137	27 000	200 197	21 383	48 403	150 617	583 424	56 443	24 338	297 569
372	AIRCRAFT AND PARTS: TOTAL . . . . .	1 346	715	679 385	5 253 685	390 295	810 454	2 585 997	7 867 349	294 163	765 482	6 924 338
	NORTHEAST . . . . .	326	197	175 194	1 305 481	103 794	218 906	672 842	1 976 301	80 923	165 197	1 496 672
	NEW ENGLAND . . . . .	121	75	78 985	563 930	48 453	104 454	307 322	860 493	35 880	69 015	584 916
	MASSACHUSETTS . . . . .	26	14	9 610	75 113	5 388	11 233	37 258	111 070	3 152	(D)	(D)
	CONNECTICUT . . . . .	81	49	65 193	462 726	40 579	87 706	256 207	706 556	31 467	(D)	(D)
	MIDDLE ATLANTIC . . . . .	205	122	96 209	741 551	55 341	114 452	365 520	1 115 808	45 043	96 182	911 756
	NEW YORK . . . . .	115	68	52 694	427 567	32 612	66 960	226 722	665 347	24 781	57 116	499 758
	NORTH CENTRAL . . . . .	302	175	149 115	1 117 213	94 179	193 434	598 213	1 601 129	58 245	189 567	1 680 749
	EAST NORTH CENTRAL . . . . .	228	139	85 036	648 128	50 244	102 455	327 618	938 698	32 382	111 121	1 066 553
	OHIO . . . . .	83	49	47 782	370 099	26 505	53 750	172 573	528 979	13 539	60 674	570 621
	INDIANA . . . . .	28	21	20 519	154 610	12 895	26 570	85 038	235 042	11 138	25 804	219 294
	ILLINOIS . . . . .	24	17	6 282	43 924	4 058	8 254	25 032	63 531	3 395	11 041	171 816
	MICHIGAN . . . . .	89	48	10 099	77 260	6 500	13 286	43 329	107 699	4 046	12 403	90 358
	WISCONSIN . . . . .	4	4	354	2 235	286	595	1 646	3 447	264	1 199	14 464
	WEST NORTH CENTRAL . . . . .	74	36	64 079	469 085	43 935	90 979	270 595	662 431	25 863	78 446	614 196
	MINNESOTA . . . . .	10	8	3 517	23 841	3 088	5 916	19 844	30 591	437	4 187	28 443
	SOUTH . . . . .	156	98	99 282	733 304	56 580	116 748	358 443	964 810	27 967	114 682	955 198
	SOUTH ATLANTIC . . . . .	73	45	43 789	326 920	23 469	48 500	153 581	414 218	12 541	(D)	(D)
	MARYLAND . . . . .	12	11	14 315	111 418	6 679	13 229	41 205	141 237	3 443	(D)	(D)
	VIRGINIA . . . . .	4	3	1 488	9 606	747	1 526	3 924	14 622	1 013	(D)	(D)
	NORTH CAROLINA . . . . .	5	4	1 489	8 518	926	1 968	5 662	12 127	902	226	1 439
	EAST SOUTH CENTRAL . . . . .	12	12	12 800	76 531	8 346	16 489	41 150	107 982	1 519	(D)	(D)
	WEST SOUTH CENTRAL . . . . .	71	41	42 693	329 853	24 765	51 759	163 712	442 610	13 907	(D)	(D)
	TEXAS . . . . .	53	31	34 341	264 869	18 852	38 353	116 747	362 289	10 908	50 544	469 290
	WEST . . . . .	562	245	255 744	2 096 609	134 626	280 389	952 049	3 322 699	126 857	296 036	2 771 675
	MOUNTAIN . . . . .	37	21	33 110	264 915	18 217	37 714	143 457	487 459	10 799	8 145	104 064
	ARIZONA . . . . .	21	11	5 315	44 468	4 180	8 858	33 937	75 159	1 792	(D)	(D)
	PACIFIC . . . . .	525	224	222 634	1 832 694	116 409	242 675	808 592	2 835 240	116 058	287 891	2 687 654

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963								1958		
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
		(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(number)	(\$1,000)
373	SHIP AND BOAT BUILDING, TOTAL . . . . .	1 960	468	139 510	898 439	117 394	235 523	701 693	1 192 749	37 949	144 561	1 071 822
	NORTHEAST . . . . .	530	136	46 013	327 261	36 260	75 509	227 154	422 610	12 363	49 589	427 340
	NEW ENGLAND . . . . .	229	48	25 768	195 286	18 772	41 303	118 763	249 035	7 967	23 178	237 965
	MASSACHUSETTS . . . . .	93	21	5 794	40 653	3 735	7 380	24 530	52 327	802	(D)	(D)
	MIDDLE ATLANTIC . . . . .	301	88	20 245	131 975	17 488	34 206	108 391	173 575	4 396	26 411	189 375
	NEW YORK . . . . .	154	46	5 477	33 353	4 588	8 853	26 818	48 912	1 241	8 203	55 626
	NEW JERSEY . . . . .	120	31	9 191	62 854	8 293	16 015	54 199	82 775	2 192	13 168	98 248
	PENNSYLVANIA . . . . .	27	11	5 577	35 768	4 617	9 338	27 374	41 888	963	5 040	35 501
	NORTH CENTRAL . . . . .	266	70	9 616	50 344	8 076	16 221	39 629	75 856	3 146	13 732	92 338
	EAST NORTH CENTRAL . . . . .	196	55	8 442	45 446	7 122	14 260	35 927	66 958	2 712	(D)	(D)
	INDIANA . . . . .	29	12	1 585	8 989	1 285	2 659	6 604	13 408	543	(D)	(D)
	ILLINOIS . . . . .	28	4	606	3 696	434	975	2 578	4 771	938	(D)	(D)
	WISCONSIN . . . . .	48	15	2 409	12 317	2 057	4 145	9 701	19 451	513	2 934	21 699
	WEST NORTH CENTRAL . . . . .	70	15	1 174	4 898	954	1 961	3 702	8 898	434	(D)	(D)
	MISSOURI . . . . .	19	5	309	1 214	255	513	965	3 210	122	1 118	9 377
	SOUTH . . . . .	744	186	65 153	398 824	57 059	113 079	333 925	515 129	17 900	63 699	440 823
	SOUTH ATLANTIC . . . . .	448	100	40 756	255 246	36 230	71 275	219 311	333 010	8 163	36 371	255 018
	NORTH CAROLINA . . . . .	40	8	765	3 185	696	1 520	2 658	5 124	372	(D)	(D)
	GEORGIA . . . . .	21	4	1 062	4 762	955	1 672	3 909	6 675	235	1 135	8 598
	FLORIDA . . . . .	211	44	6 013	30 632	5 122	10 423	24 646	43 007	1 988	6 349	33 985
	EAST SOUTH CENTRAL . . . . .	72	23	9 811	57 283	8 373	15 703	44 095	60 800	5 177	14 219	94 029
	KENTUCKY . . . . .	7	3	325	1 502	299	667	1 334	2 153	65	(D)	(D)
	ALABAMA . . . . .	24	6	2 950	16 550	2 741	5 088	14 790	19 874	869	3 575	28 976
	WEST SOUTH CENTRAL . . . . .	224	63	14 586	86 295	12 456	26 101	70 519	121 319	4 560	13 109	91 776
	ARKANSAS . . . . .	13	6	472	2 196	376	765	1 483	2 242	138	(D)	(D)
	LOUISIANA . . . . .	91	27	8 038	49 479	7 049	15 719	42 327	71 165	2 481	6 465	44 831
	TEXAS . . . . .	108	29	6 022	34 445	4 982	9 512	26 552	47 600	1 921	6 210	44 307
	WEST . . . . .	419	75	18 694	121 913	15 965	30 640	100 888	179 333	4 583	17 422	140 363
	MOUNTAIN . . . . .	22	1	111	491	93	196	384	832	61	103	777
	PACIFIC . . . . .	397	74	18 583	121 422	15 872	30 444	100 504	178 501	4 522	17 319	139 586
	OREGON . . . . .	39	4	2 115	12 563	1 690	3 075	9 617	20 888	392	(D)	(D)
	CALIFORNIA . . . . .	224	47	11 128	74 034	9 471	18 141	60 422	109 358	1 709	10 990	88 628
374	RAILROAD EQUIPMENT, TOTAL . . . . .	102	70	45 079	301 695	34 902	68 049	217 540	541 471	18 072	39 591	319 662
	NORTHEAST . . . . .	31	20	16 849	109 925	12 753	23 884	77 085	189 323	6 509	18 162	142 773
	MIDDLE ATLANTIC . . . . .	31	20	16 849	109 925	12 753	23 884	77 085	189 323	6 509	17 129	138 655
	NEW YORK . . . . .	6	5	3 246	19 321	2 412	4 688	13 654	30 305	1 332	(D)	(D)
	NORTH CENTRAL . . . . .	59	40	22 952	157 213	17 892	35 635	114 239	282 702	9 333	18 335	163 835
	INDIANA . . . . .	6	4	3 605	25 392	2 902	6 042	19 816	41 364	1 867	3 165	12 380
	ILLINOIS . . . . .	25	14	10 418	72 372	7 762	15 364	49 156	147 133	(D)	9 672	101 072
	SOUTH AND WEST . . . . .	12	10	5 278	34 557	4 257	8 530	26 216	69 446	2 230	3 094	13 054
375	MOTORCYCLES, BICYCLES, & PARTS, TOTAL <sup>1</sup>	88	33	9 662	48 425	7 912	15 152	34 398	82 245	3 152	7 578	52 125
379	TRANSPORTATION EQUIPMENT, NEC, TOTAL	935	360	33 701	162 549	28 553	56 573	121 866	301 283	13 294	23 478	165 898
	NORTHEAST . . . . .	80	28	2 540	12 089	2 142	4 111	8 934	24 323	1 504	973	9 488
	NEW JERSEY . . . . .	5	3	111	614	96	173	444	887	109	(D)	(D)
	NORTH CENTRAL . . . . .	364	149	15 290	79 713	12 724	25 722	58 425	147 343	5 876	12 262	95 144
	EAST NORTH CENTRAL . . . . .	253	112	11 430	62 399	9 453	19 140	45 034	111 015	4 752	10 086	76 715
	OHIO . . . . .	40	15	1 422	7 293	1 167	2 395	5 178	12 901	342	721	(D)
	INDIANA . . . . .	97	57	4 879	27 642	4 013	7 931	19 669	51 626	2 395	3 934	31 063
	MICHIGAN . . . . .	75	24	3 820	22 189	3 143	6 505	16 186	38 745	1 718	(D)	(D)
	WEST NORTH CENTRAL . . . . .	111	37	3 860	17 314	3 271	6 582	13 391	36 328	1 124	2 176	18 429
	MINNESOTA . . . . .	16	2	216	912	173	374	666	1 705	138	157	766
	MISSOURI . . . . .	21	4	391	1 571	334	660	1 246	3 603	120	280	1 571
	NEBRASKA . . . . .	12	5	723	2 975	645	1 263	2 490	6 258	110	(D)	(D)
	KANSAS . . . . .	30	13	1 447	7 081	1 195	2 448	5 447	16 256	482	579	5 088

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
		(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(number)	(\$1,000)
379	TRANSPORTATION EQUIPMENT, NEC-CONT. SOUTH . . . . .	222	82	7 399	30 068	6 393	12 716	22 878	61 198	2 605	5 045	26 592
	SOUTH ATLANTIC. . . . .	90	38	3 861	16 469	3 341	6 669	12 473	35 632	1 428	1 127	7 618
	NORTH CAROLINA . . . . .	13	6	501	1 432	416	734	1 016	2 882	117	(0)	(0)
	GEORGIA. . . . .	21	12	1 572	6 882	1 396	2 892	5 276	17 069	671	383	2 642
	FLORIDA. . . . .	45	15	1 167	5 532	980	1 936	4 161	10 617	463	(0)	(0)
	EAST SOUTH CENTRAL. . . . .	19	10	1 023	3 757	882	1 746	2 881	5 832	358	513	2 578
	TENNESSEE. . . . .	9	4	269	796	224	407	590	1 092	42	(0)	(0)
	ALABAMA. . . . .	4	3	346	1 272	315	599	1 048	1 815	124	(0)	-
	WEST SOUTH CENTRAL. . . . .	113	34	2 515	9 842	2 170	4 301	7 524	19 734	819	3 405	16 396
	OKLAHOMA . . . . .	23	7	577	2 214	501	1 011	1 584	4 588	157	923	4 225
	WEST. . . . .	269	101	8 472	40 679	7 294	14 024	31 629	68 120	3 309	5 198	34 674
	IDAHO. . . . .	12	6	523	2 256	444	902	1 647	4 589	341	166	608
	COLORADO . . . . .	26	4	271	1 358	225	424	1 113	2 407	241	(0)	(0)
	ARIZONA. . . . .	16	4	247	1 106	212	415	861	1 566	103	(0)	(0)
	UTAH . . . . .	13	4	327	1 653	262	513	1 137	2 653	93	(0)	(0)
	WASHINGTON . . . . .	22	4	230	975	197	345	766	1 412	75	(0)	(0)
	CALIFORNIA . . . . .	158	71	6 311	31 072	5 468	10 513	24 313	51 787	2 297	4 185	29 128

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>This industry group consists of a single 4-digit industry. Detailed data by State are included in the 4-digit industry tables.



TABLE 3. Detailed Statistics: 1963

Item	Transportation equipment (SIC 37)	Motor vehicles and equipment (SIC 371)	Aircraft and parts (SIC 372)	Ship and boat building (SIC 373)	Railroad equip- ment (SIC 374)	Motorcycles, bicy- cles, and parts (SIC 375)	Transportation equipment, n.e.c. (SIC 379)
ESTABLISHMENTS, TOTAL . . . . . NUMBER . .	7 196	2 765	1 346	1 960	102	88	935
WITH 1 TO 19 EMPLOYEES . . . . . DO . .	4 328	1 543	631	1 492	32	55	575
WITH 20 TO 99 EMPLOYEES . . . . . DO . .	1 672	691	363	318	27	17	256
WITH 100 EMPLOYEES OR MORE . . . . . DO . .	1 196	531	352	150	43	16	104
PROPRIETORS AND WORKING PARTNERS . . . . . DO . .	3 169	1 067	419	1 240	14	13	416
ALL EMPLOYEES (AVERAGE FOR THE YEAR) . . . . . DO . .	1 601 158	693 821	679 385	139 510	45 079	9 662	33 701
PAYROLL (ALL EMPLOYEES), TOTAL FOR YEAR . . . . . \$1,000 . .	11 858 240	5 193 447	5 253 685	898 439	301 695	48 425	162 549
PRODUCTION WORKERS:							
AVERAGE FOR THE YEAR . . . . . NUMBER . .	1 150 082	571 026	390 295	117 394	34 902	7 912	28 553
MARCH . . . . . DO . .	1 168 966	592 177	386 858	121 213	35 012	7 549	26 157
MAY . . . . . DO . .	1 159 037	583 065	383 462	122 300	33 082	8 149	28 979
AUGUST . . . . . DO . .	1 062 841	475 125	399 824	114 346	35 591	8 431	29 524
NOVEMBER . . . . . DO . .	1 209 657	633 739	390 986	111 920	35 902	7 525	29 585
MAN-HOURS . . . . . 1,000 . .	2 450 150	1 264 399	810 454	235 523	68 049	15 152	56 573
JANUARY-MARCH . . . . . DO . .	609 426	309 085	208 215	60 299	16 058	3 429	12 340
APRIL-JUNE . . . . . DO . .	624 859	323 628	203 696	62 082	16 672	4 073	14 708
JULY-SEPTEMBER . . . . . DO . .	575 838	286 788	194 557	58 664	16 874	4 013	14 942
OCTOBER-DECEMBER . . . . . DO . .	642 299	344 898	203 999	56 437	18 457	3 660	14 848
WAGES . . . . . \$1,000 . .	7 731 192	4 069 698	2 585 997	701 693	217 540	34 398	121 866
COST OF MATERIALS, ETC., TOTAL <sup>1</sup> . . . . . DO . .	32 725 442	24 449 111	5 887 954	853 282	840 808	112 157	582 130
MATERIALS, PARTS, CONTAINERS, AND SUPPLIES CONSUMED . . . . . DO . .	31 205 370	24 041 040	4 906 174	779 986	808 800	102 722	566 648
COST OF REALES . . . . . DO . .	529 636	170 576	307 309	17 497	19 640	6 323	8 291
FUELS CONSUMED . . . . . DO . .	113 567	77 778	21 551	6 915	5 241	724	1 358
ELECTRIC ENERGY:							
PURCHASED:							
QUANTITY . . . . . MILLION KW.-HRS. .	18 924	11 114	6 175	1 078	396	75	86
COST . . . . . \$1,000 . .	204 102	118 781	64 818	12 984	4 793	877	1 849
GENERATED LESS SOLD . . . . . MILLION KW.-HRS. .	13 840	575	9 141	1 959	1 310	-	855
CONTRACT WORK . . . . . \$1,000 . .	672 004	41 086	588 102	35 897	2 334	1 511	3 074
VALUE OF SHIPMENTS (INCLUDING REALES), TOTAL <sup>1</sup> . . . . . DO . .	55 428 194	37 173 401	13 776 419	2 039 973	1 365 056	192 851	880 494
VALUE OF REALES . . . . . DO . .	672 042	205 800	414 740	22 552	8 480	7 572	12 898
VALUE ADDED BY MANUFACTURE, ADJUSTED . . . . . DO . .	22 765 674	12 780 577	7 867 349	1 192 749	541 471	82 245	301 283
MANUFACTURERS' INVENTORIES:							
BEGINNING OF YEAR, TOTAL . . . . . DO . .	6 553 226	2 480 091	3 253 414	459 793	241 409	34 852	83 667
FINISHED PRODUCTS . . . . . DO . .	812 470	456 380	260 032	31 877	31 411	9 500	23 270
WORK-IN-PROCESS . . . . . DO . .	3 936 877	1 025 979	2 370 646	350 985	160 597	15 926	12 744
MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO . .	1 803 859	997 722	622 736	76 931	49 401	9 426	47 643
END OF YEAR, TOTAL . . . . . DO . .	7 048 765	2 627 239	3 603 427	422 697	270 006	36 006	89 390
FINISHED PRODUCTS . . . . . DO . .	791 245	434 702	255 822	33 645	30 319	11 398	25 359
WORK-IN-PROCESS . . . . . DO . .	4 300 913	1 104 914	2 676 420	311 696	178 912	15 579	13 392
MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO . .	1 956 607	1 087 623	671 185	77 356	60 775	9 029	50 639
EXPENDITURES FOR PLANT AND EQUIPMENT, TOTAL . . . . . DO . .	1 115 081	702 010	318 896	57 064	19 349	3 437	14 325
NEW, TOTAL . . . . . DO . .	1 022 004	655 374	294 163	37 949	18 072	3 152	13 294
NEW STRUCTURES AND ADDITIONS TO PLANT . . . . . DO . .	273 140	144 982	102 372	15 814	3 423	540	6 009
NEW MACHINERY AND EQUIPMENT . . . . . DO . .	748 864	510 392	191 791	22 135	14 649	2 612	7 285
USED PLANT AND EQUIPMENT . . . . . DO . .	93 077	46 636	24 733	19 115	1 277	285	1 031
SELECTED OPERATING RATIOS:							
PAYROLL/TOTAL EMPLOYMENT . . . . .	7 406	7 485	7 733	6 437	6 693	5 012	4 823
PRODUCTION WORKERS/TOTAL EMPLOYMENT . . . . .	.72	.82	.57	.84	.77	.82	.85
MAN-HOURS/PRODUCTION WORKERS . . . . .	2 130	2 214	2 077	2 006	1 950	1 915	1 981
PRODUCTION WORKER WAGES/MAN-HOURS . . . . .	3.16	3.22	3.19	2.98	3.20	2.27	2.15
COST OF MATERIALS AND PAYROLLS/TOTAL VALUE OF SHIPMENTS . . . . .	.80	.80	.81	.86	.84	.83	.85
COST OF MATERIALS/TOTAL VALUE OF SHIPMENTS . . . . .	.59	.66	.43	.42	.62	.58	.66
ADJUSTED VALUE ADDED/TOTAL EMPLOYMENT . . . . .	14 218	18 421	11 580	8 550	12 012	8 512	8 940
SALARIES AND WAGES/ADJUSTED VALUE ADDED . . . . .	.52	.41	.67	.75	.56	.59	.54

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry. For a more complete explanation, see Introduction.

## MOTOR VEHICLES AND EQUIPMENT

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

3713—Truck and Bus Bodies  
3715—Truck Trailers  
3717—Motor Vehicles and Parts

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3713—TRUCK AND BUS BODIES

This industry comprises establishments primarily engaged in the manufacture of truck and bus bodies for sale separately, or for assembly on purchased chassis. Establishments primarily engaged in manufacturing complete trucks and busses are classified in Census Industry 3717, and stamped body parts for truck and busses in industry 3461.

The code number as well as the definition of this industry was unchanged between 1958 and 1963. For a detailed list of products of industry 3713, refer to table 6A, product codes 3713012 to 3713099.

Value of shipments and other receipts of the Truck and Bus Bodies Industry in 1963 totaled \$477 million. This amount included shipments of truck and bus bodies (primary products) valued at \$362 million, shipments of other products (secondary products) valued at \$56 million, and miscellaneous receipts (mainly resales) at \$58 million.

This industry's shipments of truck and bus bodies in 1963 represented 88 percent of its total product shipments. The industry specialization ratio in 1958 was 87 percent. Secondary products shipped by this industry in 1963 included motor vehicle manufacturers (\$11 million), parts and accessories for passenger cars, trucks, and busses shipped to; other than motor vehicle manufacturers (\$17 million).

Shipments of truck and bus bodies by this industry in 1963 represented 86 percent of all shipments of these products (\$420 million) by all industries. In 1958 the coverage ratio



was 87 percent. Other industries shipping truck and bus bodies consisted mainly of industry 3717, Motor Vehicles and Parts, \$18 million; and industry 3715, Truck Trailers, \$13 million.

#### 3715—TRUCK TRAILERS

This industry comprises establishments primarily engaged in the manufacture of truck trailers and truck trailer chassis for sale separately, but not engaged in manufacturing complete trucks and busses.

The code number as well as the definition of this industry were unchanged between 1958 and 1963. For a detailed list of products of industry 3715, refer to table 6A, product codes 3715011 to 3715055.

Value of shipments and other receipts of the Truck Trailers Industry in 1963 totaled \$516 million. This amount included shipments of truck trailers (primary products) valued at \$450 million, shipments of other products (secondary products) valued at \$39 million, and miscellaneous receipts (mainly resales), at \$27 million.

This industry's shipments of truck trailers in 1963 represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 84 percent. Secondary products shipped by this industry in 1963 consisted mainly of truck and bus bodies (\$13 million), and automotive parts and accessories shipped to motor vehicle manufacturers (\$10 million).

Shipments of truck trailers by this industry in 1963 represented 93 percent of all shipments of these products (\$485 million) by all industries. In 1958 the coverage ratio was also 93 percent. Other industries shipping truck trailers consisted mainly of industry 3443, Boiler Shop Products, \$2 million; and industry 3717, Motor Vehicles, and Parts, \$6 million.

#### 3717—MOTOR VEHICLES AND PARTS

The Motor Vehicles and Parts Industry includes establishments engaged primarily in the manufacture or assembly of complete passenger automobiles, car bodies, trucks, commercial cars and busses (except trackless trolleys-Industry 3742), special purpose motor vehicles and motor vehicle parts and accessories. Establishments primarily engaged in manufacturing truck and bus bodies and assembling them on purchased chassis are classified in industry 3713; motorcycles in industry 3751; wheel type tractors, except contractors' off-highway types in industry 3522; track laying tractors in industry 3531; and combat tanks in industry 1931.

In this report, based on the 1963 Census of Manufactures, as in 1958, the three Standard Industrial Classification industries (3711, 3712, and 3714) have been combined because of a major problem of defining the reporting unit in terms of these industries. This difficulty arises from the fact that many large establishments have integrated operations which include the production of parts or bodies and the assembly of complete vehicles at the same location.

Included in industry 3717 are such parts as passenger-car bodies, motor vehicle engines (except Diesel), brakes, clutches, axles, radiators, differentials, transmissions, wheels and frames, windshield wipers, automotive bumpers, camshafts, connecting rods, crankshaft assemblies, cylinder heads, drive shafts, exhaust systems, fuel systems, heaters, hoods, horns, instrument board assemblies, lubrication systems, mufflers, power-transmission equipment, rear-axle housings, shock absorbers, steering mechanisms, tops (except stamped metal), universal joints, wheel rims, windshield frames, and automobile accessories, not elsewhere classified.

A considerable number of components, parts and accessories for motor vehicles are not classified in industry 3717 but are classified in other Standard Industrial Classification industries based on the characteristic of the product itself rather than the Specific Application. Among the more important of these are automotive hardware, industry 3429, Hardware, N.E.C.; automotive stampings, industry 3461, Metal Stampings; Diesel and semi-Diesel engines, industry 3519, Internal Combustion Engines; sealed beam and other electric lamps, industry 3641, Electric Lamps; motor vehicle lighting fixtures, industry 3642, Lighting Fixtures; bearings, industry 3566, Power-Transmission Equipment; tires and inner tubes, industry 3011, Tires and Inner Tubes; automobile glass, industry 3211, Flat Glass; ignition equipment such as spark plugs, distributors, switches, ignition coils, generators, cranking motors, etc., industry 3694, Engine Electrical Equipment; storage batteries, industry 3691, Storage Batteries; automobile radios, industry 3651, radio and Television Receiving Sets; and carburetors and pistons, industry 3599, Miscellaneous Machinery.

The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been slightly changed from the classification system used in 1958. The change in the composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is due principally to revision in the definition of this industry made in the 1963 Supplement to the 1957 edition of the Standard Industrial Classification, reclassifying establishments primarily manufacturing automotive wiring harness sets other than ignition, from industry 3694, "Engine Electrical Equipment" to industry 3714 (Census Industry 3717). For a detailed list of products of industry 3717, refer to table 6A, product codes 3717111 to 3717711.

Motor vehicle and equipment companies frequently operate separate establishments manufacturing such components, parts and accessories for automotive use. These establishments are not classified in industry 3717. Therefore, to obtain an overall picture of automotive components, parts and accessories associated with the manufacture or assembly of complete motor vehicles and equipment, reference must also be made to many of the industries outside of industry 3717. This situation occurs, of course, not only in connection with the Motor Vehicles and Parts Industry but for many other industries (aircraft, locomotives, etc.).

Another factor to be considered in dealing with the statistics for this group of industries relates to the varied degree of establishment integration in respect to such metalworking operations as stamping, foundry, and tool and die production associated with the output of motor vehicles and equipment. In some establishments many of these activities are conducted as an integral part of the same establishment which produces or assembles motor vehicles and equipment. In these cases, their employment, wages, materials, etc., are included in the statistics for the establishment. The extent of such integrated captive operations is shown in Table 9 for the motor vehicle industry.

On the other hand, the foundry, and tool and die activities may be set up as separate establishments of motor vehicle and equipment companies or such activities may be performed by establishments which are not part of motor vehicle or parts companies. In either of these cases, data for such separate establishments would not be included in industry 3717, but rather in their respective industries, e.g., Industry Group 332, Iron and Steel Foundries; Industry Group 336, Nonferrous Foundries; and Industry 3544, Special Dies and Tools.

#### Value of Shipments

Data on cost of materials and value of shipments of the Motor Vehicle and Parts Industry include extensive duplication resulting from the transfer of motor vehicle parts to establishments producing complete motor vehicles. The value of such shipments are



duplicated in the total value of shipments. A corresponding duplication enters into the total cost of materials. The data shown for value added by manufacture (value of shipments less cost of materials, etc.) avoid this duplication.

#### Replacement Parts

Manufacturers' shipments of replacement parts for passenger cars, trucks, busses, and trailers during 1963 amounted to \$2,318 million. The comparable 1958 figure was \$1,639 million. These figures include parts made by establishments classified in the Motor Vehicles and Parts Industry as well as parts classified as primary products of other industries. They include the value of motor vehicle replacement parts such as spark plugs, ignition coils, storage batteries, carburetors, pistons and piston rings, headlights, fan belts, springs, hardware, mufflers, radiators and cores, water and fuel pumps, wheels, universal joints, cylinder heads, hub and drum assemblies, transmissions, shock absorbers, rear axle shafts, and clutch disc and facing assemblies.

These figures represent the shipments of these parts by parts manufacturers to other than motor vehicle manufacturers and shipments of replacement parts by motor vehicle manufacturers including parts which they purchased and resold in the same condition. No duplication is involved since parts manufacturers reported separately parts shipped to motor vehicle manufacturers and the latter figure is not included in this total. Value of shipments of tires and tubes and motor vehicle accessories such as radios, heaters, etc., are not included in this figure.

In order to arrive at an aggregate value for replacement parts without duplication, establishments producing replacement parts but not engaged in manufacturing complete vehicles were requested to exclude from their shipments data on replacement parts all shipments to motor vehicle producers. Motor vehicle producers that reshipped such replacement parts were requested to report the value of these shipments, even though the parts were not made by such companies. The value of replacement parts in 1963 totaled the \$2,318 million referred to above.

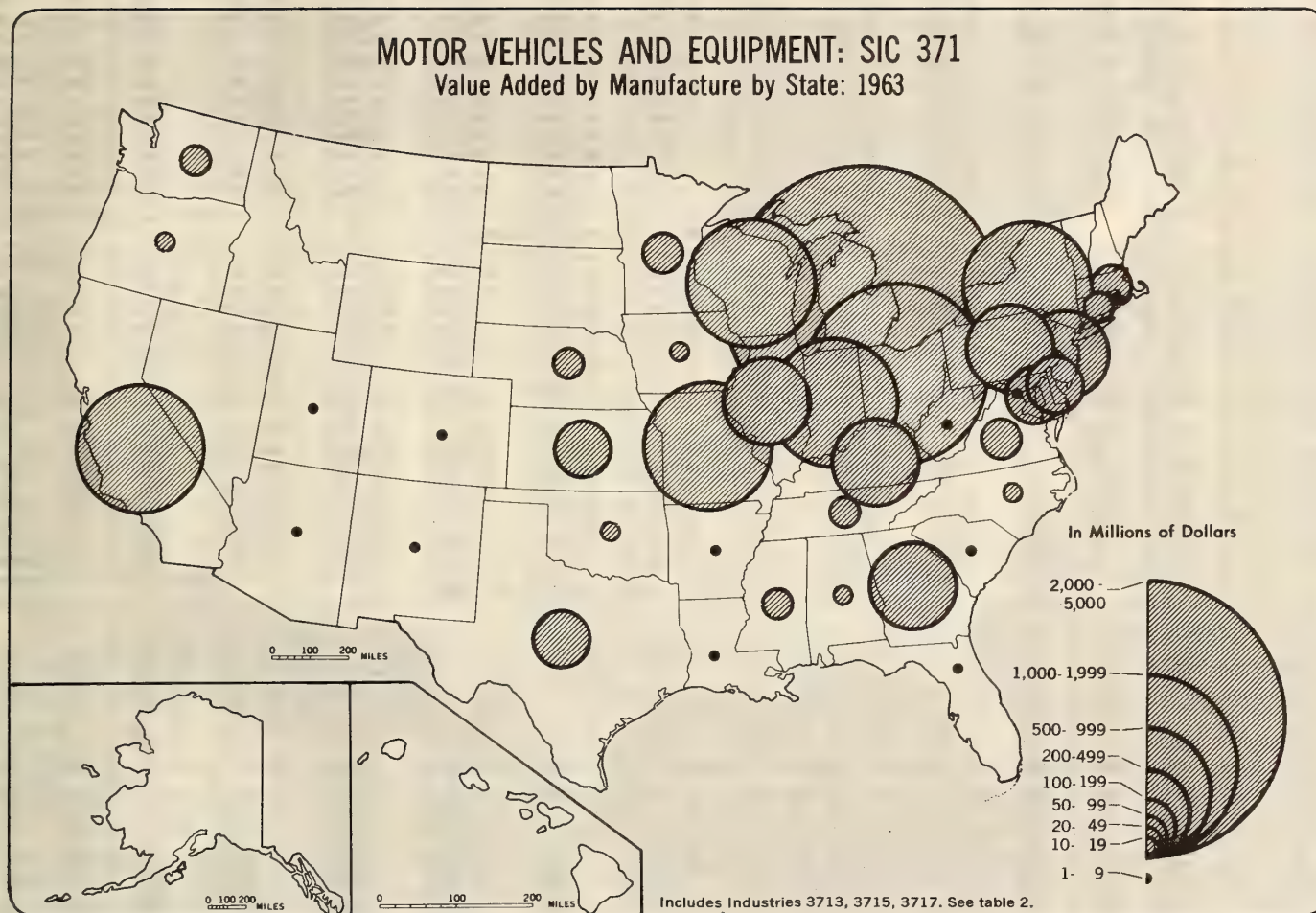
Table 6E shows data for 1963 and 1958 on the total production of selected motor vehicle parts and the use of such parts in the assembly of new vehicles as well as the use of these parts for replacement, export, and other uses. These data are not a precise measure of the sale of replacement parts in the United States since they include shipments of parts for export and are affected by inventory changes of parts during the year by both producers of parts and assemblers of vehicles. Also, see general Note of table 6E for discussion of other limitations of these data.

Value of shipments and other receipts of the Motor Vehicles and Parts Industry in 1963 totaled \$36,181 million. This amount included shipments of motor vehicles and parts (primary products) valued at \$34,837 million, shipments of other products (secondary products) valued at \$985 million, and miscellaneous receipts (mainly resales), at \$359 million.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent to this specialization is indicated in table 8. Approximately 47 percent of the total industry shipments are represented by plants specializing in product class; 37171, Passenger cars, knocked down or assembled and; chassis for sale separately and 36 percent in 37175, Parts and accessories shipped to motor vehicle manufactures.

As shown in table 5B, except for motor vehicle parts and accessories, only a very small amount of primary products of this industry was shipped by establishments classified in other industries.

# **MOTOR VEHICLES AND EQUIPMENT: SIC 371** **Value Added by Manufacture by State: 1963**



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS



TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spec- ial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll (\$1,000)	Total  (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3713.—TRUCK AND BUS BODIES														
1963.....	594	610	208	24,466	133,300	19,729	40,897	98,359	229,472	250,217	476,733	6,554	88	86
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	25,066	131,713	19,707	41,182	94,448	200,302	317,907	503,970	(6,936)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,237	115,554	18,278	36,606	80,890	160,341	216,949	374,121	33,843	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,247	120,144	21,171	37,686	87,518	172,707	223,735	394,813	(S)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,815	108,904	18,007	35,681	78,045	157,582	207,523	362,803	(S)	(NA)	(NA)
1958.....	550	562	187	20,009	91,374	15,938	30,741	65,405	145,608	163,674	307,769	3,627	87	87
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,316	93,629	17,026	34,136	67,776	148,373	154,180	302,473	(S)	90	87
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,286	99,424	19,147	38,724	75,533	156,424	163,272	312,847	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,360	89,158	17,535	35,354	66,357	141,469	144,424	280,368	5,005	(NA)	(NA)
1954.....	555	565	172	19,618	80,380	15,869	31,988	58,192	120,499	136,792	256,883	3,697	86	87
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,836	83,510	17,329	(NA)	65,764	126,013	132,433	258,446	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,894	85,050	18,166	(NA)	65,381	136,051	135,606	271,657	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,285	88,552	20,787	(NA)	69,793	137,620	154,098	291,718	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,068	58,225	14,692	(NA)	43,947	82,881	80,923	163,804	(NA)	(NA)	(NA)
1947 <sup>2</sup> .....	599	603	206	26,646	78,386	22,876	47,209	62,664	127,429	114,868	242,297	(NA)	79	90
INDUSTRY 3715.—TRUCK TRAILERS														
1963.....	175	197	105	19,429	112,876	15,455	30,896	81,703	205,475	309,463	515,661	5,265	92	93
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,205	117,329	15,833	31,789	83,029	218,489	325,649	543,804	6,150	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,205	94,260	13,255	26,274	65,792	158,058	247,165	405,403	10,182	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,854	101,564	14,729	29,583	72,725	170,094	267,810	438,548	7,899	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,622	107,127	16,701	35,413	77,990	203,195	304,962	505,418	(10,300)	(NA)	(NA)
1958.....	154	170	93	15,669	78,142	12,090	24,564	55,390	131,140	206,258	334,724	5,072	84	93
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,427	82,470	12,329	24,737	55,510	137,424	215,352	354,079	(S)	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,163	92,336	14,830	30,072	65,516	158,773	261,910	415,659	7,108	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,957	91,766	15,138	32,376	67,498	147,181	264,348	408,208	6,181	(NA)	(NA)
1954.....	115	130	78	16,381	72,904	13,023	26,197	52,352	115,718	200,943	316,832	2,788	82	93
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,411	80,611	15,738	32,730	61,319	147,458	243,520	390,978	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,497	69,312	14,063	29,046	52,349	104,298	188,728	293,026	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,080	68,454	14,920	(NA)	52,933	112,340	215,657	327,997	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,826	43,583	9,905	20,752	33,742	92,022	147,242	239,264	(NA)	(NA)	(NA)
1947.....	107	120	(NA)	12,488	36,287	9,741	19,239	25,964	67,570	88,116	155,686	(NA)	81	87
1939 <sup>2</sup> .....	(NA)	99	(NA)	(NA)	(NA)	3,960	(NA)	5,291	13,626	22,356	35,982	(NA)	(NA)	(NA)
INDUSTRY 3717.—MOTOR VEHICLES AND PARTS														
1963.....	1,655	1,958	909	649,926	4,947,271	535,842	1,192,606	3,889,636	12,345,630	<sup>3</sup> 23,889,431	<sup>3</sup> 36,181,007	643,555	97	98
1962 <sup>1 4</sup> .....	(NA)	(NA)	(NA)	628,386	4,465,378	517,189	1,110,236	3,483,972	11,110,932	<sup>3</sup> 21,573,772	<sup>3</sup> 32,673,777	492,177	(NA)	(NA)
1961 <sup>1 4</sup> .....	(NA)	(NA)	(NA)	569,619	3,779,955	460,339	945,118	2,881,527	8,541,738	<sup>3</sup> 17,198,955	<sup>3</sup> 25,847,658	381,601	(NA)	(NA)
1960 <sup>1 4</sup> .....	(NA)	(NA)	(NA)	658,148	4,319,876	540,751	1,131,519	3,378,515	9,717,429	<sup>3</sup> 20,312,551	<sup>3</sup> 30,110,144	462,402	(NA)	(NA)
1959 <sup>1 4</sup> .....	(NA)	(NA)	(NA)	599,912	3,914,529	489,423	1,057,969	3,019,106	8,915,412	<sup>3</sup> 17,913,691	<sup>3</sup> 26,712,803	386,609	(NA)	(NA)
1958 <sup>1 4</sup> .....	1,257	1,560	753	546,037	3,169,173	433,982	858,440	2,374,447	6,504,510	<sup>3</sup> 14,188,996	<sup>3</sup> 20,830,059	334,068	96	99
1958 <sup>4</sup> (old)....	(NA)	1,264	652	530,658	3,094,135	421,623	832,838	2,318,958	6,332,327	(NA)	(NA)	311,437	(NA)	(NA)
1957 <sup>1 4</sup> .....	(NA)	(NA)	(NA)	688,355	3,755,274	554,555	1,129,105	2,946,041	8,291,255	(NA)	(NA)	665,801	(NA)	(NA)
1956 <sup>1 4</sup> .....	(NA)	(NA)	(NA)	679,097	3,597,338	558,609	1,145,681	2,831,522	7,628,002	(NA)	(NA)	1,017,454	(NA)	(NA)
1955 <sup>1 4</sup> .....	(NA)	(NA)	(NA)	777,450	4,154,649	667,816	1,436,193	3,407,836	9,432,120	(NA)	(NA)	592,253	(NA)	(NA)
1954 <sup>4</sup> .....	991	1,226	649	649,274	3,214,827	545,359	1,125,912	2,569,419	5,901,436	(NA)	(NA)	722,199	(NA)	(NA)
1953 <sup>1 4</sup> .....	(NA)	(NA)	(NA)	807,597	3,812,230	684,336	1,385,869	3,085,219	6,940,945	(NA)	(NA)	(NA)	(NA)	(NA)
1952 <sup>1 4</sup> .....	(NA)	(NA)	(NA)	664,727	3,043,274	557,993	1,147,912	2,445,109	5,819,252	(NA)	(NA)	(NA)	(NA)	(NA)
1951 <sup>1 4</sup> .....	(NA)	(NA)	(NA)	723,503	2,971,973	621,090	(NA)	2,428,338	5,635,879	(NA)	(NA)	(NA)	(NA)	(NA)
1950 <sup>1 4</sup> .....	(NA)	(NA)	(NA)	720,788	2,839,371	625,462	1,281,758	2,355,462	5,919,893	(NA)	(NA)	(NA)	(NA)	(NA)
1949 <sup>1 4</sup> .....	(NA)	(NA)	(NA)	648,326	2,370,355	552,448	1,103,235	1,932,590	4,583,364	(NA)	(NA)	(NA)	(NA)	(NA)
1947 <sup>2 4</sup> .....	(NA)	951	(NA)	645,067	2,039,872	552,055	1,102,482	1,666,913	3,544,924	(NA)	(NA)	269,720	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. For 1959-1962 the figures shown in parenthesis either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>No comparable figures are available for earlier years.

<sup>3</sup>Includes extensive duplication arising from shipments between establishments in the same industry classification.

<sup>4</sup>A revision in the definition of this industry was made in the 1963 Supplement to the 1957 edition of the Standard Industrial Classification, reclassifying establishments primarily manufacturing automotive wiring harness sets other than ignition, from Industry 3694, "Engine Electrical Equipment" to Industry 3714 (Census Industry 3717). The statistics for 1958-1962 have been revised to take this reclassification into account. The data for 1947-1957 could not be revised to conform with this reclassification. Further, the 1947-1957 data are not strictly comparable with 1958-1963 because of changes introduced in the 1957 Standard Industrial Classification.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3713.—TRUCK AND BUS BODIES													
Total.....	610	208	24,466	133,300	19,729	40,897	98,359	229,472	250,217	476,733	6,554	20,009	145,608
New England.....	33	7	424	2,192	341	713	1,628	3,528	3,932	7,461	128	340	1,787
Middle Atlantic....	119	43	3,362	17,379	2,777	5,722	13,062	25,875	33,168	58,453	733	3,836	29,723
New York.....	44	16	1,075	5,351	884	1,836	4,039	8,358	10,714	18,968	260	1,848	14,667
New Jersey.....	24	7	566	3,371	478	1,054	2,622	4,757	5,936	10,610	183	637	6,002
Pennsylvania.....	51	20	1,721	8,657	1,415	2,832	6,401	12,760	16,518	28,875	290	1,351	9,054
East North Central.	119	53	10,864	63,161	8,684	18,129	47,351	106,745	111,057	217,608	2,095	8,529	63,594
Illinois.....	27	10	980	5,278	811	1,702	3,700	8,546	11,435	20,007	270	980	6,358
Michigan.....	23	9	2,027	12,814	1,616	3,826	9,641	20,782	17,796	38,624	332	261	1,827
West North Central.	77	26	1,993	10,330	1,579	3,145	7,187	18,834	21,043	39,353	1,775	1,662	12,168
Minnesota.....	18	6	331	1,986	249	496	1,287	3,134	5,208	8,257	26	240	2,092
Iowa.....	13	3	281	1,156	233	485	881	1,822	2,725	4,526	(D)	296	1,951
Missouri.....	31	13	1,128	6,060	881	1,720	4,216	11,872	11,096	22,602	1,481	( <sup>2</sup> )	( <sup>2</sup> )
Nebraska.....	5	2	152	659	132	268	528	1,009	1,026	2,009	72	169	1,013
South Atlantic....	70	22	2,828	13,550	2,318	5,078	9,452	22,334	28,492	49,184	681	2,062	11,500
Maryland.....	11	2	162	727	133	269	515	997	1,590	2,574	30	172	710
Virginia.....	11	3	423	2,048	327	761	1,446	3,146	4,930	7,583	176	232	1,478
Georgia.....	13	5	901	3,903	762	1,593	2,684	5,831	10,241	15,692	165	700	3,117
East South Central.	35	11	1,192	5,387	999	1,997	4,280	12,544	14,320	26,941	479	781	5,148
Alabama.....	9	2	334	1,422	259	532	1,012	2,610	2,960	5,412	140	149	1,174
West South Central.	39	11	1,006	4,404	859	1,793	3,353	8,995	9,655	18,386	122	801	6,067
Texas.....	19	6	475	2,243	383	823	1,642	5,349	4,740	9,925	87	436	3,872
Mountain.....	13	2	170	955	114	212	562	1,347	1,512	2,884	30	180	1,124
Pacific.....	105	33	2,627	15,942	2,058	4,108	11,484	29,270	27,038	56,463	511	1,818	14,497
Washington.....	9	4	182	1,214	152	290	954	2,157	1,764	3,914	27	( <sup>2</sup> )	( <sup>2</sup> )
Oregon.....	13	5	280	1,579	228	453	1,244	3,385	2,847	6,223	37	( <sup>2</sup> )	( <sup>2</sup> )
California.....	83	24	2,165	13,149	1,678	3,365	9,286	23,728	22,427	46,326	447	1,642	13,196
INDUSTRY 3715.—TRUCK TRAILERS													
Total.....	197	105	19,429	112,876	15,455	30,896	81,703	205,475	309,463	515,661	5,265	15,669	131,140
New England.....	5	2	101	421	86	162	333	703	516	1,225	12	65	435
Middle Atlantic....	36	18	3,891	23,064	3,183	6,021	16,875	39,620	66,913	106,872	1,029	1,717	21,420
New York.....	7	2	184	897	137	238	551	1,972	3,017	5,269	48	233	2,419
New Jersey.....	6	1	152	834	123	231	597	840	1,980	2,774	16	151	1,382
Pennsylvania.....	23	15	3,555	21,333	2,923	5,552	15,727	36,808	61,916	98,829	965	1,333	17,619
East North Central.	37	24	5,961	35,759	4,829	9,494	26,783	75,189	101,442	176,555	1,889	4,524	34,322
Michigan.....	8	2	168	1,027	132	266	749	2,169	1,325	3,389	14	182	1,654
West North Central.	20	14	2,196	12,777	1,593	3,182	8,350	21,694	28,688	49,889	543	2,203	18,523
Iowa.....	5	3	380	2,125	279	590	1,335	4,125	4,937	9,048	(D)	291	2,794
South Atlantic....	13	4	975	4,762	791	1,660	3,400	4,441	14,210	20,013	135	1,212	7,507
East South Central.	11	7	1,595	7,677	1,265	2,825	5,908	14,880	26,847	41,609	270	1,570	9,779
West South Central.	26	12	2,041	10,970	1,645	3,492	8,076	20,444	29,036	49,084	621	1,636	13,836
Mountain.....	9	5	478	2,809	367	726	1,966	3,757	6,567	10,228	102	344	4,128
Pacific.....	40	19	2,191	14,637	1,696	3,334	10,012	24,747	35,244	60,186	664	2,398	21,190
Oregon.....	5	3	227	1,639	173	349	1,143	2,708	4,948	7,538	282	( <sup>2</sup> )	( <sup>2</sup> )
California.....	28	11	1,641	11,060	1,243	2,462	7,414	18,479	24,970	44,064	277	1,918	15,999

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3717.—MOTOR VEHICLES AND PARTS													
Total.....	1,958	909	649,926	4,947,271	535,842	11,192,606	3,889,636	12,345,630	23,889,431	36,181,007	643,555	546,037	6,504,510
New England.....	67	24	7,224	45,691	5,722	12,504	32,908	118,606	240,002	353,766	4,683	5,461	50,627
Connecticut.....	17	8	3,694	21,924	2,855	5,588	14,788	36,093	41,971	72,906	1,413	2,419	22,772
Middle Atlantic....	215	97	64,148	493,205	51,346	114,975	378,655	1,167,879	2,362,631	3,521,332	63,606	63,312	747,798
New York.....	95	44	38,389	296,817	31,065	70,350	232,015	625,282	1,118,142	1,740,295	38,363	33,082	354,116
East North Central.	799	476	479,355	3,672,140	398,233	877,265	2,912,465	8,460,889	14,769,393	23,193,359	436,306	400,160	4,543,441
Ohio.....	180	121	105,218	792,195	87,436	190,715	631,238	1,820,652	2,813,069	4,632,877	78,448	82,294	933,006
Indiana.....	108	67	56,962	394,700	46,799	95,127	304,829	734,887	982,703	1,730,305	34,554	43,577	507,461
Michigan.....	333	200	261,154	2,087,364	215,741	488,760	1,649,948	4,881,329	9,041,168	13,879,415	287,447	229,200	2,572,339
West North Central.	115	53	29,522	229,762	24,403	57,398	179,897	853,344	2,242,270	3,095,765	37,737	22,740	405,032
Iowa.....	17	8	526	2,656	459	954	2,100	7,268	7,039	14,074	548	613	4,415
South Atlantic.....	140	48	25,550	199,243	20,775	49,868	154,764	724,180	1,871,695	2,588,252	21,779	19,327	300,078
North Carolina....	20	4	1,102	4,659	879	1,840	3,505	11,179	8,062	18,883	1,157	746	5,759
Florida.....	42	5	374	1,617	301	638	1,240	2,709	2,839	5,537	1,662	(2)	(2)
East South Central.	62	42	9,930	57,982	8,085	17,861	42,245	252,696	347,761	597,547	9,736	7,196	95,330
Alabama.....	12	6	846	4,083	752	1,563	3,202	8,505	8,849	17,072	359	540	5,049
Mississippi.....	8	7	1,523	7,025	1,246	2,614	4,726	16,419	12,936	27,596	979	962	5,693
West South Central.	153	46	7,633	52,787	6,245	15,208	40,332	189,534	404,942	592,258	10,596	5,078	76,499
Oklahoma.....	27	7	1,201	6,237	994	2,201	4,673	17,250	9,177	25,586	4,656	403	4,286
Mountain.....	63	13	993	5,139	792	1,570	3,588	9,630	9,158	17,443	1,665	470	3,121
Colorado.....	25	10	677	3,690	526	1,037	2,507	7,331	6,471	12,480	(D)	(2)	(2)
Pacific.....	344	110	25,571	191,322	20,241	45,957	144,782	568,872	1,641,579	2,221,285	57,447	22,293	282,584
California.....	307	102	23,194	175,988	18,462	42,576	133,917	541,217	1,586,060	2,138,586	55,719	20,778	268,475

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 3713, Truck and bus bodies: New England—Maine, 3 (20-99); Massachusetts, 17 (250-499); Rhode Island, 2 (20-99); Connecticut, 11 (20-99); East North Central—Ohio, 35 (4,132); Indiana, 20 (2,028); Wisconsin, 14 (1,697); West North Central—South Dakota, 3 (1-19); Kansas, 7 (20-99); South Atlantic—District of Columbia, 1 (100-249); West Virginia, 1 (1-19); North Carolina, 14 (500-999); South Carolina, 4 (20-99); Florida, 15 (229); East South Central—Kentucky, 7 (20-99); Tennessee, 13 (235); Mississippi, 6 (500-999); West South Central—Arkansas, 9 (250-499); Louisiana, 5 (100-249); Oklahoma, 6 (20-99); Mountain—Idaho, 3 (20-99); Colorado, 2 (20-99); Arizona, 2 (1-19); Utah, 4 (20-99); Nevada, 2 (1-19). SIC 3715, Truck Trailers: New England—Massachusetts, 4 (20-99); Connecticut, 1 (1-19); East North Central—Ohio, 8 (3,125); Indiana, 7 (1,236); Illinois, 10 (456); Wisconsin, 4 (976); West North Central—Minnesota, 1 (250-499); Missouri, 8 (718); South Dakota, 1 (1-19); Nebraska, 3 (502); Kansas, 2 (100-249); South Atlantic—Maryland, 3 (1-19); Virginia, 2 (20-99); West Virginia, 1 (20-99); North Carolina, 1 (1-19); South Carolina, 1 (20-99); Georgia, 1 (500-999); Florida, 4 (240); East South Central—Kentucky, 2 (250-499); Tennessee, 3 (475); Alabama, 5 (742); Mississippi, 1 (1-19); West South Central—Arkansas, 2 (1-19); Louisiana, 2 (250-499); Oklahoma, 2 (250-499); Texas, 20 (1,452); Mountain—Montana, 2 (20-99); Idaho, 1 (1-19); Colorado, 2 (250-499); New Mexico, 3 (20-99); Utah, 1 (20-99); Pacific—Washington, 6 (250-499); Hawaii, 1 (20-99). SIC 3717, Motor Vehicles and Parts: New England—Maine, 2 (1-19); New Hampshire, 2 (1-19); Massachusetts, 38 (2,939); Rhode Island, 8 (500-999); Middle Atlantic—New Jersey, 53 (12,156); Pennsylvania, 67 (13,603); East North Central—Illinois, 143 (20,973); Wisconsin, 35 (35,048); West North Central—Minnesota, 29 (2,500-4,999); Missouri, 47 (21,621); South Dakota, 3 (1-19); Nebraska, 6 (1,008); Kansas, 13 (3,650); South Atlantic—Delaware, 3 (5,816); Maryland, 15 (6,851); Virginia, 11 (1,860); West Virginia, 4 (500-999); South Carolina, 1 (100-249); Georgia, 44 (8,806); East South Central—Kentucky, 17 (4,164); Tennessee, 25 (3,397); West South Central—Arkansas, 12 (335); Louisiana, 9 (107); Texas, 105 (5,990); Mountain—Montana, 1 (1-19); Idaho, 6 (20-99); New Mexico, 4 (20-99); Arizona, 19 (100-249); Utah, 7 (20-99); Nevada, 1 (1-19); Pacific—Washington, 16 (1,000-2,499); Oregon, 20 (500-999); Hawaii, 1 (1-19).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

TABLE 3. Detailed Statistics: 1963

Item	Truck and bus bodies (SIC 3713)	Truck trailers (SIC 3715)	Motor vehicles and parts (SIC 3717)
Primary product specialization ratio <sup>1</sup> .....	88	92	97
Coverage ratio <sup>2</sup> .....	86	93	98
Establishments, total.....number..	610	197	1,958
With 1 to 19 employees.....do....	402	92	1,049
With 20 to 99 employees.....do....	163	60	468
With 100 employees or more.....do....	45	45	441
Proprietors and working partners.....do....	335	68	664
All employees (average for the year).....do....	24,466	19,429	649,926
Payroll (all employees), total for year.....\$1,000..	133,300	112,876	4,947,271
Production workers:			
Average for the year.....number..	<sup>3</sup> 19,835	<sup>3</sup> 15,497	<sup>3</sup> 546,200
January.....do....	19,880	15,266	562,740
February.....do....	19,444	15,358	555,547
March.....do....	19,152	15,415	557,610
April.....do....	20,035	14,863	565,948
May.....do....	20,423	14,880	547,762
June.....do....	20,862	15,470	569,069
July.....do....	20,404	15,611	476,371
August.....do....	20,141	15,608	439,376
September.....do....	19,921	15,713	485,862
October.....do....	19,814	15,985	592,178
November.....do....	19,203	15,916	598,620
December.....do....	18,743	15,899	603,314
Man-hours.....1,000..	40,897	30,896	1,192,606
January-March.....do....	9,605	7,564	291,916
April-June.....do....	10,862	7,620	305,146
July-September.....do....	10,565	7,740	268,483
October-December.....do....	9,865	7,972	327,061
Wages.....\$1,000..	98,359	81,703	3,889,636
Cost of materials, etc., total.....do....	250,217	309,463	23,889,431
Materials, parts, containers, and supplies consumed.....do....	224,561	298,517	23,517,962
Cost of resales.....do....	18,774	6,711	145,091
Fuels consumed.....do....	1,456	1,101	75,221
Electric energy:			
Purchased:			
Quantity.....million kw.-hrs..	161	117	10,836
Cost.....\$1,000..	2,427	1,678	114,676
Generated less sold.....million kw.-hrs..	(D)	-	140
Contract work.....\$1,000..	3,147	1,458	36,481
Value of shipments (including resales), total.....do....	476,733	515,661	36,181,007
Value of resales.....do....	21,254	9,992	174,554
Value added by manufacture, adjusted.....do....	229,472	205,475	12,345,630
Manufacturers' inventories:			
Beginning of year, total.....do....	67,754	82,140	2,330,197
Finished products.....do....	12,168	12,186	432,026
Work-in-process.....do....	27,363	13,676	984,940
Materials, supplies, fuel, etc.....do....	28,223	56,278	913,221
End of year, total.....do....	74,333	82,091	2,470,815
Finished products.....do....	13,772	13,153	407,777
Work-in-process.....do....	28,715	11,986	1,064,213
Materials, supplies, fuel, etc.....do....	31,846	56,952	998,825
Expenditures for plant and equipment, total.....do....	6,943	5,885	682,490
New, total.....do....	6,554	5,265	643,555
New structures and additions to plant.....do....	3,064	1,189	140,729
New machinery and equipment.....do....	3,490	4,076	502,826
Used plant and equipment.....do....	389	620	45,627
Selected operating ratios:			
Payroll/Total employment.....	5,448	5,810	7,612
Production workers/Total employment.....	.81	.80	.82
Man-hours/Production workers.....	2,074	1,999	2,226
Production worker wages/Man-hours.....	2.41	2.64	3.26
Cost of materials and payrolls/Total value of shipments.....	.80	.82	.80
Cost of materials/Total value of shipments.....	.52	.60	.66
Adjusted value added/Total employment.....	9,379	10,576	18,995
Salaries and wages/Adjusted value added.....	.58	.55	.40

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

<sup>3</sup>Differs from the production worker figure appearing in tables 1, 2, and 8 because the figures in those tables are based on employment for the payroll periods ended nearest the 15th of March, May, August and November. In this table they represent the average of 12 monthly figures.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
	INDUSTRY 3713.—TRUCK AND BUS BODIES										
Establishments.....number..	610	156	99	147	119	44	23	14	5	3	—
All employees:											
Total.....do....	24,466	309	714	2,070	3,679	3,137	3,537	4,869	2,818	3,333	—
Payroll.....\$1,000..	133,300	1,394	3,324	9,957	19,855	16,898	17,844	27,067	14,699	22,262	—
Value added, adjusted.....do....	229,472	2,806	5,980	17,523	35,540	28,538	32,627	42,724	26,902	36,832	—
Value of shipments.....do....	476,733	6,120	12,656	35,701	70,292	62,239	61,301	95,566	59,013	73,845	—
Capital expenditures, new...do....	6,554	109	162	502	942	936	706	1,136	1,652	409	—
	INDUSTRY 3715.—TRUCK TRAILERS										
Establishments.....number..	197	45	14	33	31	29	21	17	4	3	—
All employees:											
Total.....do....	19,429	87	94	421	992	2,164	3,318	5,540	6,813	(D)	—
Payroll.....\$1,000..	112,876	439	426	2,148	5,529	12,524	18,684	32,017	41,109	(D)	—
Value added, adjusted.....do....	205,475	772	931	4,502	9,432	20,407	28,101	59,384	81,946	(D)	—
Value of shipments.....do....	515,661	1,773	2,510	8,940	21,718	45,711	76,635	152,341	206,033	(D)	—
Capital expenditures, new...do....	5,265	36	52	88	475	994	617	1,110	1,893	(D)	—
	INDUSTRY 3717.—MOTOR VEHICLES AND PARTS										
Establishments.....number..	1,958	536	267	246	296	172	135	82	60	82	82
All employees:											
Total.....do....	649,926	963	1,815	3,422	9,384	12,091	21,141	29,352	41,739	138,097	391,922
Payroll.....\$1,000..	4,947,271	4,682	9,180	17,391	49,178	64,939	116,885	172,328	272,698	1,116,895	3,123,095
Value added, adjusted.....do....	12,345,630	10,272	19,013	33,791	96,583	140,619	235,305	371,417	573,212	3,318,970	7,546,448
Value of shipments.....do....	36,181,007	20,651	37,939	65,097	196,358	291,566	465,200	739,584	1,329,061	11,072,255	21,963,296
Capital expenditures, new...do....	643,555	27,684	8,209	8,325	13,332	19,608	18,236	20,785	16,294	160,074	371,008

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underlined figures at the left.

<sup>1</sup>Value of shipments for Industry 3717 include extension duplication. See text for more complete discussion.<sup>2</sup>Includes capital expenditures for plants under construction but not in operation which constitute a small proportion of the total for the size class.

TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
						Col. B Col. B+C (percent)				Col. B Col. F (percent)
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(percent)	(\$1,000)	(\$1,000)	(\$1,000)	(percent)
		A	B	C	D	E	F	G	H	I
3713	Truck and bus bodies.....1963..	476,733	362,470	56,197	58,066	88	419,747	362,470	57,277	86
	.....1958..	307,769	242,010	36,131	29,628	87	274,893	239,345	35,548	87
3715	Truck trailers.....1963..	515,661	449,610	39,377	26,674	92	484,678	449,610	35,068	93
	.....1958..	334,724	264,550	48,483	21,691	84	283,998	264,550	19,448	93
3717	Motor vehicles and parts.....1963..	36,181,007	34,837,455	984,717	358,835	<sup>1</sup> 97	35,413,168	34,837,455	575,713	<sup>3</sup> 98
	.....1959..	20,830,059	19,710,460	780,958	338,641	<sup>1</sup> 96	19,863,333	19,710,460	152,873	<sup>3</sup> 99

Note: See Introduction for an explanation of terms used.

<sup>1</sup>The percentages shown, although correct to the extent that they are mathematical calculations, are not meaningful because of duplication in the value of shipments. See introductory text for this industry.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Truck and bus bodies (SIC 3713)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Motor vehicles and parts (SIC 3717)	Other industries
TRUCK AND BUS BODIES INDUSTRY					MOTOR VEHICLES AND PARTS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	476,733	(X)		Total shipments and receipts of the industry.....	(X)	36,181,007	(X)
37130	Truck and bus bodies for sale separately (including those made on purchased chassis).....	419,747	362,470	57,277	3717-	Motor vehicles and parts:.....	35,413,168	34,837,455	575,713
	Secondary products.....	(X)	56,197	(X)	37171	Passenger cars, knocked down or assembled and chassis for sale separately.....	16,768,338	16,768,338	-
	Parts and accessories for passenger cars, trucks, and busses shipped to:				37172	Truck tractors, truck chassis and trucks (chassis of own manufacture).....	3,376,245	3,371,112	5,133
37175	Motor vehicle manufacturers....	(X)	11,461	(X)	37173	Motor coaches (except trolley busses) and fire department vehicles (chassis of own manufacture).....	182,453	179,192	3,261
37176	Other than motor vehicle manufacturers.....	(X)	16,630	(X)	37175	Parts and accessories for passenger cars, trucks, and busses shipped to motor vehicle manufacturers.....	12,922,164	12,492,769	429,395
35351	All other secondary products.....	(X)	28,106	(X)	37176	Parts and accessories for passenger cars, trucks and busses shipped to other than motor vehicle manufacturers.....	1,753,675	1,643,629	110,046
	Conveyors and conveying equipment (except hoists and farm elevators).....	(X)	(2-5)	(X)	37177	Rebuilt automotive parts, excluding carburetors.....	188,295	167,531	20,764
	Miscellaneous receipts.....	(X)	58,066	(X)	37174	Combat vehicles.....	221,998	214,884	7,114
	Contract work.....	(X)	2,038	(X)	37170	Motor vehicles and parts, n.s.k....			
	Resales.....	(X)	21,254	(X)		Secondary products.....	(X)	984,717	(X)
	Other.....	(X)	34,774	(X)	33214	All other gray iron castings.....	(X)	17,791	(X)
	Listing of other industries with over \$2 million shipments of truck and bus bodies:				34291	Transportation equipment hardware..	(X)	3,242	(X)
37130	2461 Metal stampings.....	(X)	(X)	(2-5)	34443	Other sheet metal work.....	(X)	2,055	(X)
	3531 Construction machinery.....	(X)	(X)	9,258	34510	Screw machine products.....	(X)	5,624	(X)
	3537 Industrial trucks and tractors.....	(X)	(X)	(2-5)	34612	Job stampings, except automotive..	(X)	3,575	(X)
3715	Truck trailers.....	(X)	(X)	12,948	34613	Job stampings, automotive.....	(X)	82,540	(X)
3717	Motor vehicles and parts....	(X)	(X)	18,325	34990	Fabricated metal products, n.e.c....	(X)	3,227	(X)
		All industries	Truck trailers (SIC 3715)	Other industries	35191	Gasoline engines, except outboard, aircraft and automotive engines...	(X)	8,763	(X)
					35197	Parts and accessories for internal combustion engines.....	(X)	10,289	(X)
					35222	Wheel tractors and parts and attachments (except garden and contractors' off-highway).....	(X)	11,703	(X)
					35228	All other farm machinery and equipment.....	(X)	7,227	(X)
37150	Truck trailers.....	484,678	449,610	35,068	35313	Parts and attachments for track laying and contractors' off-highway wheel tractors.....	(X)	26,857	(X)
	Secondary products.....	(X)	39,377	(X)	35318	Scrapers, graders, rollers, and off-highway trucks, trailers, and wagons, excluding parts.....	(X)	31,524	(X)
37130	Truck and bus bodies.....	(X)	12,948	(X)	35319	Other construction machinery and equipment, including construction machinery parts, n.e.c.....	(X)	5,270	(X)
37176	Parts and accessories for passenger cars, trucks and busses shipped to other than motor vehicle manufacturers.....	(X)	10,486	(X)	35370	Industrial trucks and tractors....	(X)	24,708	(X)
	All other secondary products.....	(X)	15,943	(X)	35661	Plain bearings.....	(X)	14,420	(X)
37175	Parts and accessories for passenger cars, trucks and busses shipped to motor vehicle manufacturers.....	(X)	(2-5)	(X)	35990	Carburetors, pistons, and other machine shop parts.....	(X)	8,973	(X)
	Miscellaneous receipts.....	(X)	26,674	(X)	36942	Battery charging generators.....	(X)	2,180	(X)
	Contract work.....	(X)	3,643	(X)	36945	Other complete electrical equipment for internal combustion engines...	(X)	3,734	(X)
	Resales.....	(X)	9,992	(X)	37130	Truck and bus bodies, for sale separately, including those made on purchased chassis.....	(X)	18,325	(X)
	Other miscellaneous receipts.....	(X)	13,039	(X)	37150	Truck trailers.....	(X)	6,382	(X)
	Listing of other industries with over \$2 million shipments of truck trailers:				37224	Aircraft engine parts and accessories.....	(X)	7,742	(X)
					37291	Other aircraft parts and auxiliary equipment.....	(X)	4,638	(X)
37150	3443 Boiler shop products.....	(X)	(X)	2,432	37423	Street cars and parts and accessories for railroad and street cars; rebuilt passenger and freight train cars.....	(X)	7,470	(X)
	3717 Motor vehicles and parts....	(X)	(X)	6,382					
	3522 Farm machinery and equipment	(X)	(X)	(2-5)					
	3531 Construction machinery.....	(X)	(X)	(2-5)					

See footnotes at end of table.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Motor vehicles and parts (SIC 3717)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Motor vehicles and parts (SIC 3717)	Other industries
	MOTOR VEHICLES AND PARTS INDUSTRY—Continued					MOTOR VEHICLES AND PARTS INDUSTRY—Continued			
	Secondary products—Continued					Listing of other industries with over \$2 million shipments of the primary product classes:			
	All other secondary products.....	(X)	666,458	(X)		Ind. Title			
19310	Tanks and tank components.....	(X)	(5-10)	(X)					
25151	Innerspring mattresses and spring cushions.....	(X)	(2-5)	(X)					
33176	Steel pipe and tubes (not made in steel mills).....	(X)	(over 2)	(X)	37173	3713 Truck and bus bodies.....	(X)	(X)	(over 2)
33576	Appliance wire and cord and flexible cord sets.....	(X)	(over 2)	(X)	37175	1929 Ammunition, n.e.c.....	(X)	(X)	(5-10)
33577	Magnet wire.....	(X)	(over 2)	(X)		1951 Small arms 30mm and under...	(X)	(X)	(over 2)
33579	Other insulated wire and cable, n.e.c.....	(X)	(over 2)	(X)		2531 Public building furniture...	(X)	(X)	(over 2)
33610	Aluminum and aluminum-base alloy castings.....	(X)	(2-5)	(X)		3011 Tires and inner tubes.....	(X)	(X)	(over 2)
33620	Copper and copper-base alloy castings.....	(X)	(over 2)	(X)		3069 Rubber products, n.e.c.....	(X)	(X)	20,542
34431	Heat exchangers and steam condensers.....	(X)	(5-10)	(X)		3369 Nonferrous castings, n.e.c...	(X)	(X)	(over 2)
34521	Bolts, nuts, and other standard industrial fasteners.....	(X)	(20-50)	(X)		3399 Primary metal industries, n.e.c.....	(X)	(X)	(over 2)
34930	Steel springs.....	(X)	(20-50)	(X)		3452 Bolts, nuts, rivets and washers.....	(X)	(X)	(5-10)
34941	Metal valves for piping systems except plumbing and heating valves.....	(X)	(over 2)	(X)		3461 Metal stampings.....	(X)	(X)	12,287
35314	Power cranes, (including locomotive full circle revolving with floor) draglines, shovels and parts...	(X)	(10-20)	(X)		3494 Valves and pipe fittings...	(X)	(X)	(5-10)
35441	Special dies and tools, die sets, jigs and fixtures.....	(X)	(over 2)	(X)		3519 Internal combustion engines...	(X)	(X)	39,885
35522	Parts and attachments for textile machinery.....	(X)	(2-5)	(X)		3522 Farm machinery and equipment	(X)	(X)	(10-20)
35662	Speed changers, industrial high speed drives and gears.....	(X)	(over 2)	(X)		3537 Industrial trucks and tractors.....	(X)	(X)	(over 2)
35663	Other mechanical power-transmission equipment.....	(X)	(20-50)	(X)		3562 Ball and roller bearings...	(X)	(X)	(over 2)
35673	High frequency induction and dielectric heating equipment and parts, attachments and components	(X)	(over 2)	(X)		3566 Power transmission equipment	(X)	(X)	32,231
35851	Heat transfer equipment.....	(X)	(50-100)	(X)		3569 General industry machines, n.e.c.....	(X)	(X)	6,461
36214	Prime mover generator sets, except steam or hydraulic turbine.....	(X)	(over 2)	(X)		3585 Refrigeration machinery....	(X)	(X)	(10-20)
36233	Resistance welders, components, accessories and electrodes....	(X)	(over 2)	(X)		3599 Miscellaneous machinery....	(X)	(X)	21,140
36343	Other small household electric appliances.....	(X)	(over 2)	(X)		3621 Motors and generators.....	(X)	(X)	(50-100)
36350	Household vacuum cleaners, including parts and attachments	(X)	(over 2)	(X)		3632 Household refrigerators.....	(X)	(X)	(over 2)
36424	Vehicular lighting equipment, electric.....	(X)	(over 2)	(X)		3634 Electric housewares and fans.....	(X)	(X)	(over 2)
36941	Ignition harness and cable sets..	(X)	(over 2)	(X)		3642 Lighting fixtures.....	(X)	(X)	(2-5)
36944	Spark plugs.....	(X)	(50-100)	(X)		3651 Radio and TV receiving sets..	(X)	(X)	(5-10)
37228	Missile and space vehicle engine and/or propulsion unit parts or accessories.....	(X)	(2-5)	(X)		3694 Engine electrical equipment.	(X)	(X)	81,481
37323	All other boats (sailboats, rowboats, canoes, etc.).....	(X)	(2-5)	(X)		3713 Truck and bus bodies.....	(X)	(X)	11,461
38214	Motor vehicle instruments, except electric.....	(X)	(20-50)	(X)		3715 Truck trailers.....	(X)	(X)	(2-5)
39991	Chemical fire extinguishing equipment and parts.....	(X)	(2-5)	(X)		3722 Aircraft engines and parts..	(X)	(X)	(5-10)
	Miscellaneous receipts.....	(X)	358,835	(X)		3729 Aircraft equipment, n.e.c....	(X)	(X)	5,577
	Contract work.....	(X)	11,787	(X)	37176	3821 Mechanical measuring devices.....	(X)	(X)	(over 2)
	Resales.....	(X)	174,554	(X)		2499 Wood products, n.e.c.....	(X)	(X)	(over 2)
	Other.....	(X)	172,494	(X)		3011 Tires and inner tubes.....	(X)	(X)	(over 2)
						3433 Heating equipment, except electric.....	(X)	(X)	(2-5)
						3519 Internal combustion engines.	(X)	(X)	(5-10)
						3522 Farm machinery and equipment	(X)	(X)	(2-5)
						3531 Construction machinery.....	(X)	(X)	7,378
						3553 Woodworking machinery.....	(X)	(X)	(over 2)
						3561 Pumps and compressors.....	(X)	(X)	2,514
						3566 Power transmission equipment	(X)	(X)	(5-10)
						3585 Refrigeration machinery....	(X)	(X)	(over 2)
						3599 Miscellaneous machinery....	(X)	(X)	3,347
						3694 Engine electrical equipment.	(X)	(X)	4,633
						3713 Truck and bus bodies.....	(X)	(X)	16,630
						3715 Truck trailers.....	(X)	(X)	10,486
						3729 Aircraft equipment, n.e.c....	(X)	(X)	(2-5)
						3799 Transportation equipment, n.e.c.....	(X)	(X)	3,083
						3821 Mechanical measuring devices	(X)	(X)	6,170
						3822 Automatic temperature controls.....	(X)	(X)	(over 2)
					37177	2531 Public building furniture...	(X)	(X)	(over 2)
					37174	3519 Internal combustion engines.	(X)	(X)	(over 2)
					37170	3531 Construction machinery.....	(X)	(X)	(over 2)

Note: Data shown parenthetically above are expressed in millions of dollars.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures of individual companies. (NA) Not available. (X) Not applicable.

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958**

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number)	Value (\$1,000)	Quantity (number)	Value (\$1,000)
3713- --	TRUCK, BUS, AND OTHER VEHICLE (EXCEPT PASSENGER CAR) BODIES FOR SALE SEPARATELY (INCLUDING THOSE MADE ON PURCHASED CHASSIS), AND COMPLETE VEHICLES (EXCEPT PASSENGER CARS) PRODUCED ON PURCHASED CHASSIS, TOTAL.....	(X)	419,747	(X)	274,893
	Truck, bus and other vehicle (except passenger car) bodies sold separately: <sup>1</sup>				
37130 12	To motor vehicle manufacturers.....	71,293	45,765	(NA)	14,543
	To other than motor vehicle manufacturers:				
	Truck bodies:				
37130 31	Van.....	30,612	43,997	15,585	22,866
37130 32	Panel delivery and pick up.....	15,678	18,941	6,310	7,646
37130 33	Dump.....	31,730	30,345	21,388	18,079
37130 34	Stake and platform.....	24,069	9,273	19,483	6,768
37130 36	Utility, including service and line construction, and repair types...	28,297	34,170	(NA)	48,628
37130 37	Tank, including street flushing, petroleum, and other tank types...	1,403	4,255		
37130 38	Refuse and garbage (packer type).....	4,863	22,106		
37130 39	Other.....	23,003	32,524		
37130 51	Bus bodies.....	18,270	41,345	20,842	45,652
37130 55	Other vehicle (except passenger car) bodies (ambulance, hearse, fire department, etc.).....	9,526	17,644	(NA)	33,209
	Complete vehicles (except passenger cars) produced on purchased chassis:				
37130 71	Ambulances.....	2,309	15,918	1,134	7,675
37130 75	Hearse and undertakers' vehicles (except limousines).....	1,308	9,788	1,170	9,438
37130 77	Fire department vehicles.....	1,277	13,556	1,038	11,380
37130 79	Busses (body mounted on purchased chassis), including military, but excluding trolley busses.....			553	4,805
37130 98	All other highway vehicles, including trucks (platform, stake, van, tank, dump, etc.), street cleaning apparatus, rotary and blow-type snowplows, pick-up sweepers, noncombat amphibious vehicles, etc.....	(X)	42,341	(X)	18,427
37130 99	Vehicles, except passenger cars, produced on purchased chassis (including value of chassis), n.s.k.....	(X)	10,136	(X)	7,327
37130 00	Truck and bus bodies, n.s.k.....	(X)	27,643	(X)	18,450
3715- --	TRUCK TRAILERS, TOTAL.....	(X)	484,678	(X)	283,998
37150 11	Truck trailers (5 ton capacity and over) as reported in census of manufactures <sup>2</sup> .....	(X)	451,276	(X)	270,521
	Truck trailers (5 ton capacity and over) as reported on Census form M37L <sup>2</sup> .				
	Vans, total.....	78,764	428,486	50,484	271,733
	Insulated, semi-insulated, and refrigerated, total.....	46,620	261,503	26,198	151,550
	Steel.....	8,856	70,418	4,029	30,896
	Aluminum.....	1,092	6,033	500	3,732
	Furniture, total.....	7,764	64,385	3,529	27,164
	Steel.....	2,551	14,227	1,485	6,531
	Aluminum.....	2,056	11,350	1,325	5,793
	All other closed-top vans, total.....	495	2,877	160	738
	Steel.....	31,900	159,913	18,311	101,976
	Aluminum.....	7,866	35,723	6,189	28,864
	Open-top, total.....	24,034	124,190	12,122	73,112
	Steel.....	3,313	16,945	2,373	12,147
	Aluminum.....	1,128	5,487	1,016	4,690
	Tank, total.....	2,185	11,458	1,357	7,457
	Non- and low-pressure:				
	Petroleum and aircraft refuelers, total.....	5,767	58,259	5,635	47,640
	Carbon and alloy steel (except stainless).....	3,428	33,087	4,010	31,047
	Stainless steel.....	1,002	7,314	2,329	15,158
	Aluminum.....	382	5,156	227	2,550
	Chemical, food, and sanitary.....	2,044	20,617	1,454	13,339
	Dry materials (cement, flour, feed, fertilizer, etc.).....	713	8,030	545	6,009
	High pressure (LPG, anhydrous ammonia, chemicals, etc.).....	1,188	11,318	704	6,155
	Pole and logging, total.....	438	5,824	376	4,429
	Single axle.....	1,069	3,927	927	2,577
	Tandem axle.....	129	220	318	424
		940	3,707	609	2,153

See footnotes at end of table.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number)	Value (\$1,000)	Quantity (number)	Value (\$1,000)
	Truck trailers (5 ton capacity and over) as reported on Census form M37L <sup>2</sup> —Continued				
	Platform, total.....	12,516	47,816	8,868	32,078
	Racks, livestock and stake.....	591	3,074	1,442	6,556
	Grain bodies, all types.....	578	2,503	1,073	3,718
	Platforms (flats), all types.....	11,347	42,239	6,353	21,804
	Low-bed heavy haulers.....	3,195	14,566	2,301	9,779
	Dump trailers.....	2,733	16,290	2,548	11,401
	All other trailers <sup>3</sup> .....	1,524	7,729	2,030	9,502
	Detachable trailer van bodies, sold separately.....	5,340	18,396	1,977	7,206
37150 51	Truck trailer chassis only, for sale separately, as reported in census of manufactures <sup>2</sup> .....	(X)	10,168	(X)	(X)
	Truck trailer chassis only, for sale separately, as reported on Census form M37L <sup>2</sup> .....	4,161	9,956	3,244	8,362
	Dump trailer chassis, sold separately.....	361	1,241	(NA)	(NA)
	Trailer chassis only, sold separately.....	3,800	8,715	3,244	8,362
37150 55	Truck trailers and truck trailer chassis with axles rated less than 10,000 pounds.....	6,952	10,468	6,230	13,477
37150 00	Truck trailers, n.s.k.....	(X)	12,766	(X)	-
3717- --	MOTOR VEHICLES AND PARTS.....	(X)	435,413,168	(X)	419,863,333
37171 --	Passenger cars, knocked down or assembled and chassis for sale separately.....	(X)	16,768,338	(X)	9,217,694
37171 11	Complete vehicles, knocked-down or assembled <sup>5</sup> .....	7,567,368	16,768,338	4,204,203	9,212,591
37171 51	Chassis for sale separately.....			(NA)	5,103
37172 --	Truck tractors, truck chassis and trucks (chassis of own manufacture).....	(X)	3,376,245	(X)	1,933,722
	Trucks, truck tractors, and truck chassis, knocked down or assembled: <sup>6</sup>				
	Basic chassis, gross vehicle weight: <sup>7</sup>				
37172 01	6,000 pounds and less.....	876,119	1,196,338		
37172 03	6,001-10,000 pounds.....	178,654	302,152	584,619	757,596
37172 13	10,001-14,000 pounds.....				
37172 14	14,001-16,000 pounds.....	25,100	48,735	64,560	117,417
37172 15	16,001-19,500 pounds.....	116,565	263,500	79,696	154,040
37172 16	19,501-26,000 pounds.....	109,912	353,166	44,738	142,189
37172 17	26,001-33,000 pounds.....	27,775	219,024	58,515	429,376
37172 18	Over 33,000 pounds.....	47,285	467,135		
	Truck bodies and other bodies (except bus and fire apparatus) and equipment billed with basic chassis:				
	Truck bodies:				
37172 33	Panel delivery and pick-up <sup>7</sup> .....	725,740	186,983	(X)	318,276
37172 36	Other <sup>7</sup> .....	294,538	296,028		
37172 39	Other bodies and equipment (except bus and fire apparatus) <sup>7</sup> .....	(X)	41,977		
37172 51	Other highway vehicles (except bus and fire apparatus) on chassis of own manufacture including non-combat amphibious vehicles.....	102	665	(NA)	14,828
37172 00	Truck trailers and other bodies (except bus and fire apparatus) and equipment billed with basic chassis, n.s.k.....	(X)	543	(X)	-
37173 --	Busses (except trolley busses) and fire department vehicles (chassis of own manufacture).....	(X)	182,453	(X)	99,216
37173 13	Busses (body mounted on chassis of own manufacture) including military, but excluding trolley busses.....	(NA)	155,544	3,311	81,018
37173 15	Busses (consisting of integrally constructed body-chassis frame usually rear-engine mounted).....				
37173 21	Fire department vehicles <sup>8</sup> .....	1,517	26,909	1,262	18,198
37174 11	Combat vehicles, wheeled tactical vehicles or carriers.....	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )
37175 --	Parts and accessories shipped to motor vehicle manufacturers for passenger cars, trucks, busses, and trailers (excluding rough steel forgings, rough castings and accessories such as leaf and coil springs, meters for motor vehicles, radios, distributors, generators and alternators, cranking motors, and selected motor vehicle indicating instruments).....	(X)	12,922,164	(X)	7,326,660
37175 15	Shipped to other plants of the same company <sup>10</sup> .....	(X)	10,072,963	(X)	7,305,567
37175 17	Shipped to other motor vehicle manufacturers <sup>10</sup> .....	(X)	180,078		
37175 71	Shipped to motor vehicle and parts manufacturers (including shipments to producers of motor vehicles (passenger cars, trucks, busses, truck trailers, and trailer coaches) and of bodies, parts, and accessories, including other plants of the same company) <sup>11</sup> .....	(X)	2,632,208		

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number)	Value (\$1,000)	Quantity (number)	Value (\$1,000)
37175 --	Parts and accessories shipped to motor vehicle manufacturers for passenger cars, trucks, busses, and trailers (excluding rough steel forgings, rough castings and accessories such as leaf and coil springs, meters for motor vehicles, radios, distributors, generators and alternators, cranking motors, and selected motor vehicle indicating instruments)—Continued				
37175 00	Automotive gasoline engines, new <sup>11</sup> .....	(X)	30,935	(X)	17,512
	Parts and accessories shipped to motor vehicle manufacturers for passenger cars, trucks, busses and tractors, n.s.k.....	(X)	5,980	(X)	3,581
37176 --	Parts and accessories for passenger cars, trucks and busses shipped to other than motor vehicle manufacturers.....	(X)	<sup>12</sup> 1,753,675	(X)	<sup>12</sup> 1,140,806
37176 11	Replacement parts and accessories for cars, trucks, busses, and trailers for domestic use, including purchased parts. (Includes shipments to distributors, dealers, jobbers, wholesalers, service stations, direct to fleet operators, governments and other consumers of motor vehicles, and subassembly rebuilders other than motor vehicle and motor vehicle parts manufacturers who also rebuild subassemblies. Does not include interplant transfers within a company; shipments to motor vehicle, body, parts, and accessory manufacturers; or export shipments of any kind, including bodies for mounting on old chassis) <sup>10</sup>	(X)	861,378	(X)	542,786
37176 15	Convertible tops for automobiles <sup>11</sup> .....	(X)	22,892	(X)	( <sup>13</sup> )
37176 21	Export shipments of parts and accessories for passenger cars, trucks, busses, and trailers, including purchased parts <sup>10</sup> .....	(X)	79,085	(X)	85,672
37176 31	Other parts and accessories for passenger cars, trucks, busses, and trailers <sup>11</sup> .....	(X)	758,436	(X)	439,623
37176 00	Replacement parts and accessories for cars, trucks, busses, and trailers for domestic use, including purchased parts, n.s.k.....	(X)	31,884	(X)	<sup>13</sup> 72,725
37177 11	Rebuilt motor vehicle engines and parts (except carburetors) <sup>11</sup> .....	(X)	188,295	(X)	79,891
37170 00	Motor vehicle parts, n.s.k.....	(X)	<sup>9</sup> 221,998	(X)	<sup>9</sup> 65,344

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.s.k. Not specified by kind.

<sup>1</sup>Truck and bus bodies built by garages, service stations and other establishments primarily engaged in nonmanufacturing activities are excluded.

<sup>2</sup>For these products, figures were also collected in the Bureau of the Census commodity survey program. In lieu of asking for detailed statistics on these products in the census of manufactures, respondents were asked to report only value of shipments for specified groups of products for which separate figures had previously been collected in the commodity survey. In most cases, the value figures reported in the census of manufactures for each group of products agreed closely with the corresponding figures reported in the commodity survey. However, there were differences between the census figures and the commodity survey figures. These variations were due primarily to the following reasons:

- Better coverage in the census of manufactures program. This includes many small establishments excluded from the monthly survey.
- Use of different reporting periods (calendar year vs. fiscal year).
- Use of estimates in reporting figures on the commodity survey, whereas census of manufactures figures generally represent more exact shipment figures.

<sup>3</sup>Includes small capacity trailers of special construction for the Defense Department, as well as auto transport, public utility trailers, converter dollies, and hoppers.

<sup>4</sup>The total value of shipments of products classified in industry 3717 includes extensive duplication arising from shipments between establishments in the same industry classification.

<sup>5</sup>Includes station wagons, ambulances, hearses, and taxicabs if produced on passenger car chassis. Value includes extra equipment billed with vehicles.

<sup>6</sup>Includes trucks such as pick-up, sedan delivery, panel, or other commercial cars made on passenger car chassis if these chassis were of own manufacture. Includes station wagons, hearses, and taxicabs if produced on truck chassis. Includes all truck chassis whether or not to be used for transportation of property, such as fire apparatus, street sprinklers, school busses, ambulances, etc. Excludes specialized road construction machinery and off-the-highway trucks.

<sup>7</sup>The sum of values reported for basic chassis and bodies (codes 3717201 through 3717218) and bodies and other equipment billed with basic chassis (codes 3717233, 3717236, and 3717239) represents the total value received from the sale of trucks, truck tractors, and truck chassis. Amounts reported for basic chassis values are based on average wholesale prices realized during 1963 and 1958. The amount reported for bodies and other equipment billed with basic chassis represents (1) the value received for bodies and other equipment shipped with the basic chassis; and (2) any plus or minus differences not included in the amounts reported for basic chassis due to the use of average wholesale prices for computing the values of the basic chassis.

<sup>8</sup>Separate figures are shown for fire department vehicles produced on purchased chassis (code 3713077) and for fire department vehicles produced on chassis of own manufacture (code 3717321). A small number of fire department vehicles, however, are produced on chassis furnished by customers.

<sup>9</sup>Product code 3717411 combined with 3717000 for security reasons, on advice from the Bureau of the Budget.

<sup>10</sup>Data are limited to establishments of companies producing motor vehicles or bodies.

<sup>11</sup>Data are limited to establishments of companies which do not produce motor vehicles or bodies.

<sup>12</sup>This figure is limited to shipments of products classified in industry 3717. There were additional shipments of motor vehicle parts by parts producers to other than motor vehicle manufacturers. This includes spark plugs, ignition coils, storage batteries, carburetors, pistons and piston rings, headlights, springs, and hardware which are classified outside the 3717 grouping and which approximated \$564 million in 1963 and \$498 million in 1958. Therefore, the total for 1963 was \$2,318 million. The comparable 1958 total was \$1,639 million.

<sup>13</sup>For 1958, product code 3717615 is combined with product code 3717600.



TABLE 6B. **Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

(Indexes of production and unit value are not shown for this area pending further review of the quantity data and associated values pertaining to these products.)

TABLE 6C. **Product Classes—Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
37130	Truck and bus bodies.....	419,747	419,695	312,784	341,084	327,953	274,893	215,184	197,464
37150	Truck trailers.....	484,678	(S)	(S)	(S)	(S)	283,998	262,012	139,413
3717	Motor vehicles and parts.....	35,413,168	31,856,689	25,136,202	29,110,103	25,685,228	19,863,333	(NA)	(NA)
37171	Passenger cars, knocked down or assembled and chassis for sale separately.....	16,768,338	15,052,678	11,787,593	14,009,262	11,998,836	9,217,694	9,471,779	4,085,547
37172	Truck tractors, truck chassis and trucks (chassis of own manufacture).....	3,376,245	3,009,641	2,375,828	2,572,695	2,490,117	1,933,722	1,732,114	1,619,773
37173	Motor coaches, except trolley busses and fire department vehicles (chassis of own manufacture).....	182,453	161,310	154,574	157,418	107,339	99,216	103,496	239,624
37174	Combat vehicles.....	( <sup>2</sup> )	(S)	(S)	(S)	(S)	( <sup>2</sup> )	(S)	(NA)
37175	Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers.....	12,922,164	11,650,233	9,138,661	10,687,796	9,481,696	7,326,660	(NA)	(NA)
37176	Parts and accessories for passenger cars, trucks, and busses, shipped to other than motor vehicle manufacturers.....	1,753,675	1,727,868	1,442,596	1,486,029	1,439,398	1,140,806	(NA)	(NA)
37177	Rebuilt automotive parts, excluding carburetors.....	188,295	110,413	101,505	99,091	96,443	79,891	56,683	(NA)
37170	Motor vehicles and parts, n.s.k.....	<sup>2</sup> 221,998	(S)	(S)	(S)	(S)	<sup>2</sup> 65,344	(NA)	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>2</sup>Product class 37174 combined with 37170 for security reasons, on advice from the Bureau of the Budget.

**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
TRUCK AND BUS BODIES FOR SALE SEPARATELY (INCLUDING THOSE MADE IN PURCHASED CHASSIS) (37130)			TRUCK TRACTOR, TRUCK CHASSIS, TRUCKS (CHASSIS OF OWN MANUFACTURE) (37172)—Continued			PARTS AND ACCESSORIES FOR PASSENGER CARS, TRUCKS AND BUSES SHIPPED TO OTHER THAN MOTOR VEHICLE MANUFACTURERS <sup>3</sup> (37176)—Con.		
United States, total.....	419,747	274,893	East North Central.....	1,809,731	1,010,684	East North Central.....	1,232,696	6,811,073
New England.....	5,974	3,902	Ohio.....	724,390	351,401	Ohio.....	254,562	1,659,389
Massachusetts.....	3,638	2,356	All other divisions.....	1,183,524	(2)	Indiana.....	118,199	638,926
Connecticut.....	1,335	(Z)				Illinois.....	123,155	333,803
Middle Atlantic.....	52,941	48,048	MOTOR COACHES, EXCEPT TROLLEY BUSES, AND FIRE DEPARTMENT VEHICLES (CHASSIS OF OWN MANUFACTURE) (37173)			Michigan.....	703,763	3,838,716
New York.....	20,603	23,655				Wisconsin.....	33,017	340,239
New Jersey.....	6,065	8,335				West North Central.....	104,870	273,991
Pennsylvania.....	26,273	16,058				Iowa.....	1,544	10,603
East North Central.....	192,787	121,468	United States, total.....	182,453	(NA)	Missouri.....	52,916	239,233
Ohio.....	76,786	58,558				South Atlantic.....	80,752	171,948
Indiana.....	37,352	24,674	Northeast.....	12,458	(NA)	Georgia.....	36,337	(2)
Illinois.....	17,508	16,679	East North Central.....	155,954	(NA)	Florida.....	1,836	1,011
Michigan.....	37,294	7,742	South.....	3,063	(NA)	East South Central.....	39,222	77,425
Wisconsin.....	23,847	13,814	Pacific.....	10,978	(NA)	Tennessee.....	11,548	24,435
West North Central.....	30,796	25,880	California.....	10,978	(NA)	Mississippi.....	17,370	6,854
Minnesota.....	5,922	4,173	PARTS AND ACCESSORIES FOR PASSENGER CARS, TRUCKING AND BUSES, SHIPPED TO MOTOR VEHICLE MANUFACTURERS (37175)			West South Central.....	18,203	14,340
Iowa.....	3,969	2,636				Arkansas.....	3,379	(2)
Missouri.....	17,889	16,858	United States, total.....	12,922,164	(3)	Oklahoma.....	4,335	2,369
Nebraska.....	1,854	1,337	Northeast.....	90,272	(3)	Texas.....	9,619	8,658
South Atlantic.....	36,977	23,776	Middle Atlantic.....	1,211,546	(3)	Mountain.....	6,595	7,218
Maryland.....	2,046	1,194	New York.....	959,418	(3)	Colorado.....	4,572	5,553
Virginia.....	3,824	1,868	New Jersey.....	12,738	(3)	Pacific.....	62,340	175,555
North Carolina.....	13,881	7,975	Pennsylvania.....	239,390	(3)	Oregon.....	4,039	3,361
South Carolina.....	1,008	(Z)	East North Central.....	10,664,657	(3)	California.....	55,708	168,775
Georgia.....	11,547	8,091	Ohio.....	2,590,069	(3)			
Florida.....	3,366	2,986	Indiana.....	1,121,582	(3)	REBUILT AUTOMOTIVE PARTS, EXCLUDING CARBURETORS (37177)		
East South Central.....	32,049	11,861	Illinois.....	416,608	(3)			
Tennessee.....	10,496	-	Michigan.....	5,971,885	(3)	United States, total....	188,295	(NA)
Alabama.....	6,414	2,137	Wisconsin.....	564,513	(3)	Northeast.....	24,929	(NA)
West South Central.....	18,066	12,174	West North Central.....	350,661	(3)	New Jersey.....	6,728	(NA)
Louisiana.....	3,105	-	Kansas.....	1,093	(3)	Pennsylvania.....	5,504	(NA)
Texas.....	7,775	6,491	South.....	398,496	(3)	East North Central.....	59,001	(NA)
Mountain.....	3,123	2,939	Kentucky.....	33,365	(3)	Ohio.....	16,126	(NA)
Colorado.....	1,759	(2)	Tennessee.....	39,272	(3)	Indiana.....	12,433	(NA)
Pacific.....	47,034	24,845	Alabama.....	11,174	(3)	Illinois.....	6,450	(NA)
Washington.....	2,423	(Z)	Oklahoma.....	1,913	(3)	Michigan.....	23,220	(NA)
Oregon.....	5,534	1,643	Texas.....	4,057	(3)	West North Central.....	13,779	(NA)
California.....	39,077	22,227	Mountain.....	6,340	(3)	Minnesota.....	4,327	(NA)
PASSENGER CARS, KNOCKED DOWN OR ASSEMBLED AND CHASSIS FOR SALE SEPARATELY (37171)			Pacific.....	200,192	(3)	Missouri.....	5,600	(NA)
United States, total.....	16,768,338	9,217,694				South Atlantic.....	15,147	(NA)
East North Central.....	8,485,788	4,425,031	PARTS AND ACCESSORIES FOR PASSENGER CARS, TRUCKS AND BUSES SHIPPED TO OTHER THAN MOTOR VEHICLE MANUFACTURERS <sup>3</sup> (37176)			Maryland.....	2,101	(NA)
Michigan.....	5,960,304	3,061,365				North Carolina.....	2,827	(NA)
Pacific.....	1,507,927	(2)	United States, total.....	1,753,675	38,467,466	Georgia.....	4,195	(NA)
California.....	1,507,927	(2)	Northeast.....	57,255	52,725	East South Central.....	12,445	(NA)
All other divisions.....	6,774,623	(2)	Massachusetts.....	28,912	23,398	Kentucky.....	5,934	(NA)
TRUCK TRACTOR, TRUCK CHASSIS, TRUCKS (CHASSIS OF OWN MANUFACTURE) (37172)			Connecticut.....	19,029	20,004	West South Central.....	35,443	(NA)
United States, total.....	3,376,245	1,933,722	Middle Atlantic.....	151,742	883,191	Oklahoma.....	14,238	(NA)
Middle Atlantic.....	382,990	312,255	New York.....	98,807	604,026	Texas.....	21,205	(NA)
			New Jersey.....	16,189	64,231	Mountain.....	1,879	(NA)
			Pennsylvania.....	36,746	214,934	Pacific.....	25,672	(NA)
						California.....	21,897	(NA)

Standard Notes: - Represents zero.  
applicable. (Z) Less than \$1 million reported.

(D) Withheld to avoid disclosing figures for individual companies.

(NA) Not available.

(X) Not

Footnotes continued on next page



Footnotes for Table 6D—37A—Continued

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 37130, Kentucky, Mississippi, Arkansas, Oklahoma; 37171, Massachusetts, New York, New Jersey, Ohio, Indiana, Illinois, Wisconsin, Minnesota, Missouri, Kansas, Delaware, Maryland, Virginia, Georgia, Kentucky, Texas; 37172, Connecticut, New York, New Jersey, Pennsylvania, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Missouri, Maryland, Virginia, Georgia, Kentucky, Texas, Washington, Oregon, California; 37173, Massachusetts, New York, Pennsylvania, Ohio, Indiana, Michigan, Wisconsin, Georgia; 37174, Connecticut, Pennsylvania, Ohio, Indiana; 37175, Maine, Massachusetts, Rhode Island, Connecticut, Minnesota, Iowa, Missouri, Nebraska, Delaware, Maryland, West Virginia, Georgia, Mississippi, Arkansas, Colorado, California; 37176, Rhode Island, Minnesota, Nebraska, Maryland, Virginia, North Carolina, Kentucky, Alabama, Washington; 37177, Massachusetts, New York, Kansas, South Carolina, Florida, Tennessee, Washington, Oregon.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

<sup>3</sup>For 1958, figures for product class 37175 are combined with those for product class 37176.

**TABLE 6E. Production and Use of Selected Parts of the Type Used for Passenger Cars, Trucks, and Busses: 1963 and 1958**

Product	Total number of units (1,000)					
	1963			1958		
	Produced <sup>1</sup>	Used in the assembly of new vehicles	For replacement, export, and other purposes <sup>2</sup>	Produced <sup>1</sup>	Used in the assembly of new vehicles	For replacement, export, and other purposes <sup>2</sup>
Engines, new (with or without cylinder heads, fuel pumps, water pumps, and other standard accessories):						
Gasoline.....	9,584	8,922	662	5,370	5,032	338
Diesel and semi-Diesel <sup>3</sup> .....	63	59	4	31	25	6
Cylinder heads.....	13,611	13,298	313	(NA)	(NA)	(NA)
Pistons:						
Aluminum*.....	75,866	64,745	11,121	(NA)	(NA)	(NA)
All other*.....	1,908	617	1,291	(NA)	(NA)	(NA)
Piston rings:						
Oil type*.....	176,758	72,916	103,842	135,312	37,295	98,017
Compression*.....	544,616	144,449	400,167	307,897	73,035	234,862
Valves (intake and exhaust)*.....	177,530	130,724	46,806	(NA)	(NA)	(NA)
Carburetors*.....	14,908	9,041	5,867	9,750	5,032	4,718
Fuel pump assemblies (excluding kits and rebuilds).....	17,942	8,981	8,961	10,989	5,057	5,932
Water pump assemblies (excluding kits and rebuilds).....	10,593	8,683	1,910	6,875	5,057	1,818
Radiators, complete.....	9,008	8,683	325	5,351	5,057	294
V-belts.....	45,399	23,315	22,084	(NA)	(NA)	(NA)
Oil filter elements.....	157,180	8,922	148,258	99,377	5,032	94,345
Exhaust systems:						
Mufflers, including regular or standard, sports or glass pack and resonators.....	33,343	11,521	21,822	<sup>4</sup> 30,686	<sup>4</sup> 6,946	<sup>4</sup> 23,740
Pipes, including exhaust, tail, intermediate, connecting and crossover.....	61,884	19,597	42,287	<sup>4</sup> 29,059	<sup>4</sup> 6,946	<sup>4</sup> 22,113
Transmissions (except auxiliary):						
Passenger car type:						
Conventional transmissions.....	2,261	1,952	309	1,174	1,038	136
Automatic transmissions (including semiautomatic).....	6,049	5,671	378	3,383	3,224	159
Truck and bus type:						
Conventional transmissions.....	1,354	1,277	77	983	916	67
Automatic transmissions (including semiautomatic).....	107	81	26	49	22	27
Clutch disc and facing assemblies.....	14,305	3,229	11,076	8,932	1,954	6,978
Universal joints.....	25,271	20,418	4,853	13,904	11,569	2,335
Rear axle shafts.....	17,715	17,030	685	9,940	9,304	636
Wheels for passenger cars.....	40,439	38,832	1,607	28,707	22,101	6,606
Wheels for trucks and busses.....	8,197	7,102	1,095	(NA)	(NA)	(NA)
Shock absorbers.....	48,706	34,016	14,690	(NA)	(NA)	(NA)
Ignition coils* <sup>3</sup> .....	18,354	8,922	9,432	9,637	5,032	4,605
Spark plugs* <sup>3</sup> .....	528,607	65,362	463,245	396,064	38,040	358,024
Regulators for battery charging generators:						
Passenger car and light truck type.....	14,686	8,474	6,212	10,237	4,740	5,497
Heavy duty truck and bus types.....	1,448	507	941	1,121	409	712
Condensers*.....	54,725	15,425	39,300	39,934	6,830	33,104
Breaker point sets:						
Contact arms*.....	102,268	8,852	93,416	49,726	3,690	46,036
Contact supports and screws*.....	(NA)	8,852	(NA)	34,926	3,690	31,236
Headlights, sealed beam units.....	78,569	38,519	40,050	53,050	19,724	33,326

Note: For products identified in this table with an asterisk, it was not considered feasible to request manufacturers to identify automotive type parts separately from similar parts used for tractors, construction machinery, boats, etc. For all other products, the manufacturers were instructed to report separately automotive type versus non-automotive type parts.

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>For those products classified in industry 3717, with the exception of fuel pumps, production figures exclude units produced by establishments in other industries. Although it is not possible to precisely measure the effect of this undercoverage, it is believed to be minor for most products.

<sup>2</sup>The number of motor vehicle parts for replacement, export and other purposes were derived by subtracting from the total number of units produced, the quantities used in the assembly of new vehicles as reported by motor vehicle assembly plants. <sup>3</sup>For these products, total number of units shipped were used instead of total number of units produced. <sup>4</sup>In 1958, these products were described respectively as "mufflers (exhaust)," and "muffler tail pipes."

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
INDUSTRY 3713.—TRUCK AND BUS BODIES						
	Materials, parts, containers and supplies, total.....		(X)	224,413	(X)	145,977
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	23,102	3,855	11,062	2,046
331012	Sheet and strip.....	..do.....	176,232	28,749	119,667	18,624
331013	Plates.....	..do.....	37,777	5,449	20,767	3,101
331015	Structural shapes.....	..do.....	21,437	3,335	12,163	1,987
331017	Wire and wire products.....	..do.....	529	232	1,015	348
331019	All other carbon steel mill shapes and forms.....	..do.....	18,922	3,813	5,533	1,042
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	338	82	838	480
331029	All other alloy mill shapes and forms.....	..do.....	2,411	505	1,016	246
331031	Stainless steel.....	..do.....	580	650	694	846
	Copper and copper-base alloy:					
335728	Bare wire for electrical conduction.....	1,000 lbs.....	-	-	165	85
335790	Insulated wire and cable.....	1,000 lbs. copper content.	149	96		
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	198	113	407	461
335123	Plate, sheet, and strip, including military cups and discs.....	..do.....		138		
335127	Pipe and tube.....	..do.....	217	138		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	..do.....	13,507	6,292	5,912	3,363
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	..do.....	6,534	2,766		
335209	All other aluminum mill shapes and forms (wire, rolled rod, bar, powder, welded tubing, etc.).....	..do.....	503	278	1,686	900
	Primary metals and scrap:					
331051	Pig iron (excluding silvery iron).....	Short tons.....	(D)	(D)	(NA)	(NA)
333401	Aluminum and aluminum-base alloy refinery shapes.....	..do.....	(D)	(D)	(NA)	(NA)
999811	Iron and steel scrap (purchased only).....	..do.....	(D)	(D)	(NA)	(NA)
	Castings (rough and semifinished):					
332011	Iron (gray and malleable).....	..do.....	2,650	905	1,378	516
332300	Steel.....	..do.....	1,316	847	1,280	446
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	190	163	151	155
336200	Copper and copper-base alloy.....	..do.....	82	72	109	148
	Forgings:					
339100	Iron and steel.....	Short tons.....	369	175	(NA)	(NA)
339200	Aluminum and aluminum-base alloy.....	1,000 lbs.....	(D)	(D)	(NA)	(NA)
362115	Fractional horsepower electric motors (under 1 hp.).....	Number.....	(D)	(D)	(NA)	(NA)
	Bearings:					
356218	Ball.....	.....	(X)	123	(X)	140
356228	Roller.....	.....				
229501	Coated, impregnated or laminated fabrics.....	1,000 lin. yds.	(D)	(D)	440	522
220119	Uncoated broad-woven fabrics (piece goods) (excluding cotton).....	..do.....	53	109	(NA)	(NA)
282130	Thermoplastic resins including modified resins.....	1,000 lbs. dry basis.....	121	60	(NA)	(NA)
282140	Thermosetting resins.....	..do.....	884	231	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	115,053	(X)	85,629
976000	Materials, parts, containers and supplies, n.s.k. <sup>1</sup> .....	.....	(X)	50,322	(X)	24,892
INDUSTRY 3715.—TRUCK TRAILERS						
	Materials, parts, containers, and supplies, total.....		(X)	298,517	(X)	192,664
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	17,865	3,175	10,236	1,726
331012	Sheet and strip.....	..do.....	106,922	17,136	55,461	8,748
331013	Plates.....	..do.....	42,340	6,172	25,331	3,889
331015	Structural shapes.....	..do.....			18,984	3,258
331017	Wire and wire products.....	..do.....	42,414	11,072	194	83
331019	All other carbon steel mills shapes and forms.....	..do.....			6,110	1,587

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3715.—TRUCK TRAILERS--Continued			
	Mill shapes and forms (except castings)—Continued					
331021	Alloy steel (except stainless):					
331029	Bars and bar shapes.....	Short tons.....	25,900	9,022	3,046	488
	All other alloy steel mill shapes and forms.....	...do.....				
331031	Stainless steel.....	...do.....			1,056	1,234
335790	Copper and copper-base alloy:					
	Insulated wire and cable.....	1,000 lbs. copper content.	773	433	148	122
335102	Rod, bar, and mechanical wire including extruded and/or drawn shapes.....	1,000 lbs.....	605	256	259	159
335123	Plate, sheet, and strip, including military cups and discs.....	...do.....				
335127	Pipe and tube.....	...do.....				
335202	Aluminum and aluminum-base alloy:					
335205	Sheet, plate and foil.....	...do.....	52,472	22,298	27,849	13,860
335209	Extruded shapes, including extruded rod, bar, pipe, tube, etc.	...do.....	54,857	20,010		
	All other aluminum mill shapes and forms (wire, rolled rod, bar, powder, welded tubing, etc.).....	...do.....	292	238	19,958	9,469
331051	Pig iron (excluding silvery iron).....	Short tons.....	(D)	(D)	(NA)	(NA)
999811	Scrap (excluding home scrap):					
999808	Iron and steel.....	...do.....	(D)	(D)	(NA)	(NA)
	Aluminum and aluminum-base alloy.....	...do.....	(D)	(D)	(NA)	(NA)
332011	Castings (rough and semifinished):					
332300	Iron (gray and malleable).....	...do.....	713	673	668	310
336100	Steel.....	...do.....	13,280	6,836	5,197	3,039
	Aluminum and aluminum-base alloy.....	1,000 lbs.....	566	367	281	315
339100	Forgings:					
339200	Iron and steel.....	Short tons.....	(D)	(D)	68	144
	Aluminum and aluminum-base alloy.....	1,000 lbs.....	168	110	(NA)	(NA)
356218	Bearings:					
356228	Ball.....	.....	(X)	284	(X)	651
	Roller.....	.....	(X)	1,047		
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	169,484	(X)	124,946
976000	Materials, parts, containers and supplies, n.s.k. <sup>1</sup> .....	.....	(X)	29,904	(X)	17,654
			INDUSTRY 3717.—MOTOR VEHICLES AND PARTS			
	Materials, parts, containers, and supplies, total.....	.....	(X)	23,517,962	(X)	14,188,996
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	1,006,392	164,965	770,277	126,930
331012	Sheet and strip.....	...do.....	11,215,348	1,635,877	6,615,120	934,845
331013	Plates.....	...do.....	333,775	48,140	220,096	33,043
331015	Structural shapes.....	...do.....	26,782	4,189	44,815	9,460
331017	Wire and wire products.....	...do.....	149,399	35,017	95,792	22,080
331019	All other carbon steel mill shapes and forms.....	...do.....	280,386	58,331	122,071	32,031
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	...do.....	534,059	111,701	334,202	70,211
331029	All other alloy mill shapes and forms.....	...do.....	81,156	37,838	162,490	35,252
331031	Stainless steel.....	...do.....	37,698	31,657	24,231	26,781
335728	Copper and copper-base alloy:					
335790	Bare wire for electrical conduction.....	1,000 lbs.....	1,731	1,130	1,560	770
	Insulated wire and cable.....	1,000 lbs. copper content.	31,304	15,484	6,034	4,951
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	50,432	18,329	167,955	78,078
335123	Plate, sheet, and strip.....	...do.....	163,608	74,415		
335127	Pipe and tube.....	...do.....	13,112	7,523		
335202	Aluminum and aluminum-base alloy:					
335205	Sheet, plate, and foil.....	...do.....	77,452	33,393	19,162	10,761
335209	Extruded shapes, including extruded rod, bar, pipe, tube, etc.	...do.....	22,785	11,196		
	All other aluminum mill shapes and forms (wire, rolled rod, bar, powder, welded tubing, etc.).....	...do.....	17,342	5,274	31,123	11,391

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3717.—MOTOR VEHICLES AND PARTS—Continued			
331051	Primary metals:					
333401	Pig iron (excluding silvery iron).....	Short tons.....	239,048	13,869	222,568	15,447
	Aluminum and aluminum-base alloy.....	...do.....	33,331	13,418	2,425	1,622
999811	Scrap (purchased scrap only):					
999808	Iron and steel.....	...do.....	330,649	13,346	409,387	9,541
	Aluminum and aluminum-base alloy.....	...do.....	128	54	3,920	1,773
332011	Castings (rough and semifinished):					
332300	Iron (gray and malleable) <sup>2</sup> .....	...do.....	2,979,003	751,493	1,907,070	466,939
336100	Steel.....	...do.....	59,296	27,723	62,827	23,349
336200	Aluminum and aluminum-base alloy.....	1,000 lbs.....	430,205	225,288	146,993	71,612
	Copper and copper-base alloy.....	...do.....	8,131	5,590	4,037	2,487
339100	Forgings:					
339200	Iron and steel <sup>3</sup> .....	Short tons.....	999,528	390,967	654,194	221,968
	Aluminum and aluminum-base alloy.....	1,000 lbs.....	1,403	974	(NA)	(NA)
362115	Fractional horsepower electric motors.....	Thousands.....	7,233	20,968	6,726	22,126
356218	Bearings:					
356228	Ball.....	.....	(X)	47,724	} (X)	90,264
	Roller.....	.....	(X)	108,978		
229501	Coated, impregnated or laminated fabrics.....	1,000 lin. yds..	18,590	18,333	11,026	18,051
221103	Uncoated broad-woven fabrics:					
220119	Cotton.....	...do.....	4,948	1,395	2,912	2,469
	Other broad-woven fabrics.....	...do.....	5,201	11,247	3,327	9,294
282130	Thermoplastic resins.....	1,000 lbs.....	22,096	9,573	(NA)	(NA)
282140	Thermosetting resins.....	...do.....	22,133	9,722	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	18,824,923	} (X)	11,835,470
976000	Materials, parts, containers, and supplies, n.s.k. <sup>1</sup> .....	.....	(X)	727,918		

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.s.k. Not specified by kind.

<sup>1</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

<sup>2</sup>Establishments in industry 3717 produced 663,642 tons of iron castings in 1963 for incorporation into other items produced at the same establishment. In 1958 this figure was 479,177 tons.

<sup>3</sup>Establishments in industry 3717 produced 300,184 tons of iron and steel forgings in 1963 for incorporation into other items produced at the same establishment.



**TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962**

Item	Truck and bus bodies (SIC 3713)	Truck trailers (SIC 3715)	Motor vehicles and parts (SIC 3717)
Total cost of purchased fuels and electric energy.....\$1,000..	3,913	3,324	180,326
Total cost of purchased fuels.....do....	1,515	1,309	72,902
Bituminous coal, lignite, and anthracite:			
Quantity.....1,000 short tons..	19	10	3,069
Cost.....\$1,000..	177	90	24,142
Coke and breeze:			
Quantity.....1,000 short tons..	-	(S)	(S)
Cost.....\$1,000..	-	(S)	(S)
Fuel oil (distillate and residual):			
Quantity.....1,000 barrels of 42 gallons..	72	(S)	(S)
Cost.....\$1,000..	324	(S)	(S)
Gas (natural, manufactures, still, blast furnace, and coke oven):			
Quantity.....million cu.ft..	1,115	681	45,464
Cost.....\$1,000..	741	392	24,522
Other fuels.....do....	273	207	11,739
Electric energy:			
Purchased:			
Quantity.....million kw.-hrs..	119	179	9,898
Cost.....\$1,000..	2,398	2,015	107,424
Generated less sold.....million kw.-hrs..	-	-	195
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31, 1962), total.....1,000 hp..	81	120	5,851
Prime movers, total.....do....	6	26	690
Driving generators.....do....	2	11	111
Not driving generators.....do....	4	15	579
Electric motors, total.....do....	75	95	5,251
Driven by purchased energy.....do....	75	95	5,161
Driven by energy generated at establishment.....do....	-	-	90
Aggregate horsepower per 100 production workers.....	-	-	1,144

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3713-	TRUCK AND BUS BODIES										
	Entire industry.....	610	24,466	133,300	19,729	40,897	98,359	229,472	250,217	476,733	6,554
	Establishments with—										
	90% or more specialization...	494	16,292	86,752	13,322	27,646	64,978	145,849	160,995	305,015	4,904
	75-89% specialization.....	42	3,325	18,254	2,732	5,566	13,299	32,034	37,020	68,287	748
3717-	MOTOR VEHICLES AND PARTS										
	Entire industry.....	1,958	649,926	4,947,271	535,842	1,192,606	3,889,636	12,345,630	23,889,431	36,181,007	643,555
	Establishments with—										
	90% or more specialization...	1,697	550,104	4,224,062	454,964	1,018,328	3,337,608	10,974,898	22,587,260	33,520,494	558,132
	75-89% specialization.....	88	47,106	363,733	38,819	86,584	286,812	640,880	772,378	1,464,922	44,074
37171	Passenger cars, knocked down or assembled and chassis for sale separately (primary product class of estab.).....	54	172,665	1,433,781	141,288	332,818	1,130,232	5,195,695	14,175,101	19,352,160	197,319
37172	Truck tractors, truck chassis, trucks (chassis of own manufacture) (primary product class of estab.).....	59	48,215	334,579	37,510	75,087	244,351	563,381	1,757,432	2,329,262	53,341
	Establishments with—										
	90% or more specialization...	29	13,731	99,541	10,717	21,569	73,395	166,497	589,290	752,271	6,290
37173	Motor coaches, except trolley busses and fire department vehicles (chassis of own manufacture) (primary product class of estab.).....	15	2,894	17,636	2,190	4,488	11,992	26,854	39,900	67,055	376
	Establishments with—										
	90% or more specialization...	9	1,140	7,834	761	1,667	4,856	10,225	16,902	28,305	174
37175	Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers (primary product class of estab.).....	461	375,216	2,880,232	314,592	697,148	2,308,910	5,962,734	7,390,028	13,317,002	319,031
	Establishments with—										
	90% or more specialization...	306	221,737	1,712,680	188,718	421,758	1,397,942	3,717,262	5,068,812	8,759,568	191,044
	75-89% specialization.....	63	81,845	656,431	67,049	150,885	515,917	1,199,308	1,469,748	2,656,797	62,662
37176	Parts and accessories for passenger cars, trucks, and busses, shipped to other than motor vehicles manufacturers (primary product class of estab.).....	695	36,237	207,386	28,321	58,319	140,757	439,122	399,296	833,603	35,446
	Establishments with—										
	90% or more specialization...	557	17,794	91,949	14,504	30,622	64,866	224,496	218,768	440,100	26,151
	75-89% specialization.....	54	5,640	32,414	4,496	9,067	22,617	77,423	62,191	138,452	2,380
37177	Rebuilt automotive parts, excluding carburetors (primary products class of estab.).....	203	10,295	51,105	8,486	17,712	37,636	112,518	81,096	190,968	20,767
	Establishments with—										
	90% or more specialization...	178	8,832	43,737	7,335	15,258	32,205	98,342	70,894	166,721	17,787
	75-89% specialization.....	9	504	2,724	408	884	2,151	7,110	3,505	10,897	2,080



TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
INDUSTRY 3713.—TRUCK AND BUS BODIES								
Ferrous foundry.....	1	1	-	-	(D)	(D)	-	-
Nonferrous foundry (except die casting).....	1	1	-	-	(D)	(D)	-	-
Nonferrous die casting.....	1	1	-	-	(D)	(D)	-	-
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	8	6	2	-	24	(D)	(D)	-
Electroplating and other plating.....	1	1	-	-	(D)	(D)	-	-
Automatic screw machine department.....	2	1	1	-	(D)	(D)	(D)	-
Machine shop.....	50	32	12	6	551	60	132	359
Tool and die shop.....	22	9	12	1	121	13	(D)	(D)
Foundry pattern shop.....	7	5	2	-	25	(D)	(D)	-
Plate or structural fabrication.....	75	46	22	7	514	85	207	222
Stamping, blanking and forming of metals.....	101	59	20	22	1,528	116	196	1,216
Painting, lacquering and enameling on metals.....	174	127	34	13	1,086	237	265	584
Plastics molding.....	9	6	3	-	45	16	29	-
Assembly of product.....	164	30	77	57	6,229	40	788	5,401
Shipping department, including packing and crating...	106	81	22	3	433	134	173	126
INDUSTRY 3715.—TRUCK TRAILERS								
Ferrous foundry.....	1	-	-	1	(D)	-	-	(D)
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	1	-	1	-	(D)	-	(D)	-
Electroplating and other plating.....	2	1	1	-	(D)	(D)	(D)	-
Galvanizing and other hot dip coating.....	1	1	-	-	(D)	(D)	-	-
Heat treating of metals.....	3	2	-	1	(D)	(D)	-	(D)
Machine shop.....	44	23	13	8	491	47	153	291
Tool and die shop.....	12	7	3	2	92	(D)	27	(D)
Foundry pattern shop.....	4	2	2	-	18	(D)	(D)	-
Plate or structural fabrication.....	52	16	21	15	924	34	213	677
Stamping, blanking and forming of metals.....	53	18	23	12	875	40	246	589
Painting, lacquering and enameling on metals.....	73	52	14	7	471	106	111	254
Plastics molding.....	5	4	-	1	(D)	(D)	-	(D)
Assembly of product.....	78	9	22	47	7,623	11	235	7,377
Shipping department, including packing and crating...	57	43	12	2	214	(D)	93	(D)
INDUSTRY 3717.—MOTOR VEHICLES AND PARTS								
Ferrous foundry.....	19	4	1	14	6,943	(D)	(D)	6,930
Nonferrous foundry.....	13	3	5	5	339	5	56	278
Nonferrous die casting.....	26	8	6	12	900	16	61	823
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	47	8	14	25	3,433	12	159	3,262
Electroplating and other plating.....	95	42	23	30	3,291	93	213	2,985
Galvanizing and other hot dip coating.....	35	23	9	3	203	51	79	73
Heat treating of metals.....	171	66	52	53	3,915	140	486	3,289
Automatic screw machine department.....	140	51	46	43	3,180	104	459	2,617
Machine shop.....	468	107	119	242	65,026	196	1,228	63,602
Tool and die shop.....	319	84	91	144	23,459	165	951	22,343
Foundry pattern shop.....	32	10	10	12	736	17	83	636
Plate or structural fabrication.....	70	22	26	22	3,241	46	252	2,943
Stamping, blanking and forming of metals.....	417	94	124	199	58,303	187	1,201	56,915
Painting, lacquering and enameling on metals.....	402	216	86	100	21,567	364	602	20,601
Plastics molding.....	26	9	12	5	502	21	90	391
Assembly of product.....	590	111	114	365	244,269	203	1,189	242,877
Shipping department, including packing and crating...	612	291	165	156	16,236	586	1,643	14,007

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

Item	Truck and bus bodies (SIC 3713)	Truck trailers (SIC 3715)	Motor vehicles and parts (SIC 3717)
Total number of establishments in the industry.....	610	197	1,958
Number of establishments which reported one or more of the specified operations.....	216	95	830
Percent of industry production workers in these establishments.....	70-75	80-85	85-90
Number of establishments which reported "none" of the operations apply.....	57	30	136
Percent of industry production workers in these establishments.....	5-10	0-5	0-5
Percent of industry production workers in establishments which completed the metal working operations inquiry.....	75-80	85-90	90-95

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.

## AIRCRAFT AND PARTS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

3721—Aircraft

3722—Aircraft Engines and Engine Parts

3723—Aircraft Propellers and Propeller Parts

3729—Aircraft Parts and Auxiliary Equipment, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3721—AIRCRAFT

This industry comprises establishments primarily engaged in manufacturing or assembling complete aircraft. This industry includes establishments primarily engaged in factory type aircraft modification on a contract or fee basis. Establishments primarily engaged in manufacturing engines, propellers, and other aircraft parts and auxiliary equipment are classified in industries 3722, 3723, and 3729. For a detailed list of products of industry 3721, refer to table 6A, product codes 3721111 to 3721655.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

In industry 3721 there is usually a significant difference between value of actual physical shipments and value of work done during a specified period. This is primarily due to lead time between the input of materials and labor and the shipments of completed aircraft. In evaluating the internal relationships of the Aircraft Industry, such as the ratio of cost of materials or payrolls to output, the value of aircraft shipments for the year is generally not meaningful and value of work done is therefore substituted. For the 1963 Census of Manufactures, establishments producing military, personal, utility, and commercial aircraft were requested to report both the value of shipments of aircraft and value of work done during the year. This latter statistic included total costs (materials, labor, overhead, etc.) and reflected the value of work done during 1963, including work done on aircraft not accepted during the year, but excluding the value of work done in prior years.



Value of work done and other receipts of the Aircraft Industry totaled \$6,317 million. This amount included work done on aircraft (primary products) valued at \$4,164 million, shipments of other products (secondary products) valued at \$1,898 million, and miscellaneous receipts (mainly resales) at \$254 million.

This industry's work done on aircraft represented 69 percent of its total product shipments. The industry specialization ratio in 1958 was 81 percent. Secondary products shipped by this industry in 1963 consisted mainly of aircraft parts and auxiliary equipment (\$714 million), and guided missiles and space vehicles, complete (\$372 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 54 percent of the total industry shipments are represented by plants specializing in product class 37211, Complete military aircraft.

Work done on aircraft by this industry in 1963 represented 96 percent of all work done on these products (\$4,331 million) by all industries. In 1958 the coverage ratio was 99 percent.

#### 3722—AIRCRAFT ENGINES AND ENGINE PARTS

This industry comprises establishments primarily engaged in the manufacture of aircraft engines, complete missile or space vehicle engines and/or propulsion units, and their parts. For a detailed list of products of industry 3722, refer to table 6A, product codes 3722110 to 3722813.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Aircraft Engines and Parts Industry totaled \$4,101 million. This amount included shipments of aircraft engines and engine parts (primary products) valued at \$3,367 million, shipments of other products (secondary products) valued at \$495 million, and miscellaneous receipts (mainly resales) at \$238 million.

This industry's shipments of aircraft engines and engine parts represented 87 percent of its total product shipments. The industry specialization ratio in 1958 was 94 percent. Secondary products shipped by this industry in 1963 included guided missile components and subassemblies, n.e.c. (\$128 million), and aircraft parts and auxiliary equipment, n.e.c. (\$35 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 40 percent of the total industry shipments are represented by plants specializing in product class 37221, Aircraft engines for military customers; 25 percent in product class 37226, Receipts for research and development on complete missile or space vehicle engines and/or propulsion units; and 18 percent in product class 37224, Aircraft engine parts and accessories.

Shipments of aircraft engines and engine parts by this industry represented 93 percent of all shipments of these products (\$3,610 million) by all industries. In 1958 the coverage ratio was also 93 percent. Other industries shipping aircraft engines and engine parts included industry 3729, Aircraft Equipment, N.E.C., \$18 million; and industry 3494, Valves and Pipe Fittings, \$13 million.

### 3723—AIRCRAFT PROPELLERS AND PROPELLER PARTS

This industry comprises establishments primarily engaged in manufacturing aircraft propellers and propeller parts. For a detailed list of products of industry 3723, refer to table 6A, product codes 3723010 to 3723051.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Aircraft Propellers and Parts Industry totaled \$191 million. This amount included shipments of aircraft propellers and propeller parts (primary products) valued at \$88 million, shipments of other products (secondary products) valued at \$95 million, and miscellaneous receipts at \$8 million.

This industry's shipments of aircraft propellers and parts represented 48 percent of its total product shipments. The industry specialization ratio in 1958 was 75 percent.

Shipments of aircraft propellers and parts by this industry represented 81 percent of all shipments of these products (\$109 million) by all industries. In 1958 the coverage ratio was 95 percent.

### 3729—AIRCRAFT PARTS AND AUXILIARY EQUIPMENT, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing aircraft parts and auxiliary equipment, n.e.c., including nose cones for guided missiles. Establishments primarily engaged in manufacturing or assembling complete aircraft are classified in industry 3721, aircraft engines and parts in industry 3722, propellers and propeller parts in industry 3723, aeronautical instruments in industry 3811, and aeronautical electrical equipment in industry 3694. For a detailed list of products of industry 3729, refer to table 6A, product codes 3729113 to 3729439.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Aircraft Equipment, N.E.C., Industry totaled \$3,169 million. This amount included shipments of aircraft equipment, n.e.c. (primary products) valued at \$2,254 million, shipments of other products (secondary products) valued at \$761 million, and miscellaneous receipts at \$153 million.

This industry's shipments of aircraft equipment, n.e.c., represented 75 percent of its total product shipments. The industry specialization ratio in 1958 was 84 percent. Secondary products shipped by this industry in 1963 included research and development on guided missiles (complete) (\$108 million), and aircraft engine parts (\$18 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 59 percent of the total industry shipments are represented by plants specializing in product class 37291, Aircraft parts and auxiliary equipment, n.e.c.; and 25 percent in product class 37292, Guided missile components and subassemblies, n.e.c.

Shipments of aircraft equipment, n.e.c., by this industry represented 59 percent of all shipments of these products (\$3,792 million) by all industries. In 1958 the coverage ratio was 63 percent.



# AIRCRAFT AND PARTS: SIC 372

## Value Added by Manufacture by State: 1963

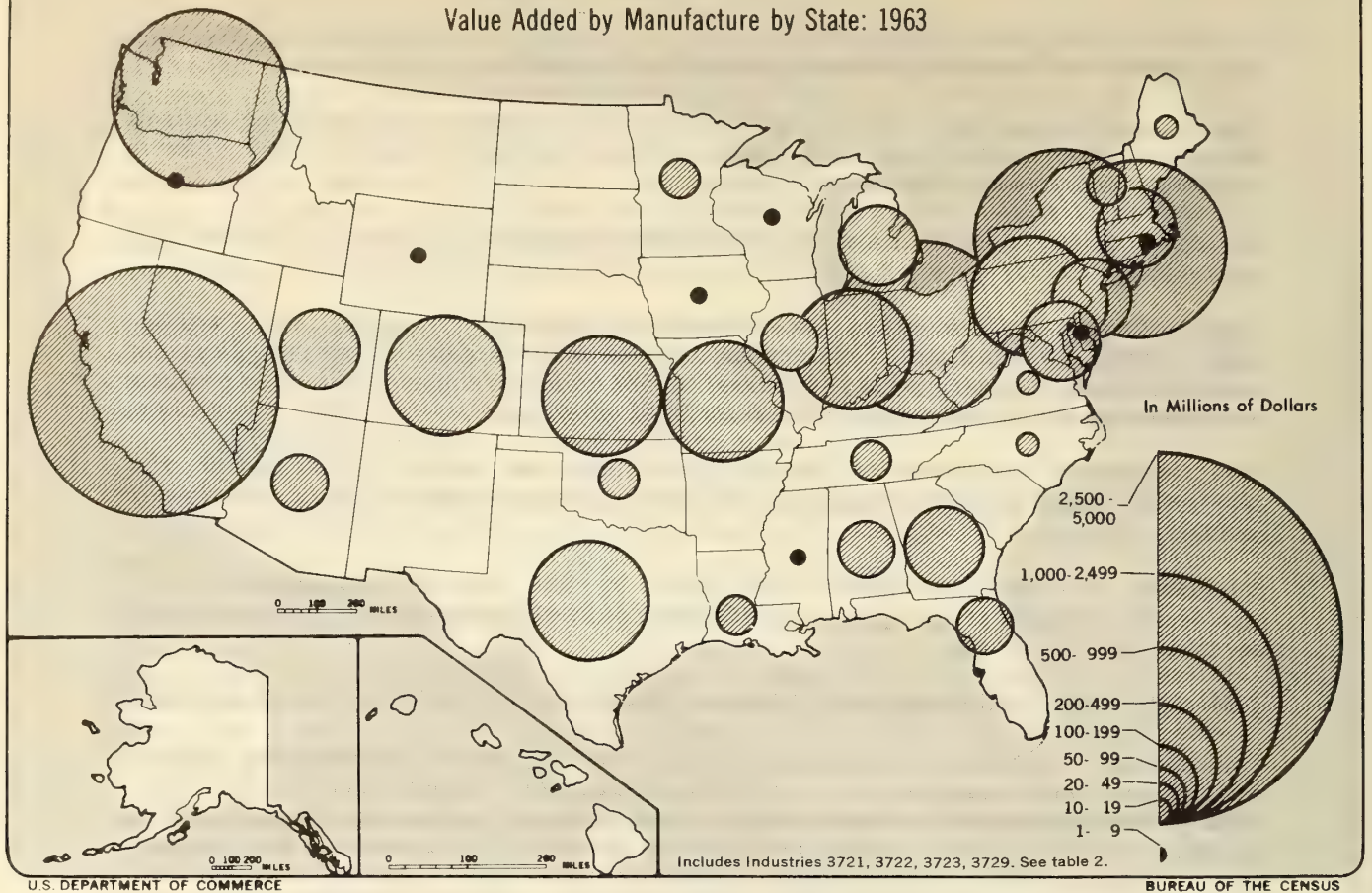


TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spec- ializa- tion ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3721. —AIRCRAFT														
1963.....	82	100	65	302,201	2,369,416	166,744	342,120	1,097,103	13,542,695	2,773,836	26,316,531	114,658	69	96
1962 <sup>3</sup> .....	(NA)	(NA)	(NA)	326,140	2,468,712	180,369	378,192	1,131,358	13,363,486	2,842,279	26,205,647	119,655	(NA)	(NA)
1961 <sup>3</sup> .....	(NA)	(NA)	(NA)	305,435	2,205,508	172,942	351,726	1,023,524	13,046,923	2,953,275	26,000,080	71,816	(NA)	(NA)
1960 <sup>3</sup> .....	(NA)	(NA)	(NA)	302,428	2,084,943	177,567	366,374	1,043,943	13,044,749	2,874,174	25,920,180	62,755	(NA)	(NA)
1959 <sup>3</sup> .....	(NA)	(NA)	(NA)	369,253	2,419,610	225,581	461,834	1,248,162	13,305,013	3,503,653	26,808,666	89,695	(NA)	(NA)
1958.....	113	127	82	377,383	2,340,306	251,249	508,195	1,334,705	13,399,163	3,038,904	26,438,067	94,167	81	93
1957 <sup>3</sup> .....	(NA)	(NA)	(NA)	555,735	3,191,272	358,910	727,899	1,814,568	14,544,653	3,902,226	28,419,451	191,479	86	98
1956 <sup>3</sup> .....	(NA)	(NA)	(NA)	501,664	2,880,902	336,538	699,604	1,683,329	13,880,671	3,026,237	26,846,165	150,615	(NA)	(NA)
1955 <sup>3</sup> .....	(NA)	(NA)	(NA)	466,888	2,467,116	319,963	650,576	1,510,377	13,285,543	2,920,612	25,677,097	74,577	(NA)	(NA)
1954.....	46	72	69	457,618	2,277,320	320,445	654,781	1,441,632	13,368,747	3,193,829	26,562,576	59,446	89	99
1953 <sup>3</sup> .....	(NA)	(NA)	(NA)	439,390	2,126,719	315,401	663,082	1,371,973	2,811,927	(NA)	(NA)	(NA)	(NA)	(NA)
1952 <sup>3</sup> .....	(NA)	(NA)	(NA)	416,645	1,868,552	303,842	642,431	1,239,059	2,508,640	(NA)	(NA)	(NA)	(NA)	(NA)
1951 <sup>3</sup> .....	(NA)	(NA)	(NA)	311,505	1,309,261	231,659	(NA)	905,684	1,614,700	(NA)	(NA)	(NA)	(NA)	(NA)
1950 <sup>3</sup> .....	(NA)	(NA)	(NA)	186,020	712,427	136,890	289,833	480,268	907,880	(NA)	(NA)	(NA)	(NA)	(NA)
1949 <sup>3</sup> .....	(NA)	(NA)	(NA)	168,206	602,545	125,395	258,941	406,690	779,552	(NA)	(NA)	(NA)	(NA)	(NA)
1947.....	47	58	50	146,625	462,906	110,332	221,796	316,795	605,983	( <sup>4</sup> )	( <sup>4</sup> )	(NA)	(NA)	(NA)
1939 <sup>5</sup> .....	(NA)	44	(NA)	(NA)	(NA)	34,159	(NA)	52,813	112,343	( <sup>4</sup> )	( <sup>4</sup> )	(NA)	(NA)	(NA)
INDUSTRY 3722. —AIRCRAFT ENGINES AND PARTS														
1963.....	194	232	172	190,834	1,486,081	105,890	222,000	705,727	2,244,317	1,876,762	4,100,520	111,529	87	93
1962 <sup>3</sup> .....	(NA)	(NA)	(NA)	178,635	1,331,068	103,049	216,042	645,986	1,984,030	1,686,604	3,660,522	78,487	(NA)	(NA)
1961 <sup>3</sup> .....	(NA)	(NA)	(NA)	162,877	1,162,559	94,068	197,606	571,305	1,759,264	1,507,035	3,242,436	54,379	(NA)	(NA)
1960 <sup>3</sup> .....	(NA)	(NA)	(NA)	165,766	1,144,770	94,600	197,341	556,571	1,633,040	1,473,211	3,094,887	46,685	(NA)	(NA)
1959 <sup>3</sup> .....	(NA)	(NA)	(NA)	171,756	1,158,468	101,197	212,904	581,880	1,813,745	1,676,619	3,507,128	64,093	(NA)	(NA)
1958.....	186	223	175	159,094	999,237	94,531	194,858	509,724	1,615,671	1,719,082	3,512,073	55,883	94	93
1957 <sup>3</sup> .....	(NA)	(NA)	(NA)	181,177	1,033,320	113,074	236,575	587,835	1,752,206	1,999,672	3,707,014	108,501	93	94
1956 <sup>3</sup> .....	(NA)	(NA)	(NA)	165,146	938,491	108,932	232,954	557,321	1,557,844	1,569,771	2,957,952	94,962	(NA)	(NA)
1955 <sup>3</sup> .....	(NA)	(NA)	(NA)	148,785	769,692	97,955	205,217	455,195	1,288,257	1,474,204	2,792,603	57,327	(NA)	(NA)
1954.....	202	234	183	167,383	819,181	117,277	243,536	522,850	1,435,443	1,753,507	3,268,863	46,689	93	91
1953 <sup>3</sup> .....	(NA)	(NA)	(NA)	187,426	919,950	135,443	292,680	619,590	1,614,748	(NA)	(NA)	(NA)	(NA)	(NA)
1952 <sup>3</sup> .....	(NA)	(NA)	(NA)	153,199	743,372	111,165	247,064	511,875	1,148,345	(NA)	(NA)	(NA)	(NA)	(NA)
1951 <sup>3</sup> .....	(NA)	(NA)	(NA)	107,242	499,479	77,297	176,553	343,740	665,214	(NA)	(NA)	(NA)	(NA)	(NA)
1950 <sup>3</sup> .....	(NA)	(NA)	(NA)	67,603	278,759	48,464	104,945	186,219	447,211	(NA)	(NA)	(NA)	(NA)	(NA)
1949 <sup>3</sup> .....	(NA)	(NA)	(NA)	59,863	228,368	45,556	90,987	152,952	381,212	377,914	759,126	(NA)	(NA)	(NA)
1947.....	(NA)	59	(NA)	50,423	166,308	36,019	(NA)	110,716	252,254	212,369	464,623	(NA)	90	95
1939 <sup>5</sup> .....	(NA)	20	(NA)	(NA)	(NA)	9,445	(NA)	17,041	50,928	31,276	82,204	(NA)	(NA)	(NA)
INDUSTRY 3723. —AIRCRAFT PROPELLERS AND PARTS														
1963.....	13	14	8	11,183	78,712	6,231	13,515	37,666	113,433	69,829	190,761	6,045	48	81
1962 <sup>3</sup> .....	(NA)	(NA)	(NA)	9,764	72,260	5,687	13,053	36,150	99,055	63,806	157,320	3,964	(NA)	(NA)
1961 <sup>3</sup> .....	(NA)	(NA)	(NA)	10,526	70,436	5,535	12,221	34,290	87,543	60,618	157,395	3,871	(NA)	(NA)
1960 <sup>3</sup> .....	(NA)	(NA)	(NA)	10,742	71,521	5,913	12,240	34,958	101,434	65,449	163,692	2,107	(NA)	(NA)
1959 <sup>3</sup> .....	(NA)	(NA)	(NA)	11,384	72,767	6,852	14,098	38,732	95,369	74,726	173,790	(2,442)	(NA)	(NA)
1958.....	17	18	10	15,505	85,635	9,617	19,363	49,478	112,301	106,642	235,270	5,107	75	95
1957 <sup>3</sup> .....	(NA)	(NA)	(NA)	17,567	98,415	11,981	23,493	60,838	156,119	115,131	265,871	14,452	(NA)	(NA)
1956 <sup>3</sup> .....	(NA)	(NA)	(NA)	13,655	80,165	9,417	19,332	48,542	126,597	85,462	195,348	7,580	(NA)	(NA)
1955 <sup>3</sup> .....	(NA)	(NA)	(NA)	12,247	65,263	8,213	17,225	39,669	96,939	72,042	167,906	2,947	(NA)	(NA)
1954.....	16	16	13	16,523	78,058	11,647	22,179	49,135	99,455	106,566	215,213	4,320	84	87
1953 <sup>3</sup> .....	(NA)	(NA)	(NA)	18,041	85,506	13,354	27,334	59,013	129,601	(NA)	(NA)	(NA)	(NA)	(NA)
1952 <sup>3</sup> .....	(NA)	(NA)	(NA)	13,880	67,440	9,944	21,771	46,233	70,831	(NA)	(NA)	(NA)	(NA)	(NA)
1951 <sup>3</sup> .....	(NA)	(NA)	(NA)	10,783	52,030	7,512	16,850	34,396	66,725	(NA)	(NA)	(NA)	(NA)	(NA)
1950 <sup>3</sup> .....	(NA)	(NA)	(NA)	8,675	35,602	5,739	11,672	21,937	50,468	(NA)	(NA)	(NA)	(NA)	(NA)
1949 <sup>3</sup> .....	(NA)	(NA)	(NA)	8,065	30,984	5,343	10,869	18,636	41,628	(NA)	(NA)	(NA)	(NA)	(NA)
1947 <sup>5</sup> .....	12	13	9	7,423	25,666	4,822	9,916	15,230	26,685	( <sup>4</sup> )	( <sup>4</sup> )	(NA)	(NA)	(NA)
INDUSTRY 3729. —AIRCRAFT EQUIPMENT, N.E.C.														
1963.....	935	1,000	470	175,167	1,319,476	111,430	232,819	745,501	1,966,904	1,167,527	3,168,607	61,931	75	59
1962 <sup>3</sup> .....	(NA)	(NA)	(NA)	200,672	1,461,984	112,479	233,954	716,683	2,019,961	1,722,703	3,699,870	89,316	(NA)	(NA)
1961 <sup>3</sup> .....	(NA)	(NA)	(NA)	210,304	1,475,782	123,350	260,290	754,319	2,062,888	1,962,980	3,973,754	96,294	(NA)	(NA)
1960 <sup>3</sup> .....	(NA)	(NA)	(NA)	199,800	1,315,011	131,098	277,467	763,714	1,799,694	1,427,782	3,181,527	67,553	(NA)	(NA)
1959 <sup>3</sup> .....	(NA)	(NA)	(NA)	200,336	1,284,912	135,008	287,423	761,795	1,746,413	1,326,708	3,030,598	(S)	(NA)	(NA)
1958 <sup>6</sup> .....	1,148	1,201	508	213,500	1,294,872	144,102	296,671	781,914	1,797,203	1,155,011	3,031,089	50,991	84	63

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: **All employees:** For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). **Production workers:** For 1947 and prior years figures represent an average of 12 monthly figures. **Value added:** Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. **Cost of materials:** Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. **Value of shipments:** Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Footnotes continued on next page.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Footnotes for Table 1-37B—Continued

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>For the period 1954-1963, the adjusted value added figure for the Aircraft Industry has not been adjusted for the change in inventory between the beginning and end of the year, since the figures reported by establishments in this industry are value of work done rather than value of shipments. It does include the value added by resales. For prior years this figure is unadjusted value added.

<sup>2</sup>For industry 3721, represents value of work done rather than value of shipments.

<sup>3</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>4</sup>Total cost of materials and total value of shipments are not shown since these figures are not comparable to those of later years.

<sup>5</sup>No comparable figures are available for previous years.

<sup>6</sup>A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification. Accordingly, the data for 1958-1963 are not comparable with those for earlier years.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963										1958		
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments <sup>2</sup>	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
	INDUSTRY 3721.—AIRCRAFT												
Total.....	100	65	302,201	2,369,416	166,744	342,120	1,097,103	3,542,695	2,773,836	6,316,531	114,658	377,383	3,399,163
Northeast.....	18	13	59,582	480,599	35,852	73,673	248,878	709,055	548,119	1,257,174	32,414	42,713	380,979
North Central.....	12	9	50,504	380,975	31,290	65,883	195,284	519,905	597,395	1,117,300	25,830	70,125	548,785
South.....	35	25	59,578	439,281	34,858	71,447	218,391	572,522	496,361	1,068,883	14,157	90,986	807,008
Maryland.....	3	2	207	1,113	157	320	667	792	1,508	2,300	20	(3)	(3)
Texas.....	13	11	28,808	227,816	15,762	32,290	100,343	304,472	259,910	564,382	8,472	(3)	(3)
West.....	35	18	132,537	1,068,561	64,744	131,117	434,550	1,741,213	1,131,961	2,873,174	42,257	173,559	1,662,391
	INDUSTRY 3722.—AIRCRAFT ENGINES AND PARTS												
Total.....	232	172	190,834	1,486,081	105,890	222,000	705,727	2,244,317	1,876,762	4,100,520	111,529	159,094	1,615,671
New England.....	51	40	50,013	356,287	32,296	69,968	206,504	559,915	559,691	1,129,654	21,891	42,196	379,755
Middle Atlantic....	40	26	20,552	140,959	12,520	25,617	77,050	245,078	128,414	385,329	8,643	26,517	285,146
Pennsylvania.....	13	10	4,840	29,672	3,617	7,499	20,799	65,773	33,546	98,996	898	6,019	62,523
East North Central.	67	56	42,004	321,853	24,714	50,131	161,892	504,985	452,744	955,831	19,667	53,453	607,955
Ohio.....	22	19	21,734	168,215	11,597	23,136	75,330	261,780	255,839	513,893	6,452	26,208	294,870
Illinois.....	6	5	1,902	14,187	1,227	2,662	8,276	26,117	12,220	38,400	2,484	(3)	(3)
West North Central.	6	6	2,010	14,711	1,310	2,512	7,879	23,595	13,531	37,435	549	5,790	53,472
South.....	17	12	15,009	115,735	8,255	17,214	58,379	151,752	144,563	293,119	5,969	3,866	27,107
West.....	51	32	61,246	536,536	26,795	56,558	194,023	758,992	577,819	1,299,152	54,810	27,272	262,236
California.....	43	26	45,800	419,818	19,745	41,685	141,211	567,097	400,896	933,227	47,527	25,833	250,001

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963										1958		
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
	INDUSTRY 3723.—AIRCRAFT PROPELLERS AND PARTS												
Total.....	14	8	11,183	78,712	6,231	13,515	37,666	113,433	69,829	190,761	6,045	15,505	112,301
	INDUSTRY 3729.—AIRCRAFT EQUIPMENT, N.E.C.												
Total.....	1,000	470	175,167	1,319,476	111,430	232,819	745,501	1,966,904	1,167,527	3,168,607	61,931	213,500	1,797,203
Middle Atlantic....	149	85	24,890	182,774	12,613	26,942	77,350	264,354	149,367	410,306	8,804	36,025	302,620
New York.....	90	50	9,362	61,052	6,585	13,768	40,221	93,848	55,618	143,625	2,530	23,625	179,701
New Jersey.....	32	18	4,209	29,797	2,384	5,025	14,822	45,792	27,567	73,955	1,454	(3)	(3)
Pennsylvania.....	27	17	11,319	91,925	3,644	8,149	22,307	124,714	66,182	192,726	4,820	(3)	(3)
East North Central.	152	76	30,189	224,676	18,864	39,086	123,414	297,087	237,527	535,110	9,583	42,692	337,229
Illinois.....	18	12	4,380	29,737	2,831	5,592	16,756	37,414	41,559	78,681	911	(3)	(3)
Michigan.....	61	26	5,371	42,117	3,317	6,794	23,306	58,701	31,812	93,688	2,133	5,905	43,352
South Atlantic.....	48	31	15,777	120,342	8,049	16,118	50,263	156,393	86,183	251,847	4,417	10,159	43,214
Florida.....	26	14	1,128	7,087	848	1,786	5,233	10,711	5,507	19,636	546	1,450	9,707
West South Central.	47	24	5,055	36,217	3,387	6,866	19,489	53,664	30,259	84,060	2,626	9,034	70,893
Oklahoma.....	10	5	1,694	13,805	1,266	2,478	7,835	14,984	4,767	20,542	1,701	(3)	(3)
Pacific.....	445	181	44,442	344,234	31,996	70,057	233,355	527,793	291,397	823,031	26,265	88,514	797,748
California.....	421	169	41,559	323,680	30,103	66,034	221,234	501,115	268,983	777,740	23,638	87,130	786,094
All other divisions.	159	75	54,814	411,233	36,521	73,750	241,630	667,613	372,794	1,064,253	10,236	27,076	245,499
Rhode Island.....	3	3	222	1,460	150	337	867	3,193	1,139	4,474	47	(3)	(3)
Connecticut.....	39	18	4,991	36,833	2,945	6,293	18,067	45,321	27,183	71,470	2,588	1,708	16,413
Missouri.....	17	7	1,154	7,104	833	1,782	4,454	9,321	6,481	15,889	484	(3)	(3)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 3721, Aircraft: New England—Massachusetts, 1 (20-99); Connecticut, 4 (10,000 and over); Middle Atlantic—New York, 7 (37,790); Pennsylvania, 6 (10,000 and over); East North Central—Ohio, 3 (12,071); Michigan, 2 (20-99); Wisconsin, 1 (20-99); West North Central—Missouri, 1 (10,000 and over); Kansas, 5 (9,348); South Atlantic—Delaware, 1 (100-249); North Carolina, 1 (500-999); Georgia, 2 (10,000 and over); Florida, 7 (1,000-2,499); East South Central—Alabama, 3 (5,000-9,999); West South Central—Oklahoma, 5 (2,500-4,999); Mountain—Wyoming, 2 (100-249); Colorado, 1 (1-19); Pacific—Washington, 7 (61,044); Oregon, 1 (1-19); California, 23 (71,250); Alaska, 1 (1-19).

SIC 3722, Aircraft Engines and Parts: New England—Maine, 3 (1,000-2,499); Vermont, 2 (500-999); Massachusetts, 8 (6,745); Rhode Island, 2 (250-499); Connecticut, 36 (41,119); Middle Atlantic—New York, 17 (5,000-9,999); New Jersey, 10 (10,000 and over); East North Central—Indiana, 12 (13,882); Michigan, 7 (2,500-4,999); Wisconsin, 2 (200-249); West North Central—Minnesota, 2 (250-499); Iowa, 1 (250-499); Missouri, 3 (1,000-2,499); South Atlantic—Maryland, 1 (500-999); Virginia, 1 (500-999); North Carolina, 2 (250-499); Georgia, 1 (20-99); Florida, 5 (5,000-9,000); East South Central—Alabama, 1 (1,000-2,499); West South Central—Louisiana, 1 (2,500-4,999); Oklahoma, 1 (1-19); Texas, 4 (1,000-2,499); Mountain—Arizona, 3 (2,500-4,999); Utah, 3 (12,072); Pacific—Washington, 2 (20-99).

SIC 3723, Aircraft Propellers and Parts: New England—Connecticut, 2 (5,000-9,999); Middle Atlantic—New York, 1 (20-99); New Jersey, 2 (1,000-2,499); Pennsylvania, 1 (100-249); East North Central—Ohio, 2 (100-249); Michigan, 1 (250-499); South Atlantic—Florida, 1 (1-19); Mountain—Colorado, 1 (1-19); Pacific—California, 3 (20-99).

SIC 3729, Aircraft Equipment, N.E.C.: New England—Maine, 2 (20-99); Vermont, 2 (1,000-2,499); Massachusetts, 17 (2,500-4,999); East North Central—Ohio, 56 (10,000 and over); Indiana, 16 (6,637); Wisconsin, 1 (20-99); West North Central—Minnesota, 8 (2,500-4,999); Nebraska, 1 (1-19); Kansas, 35 (19,290); South Atlantic—Delaware, 1 (250-499); Maryland, 8 (10,000 and over); Virginia, 3 (500-999); West Virginia, 1 (1-19); North Carolina, 2 (250-499); Georgia, 7 (233); East South Central—Kentucky, 1 (20-99); Tennessee, 3 (2,500-4,999); Alabama, 2 (100-249); Mississippi, 2 (500-999); West South Central—Arkansas, 1 (20-99); Texas, 36 (2,500-4,999); Mountain—Idaho, 1 (100-249); Colorado, 6 (10,000 and over); New Mexico, 1 (1-19); Arizona, 18 (1,000-2,499); Nevada, 1 (1-19); Pacific—Washington, 22 (1,000-2,499); Oregon, 2 (500-999).

<sup>2</sup>For industry 3721, represents value of work done rather than the value of shipments.

<sup>3</sup>This State or region was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.



TABLE 3. Detailed Statistics: 1963

Item	Aircraft (SIC 3721)	Aircraft engines and parts (SIC 3722)	Aircraft propellers and parts (SIC 3723)	Aircraft equipment, n.e.c. (SIC 3729)
Primary product specialization ratio <sup>1</sup> .....	.69	.87	.48	.75
Coverage ratio <sup>2</sup> .....	.96	.93	.81	.59
Establishments, total.....number..	100	232	14	1,000
With 1 to 19 employees.....do....	35	60	6	530
With 20 to 99 employees.....do....	19	71	2	271
With 100 employees or more.....do....	46	101	6	199
Proprietors and working partners.....do....	13	35	2	369
All employees (average for the year).....do....	302,201	190,834	11,183	175,167
Payroll (all employees), total for year.....\$1,000..	2,369,416	1,486,081	78,712	1,319,476
Production workers:				
Average for the year.....number..	166,744	105,890	6,231	111,430
March.....do....	167,370	100,507	6,654	112,327
May.....do....	165,736	100,273	6,625	110,828
August.....do....	163,552	120,046	6,040	110,186
November.....do....	170,313	102,732	5,580	112,361
Man-hours.....1,000..	342,120	222,000	13,515	232,819
January-March.....do....	89,166	56,336	3,612	59,101
April-June.....do....	85,732	56,023	3,648	58,293
July-September.....do....	81,660	52,817	3,162	56,918
October-December.....do....	85,574	56,824	3,094	58,507
Wages.....\$1,000..	1,097,103	705,727	37,666	745,501
Cost of materials, etc., total.....do....	2,773,836	1,876,762	69,829	1,167,527
Materials, parts, containers, and supplies consumed.....do....	2,458,694	1,386,229	64,501	996,750
Cost of resales.....do....	176,045	96,088	78	35,098
Fuels consumed.....do....	6,950	7,244	368	6,989
Electric energy:				
Purchased:				
Quantity.....million kw.-hrs..	2,361	2,174	107	1,533
Cost.....\$1,000..	21,928	23,391	1,301	18,198
Generated less sold.....million kw.-hrs..	(D)	(D)	-	20
Contract work.....\$1,000..	110,219	363,810	3,581	110,492
Value of shipments (including resales), total <sup>3</sup> .....do....	6,316,531	4,100,520	190,761	3,168,607
Value of resales.....do....	229,852	140,420	91	44,377
Value added by manufacture, adjusted <sup>4</sup> .....do....	3,542,695	2,244,317	113,433	1,966,904
Manufacturers' inventories:				
Beginning of year, total.....do....	2,026,900	614,502	41,580	570,432
Finished products.....do....	91,157	110,580	14,866	43,429
Work-in-process.....do....	1,589,334	332,643	19,801	428,868
Materials, supplies, fuel, etc.....do....	346,409	171,279	6,913	98,135
End of year, total.....do....	2,437,713	607,359	33,042	525,313
Finished products.....do....	58,627	150,408	13,408	33,379
Work-in-process.....do....	1,944,544	313,374	13,760	404,742
Materials, supplies, fuel, etc.....do....	434,542	143,577	5,874	87,192
Expenditures for plant and equipment, total.....do....	124,043	116,651	6,242	71,960
New, total.....do....	114,658	111,529	6,045	61,931
New structures and additions to plant.....do....	40,662	45,506	401	15,803
New machinery and equipment.....do....	73,996	66,023	5,644	46,128
Used plant and equipment.....do....	9,385	5,122	197	10,029
Selected operating ratios:				
Payroll/Total employment.....	7,841	7,787	7,039	7,532
Production workers/Total employment.....	.55	.55	.56	.64
Man-hours/Production workers.....	2,052	2,097	2,169	2,089
Production worker wages/Man-hours.....	3.21	3.18	2.79	3.20
Cost of materials and payrolls/Total value of shipments....	.79	.82	.78	.78
Cost of materials/Total value of shipments.....	.44	.46	.37	.37
Adjusted value added/Total employment.....	11,723	11,761	10,143	11,229
Salaries and wages/Adjusted value added.....	.67	.66	.69	.67

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

<sup>3</sup>For industry 3721, represents value of work done rather than value of shipments.

<sup>4</sup>See table 1, footnote 1.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3721.—AIRCRAFT											
Establishments.....number..	100	16	12	7	10	9	7	3	6	9	21
All employees:											
Total.....do....	302,201	31	168	(D)	975	(D)	1,079	1,107	4,464	16,367	278,010
Payroll.....\$1,000..	2,369,416	170	906	(D)	5,014	(D)	5,805	5,243	28,593	106,452	2,217,233
Value added, adjusted.....do....	3,542,695	192	1,444	(D)	5,550	(D)	5,688	9,821	38,168	138,349	3,343,483
Value of shipments <sup>1</sup> .....do....	6,316,531	290	2,302	(D)	11,307	(D)	10,079	17,545	59,873	261,174	5,953,961
Capital expenditures, new...do....	114,658	6	32	(D)	308	(D)	71	97	916	4,741	108,487
INDUSTRY 3722.—AIRCRAFT ENGINES AND PARTS											
Establishments.....number..	232	20	18	22	35	36	27	12	20	15	17
All employees:											
Total.....do....	190,834	43	128	332	1,139	2,386	5,792	4,577	13,011	21,896	141,530
Payroll.....\$1,000..	1,486,081	260	835	2,138	7,941	17,546	39,285	31,359	96,526	171,260	1,118,931
Value added, adjusted.....do....	2,244,317	399	1,154	3,406	11,088	25,709	63,871	43,770	166,277	263,061	1,665,582
Value of shipments.....do....	4,100,520	618	1,679	5,411	17,651	40,829	100,290	75,912	262,939	408,854	3,186,337
Capital expenditures, new...do....	111,529	53	(D)	126	642	1,392	2,073	2,265	7,005	21,927	76,046
INDUSTRY 3723.—AIRCRAFT PROPELLERS AND PARTS											
Establishments.....number..	14	2	2	2	2	-	3	1	-	1	1
All employees:											
Total.....do....	11,183	11,183	(D)	(D)	(D)	-	(D)	(D)	-	(D)	(D)
Payroll.....\$1,000..	78,712	78,712	(D)	(D)	(D)	-	(D)	(D)	-	(D)	(D)
Value added, adjusted.....do....	113,433	113,433	(D)	(D)	(D)	-	(D)	(D)	-	(D)	(D)
Value of shipments.....do....	190,761	190,761	(D)	(D)	(D)	-	(D)	(D)	-	(D)	(D)
Capital expenditures, new...do....	6,045	6,045	(D)	(D)	(D)	-	(D)	(D)	-	(D)	(D)
INDUSTRY 3729.—AIRCRAFT EQUIPMENT, N.E.C.											
Establishments.....number..	1,000	245	117	168	168	103	88	47	29	25	10
All employees:											
Total.....do....	175,167	433	827	2,377	5,312	6,979	14,010	16,545	19,616	39,179	69,889
Payroll.....\$1,000..	1,319,476	4,074	4,897	15,353	34,306	45,045	95,511	112,264	142,887	302,207	562,932
Value added, adjusted.....do....	1,966,904	5,860	7,949	25,161	51,877	65,743	139,025	165,299	213,578	429,373	863,039
Value of shipments.....do....	3,168,607	9,780	12,522	41,935	86,687	116,490	242,883	273,980	354,402	688,636	1,341,292
Capital expenditures, new...do....	61,931	493	471	1,267	7,252	(D)	5,624	5,462	9,317	16,754	15,291

-Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. n.e.c. Not elsewhere classified.

<sup>1</sup>For industry 3721, represents value of work done rather than value of shipments.



**TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments <sup>1</sup>					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B+C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3721	Aircraft.....1963..	6,316,531	4,164,135	1,898,380	254,016	69	4,330,502	4,164,135	166,367	96
	.....1958..	6,438,067	4,988,297	1,148,011	301,759	81	5,362,680	4,988,297	374,383	99
3722	Aircraft engines and parts.....1963..	4,100,520	3,366,568	495,477	238,475	87	3,609,691	3,366,568	243,123	93
	.....1958..	3,512,073	3,099,271	206,503	206,299	94	3,325,935	3,099,271	226,664	93
3723	Aircraft propellers and parts.....1963..	190,761	88,348	94,880	7,533	48	108,991	88,348	20,643	81
	.....1958..	235,270	158,030	53,771	23,469	75	166,952	158,030	8,922	95
3729	Aircraft equipment, n.e.c.....1963..	3,168,607	2,254,298	760,975	153,334	75	3,791,952	2,254,298	1,537,654	59
	.....1958..	3,031,089	2,365,826	461,067	204,196	84	3,750,460	2,365,826	1,384,634	63

Note: See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>For industry 3721, represents value of work done rather than value of shipments.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Aircraft (SIC 3721)	Other industries
<b>AIRCRAFT INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	<sup>1</sup> 6,316,531	(X)
	Primary products.....	<sup>2</sup> 4,330,502	<sup>2</sup> 4,164,135	<sup>2</sup> 166,367
37211	Complete aircraft, military type.....	2,470,261	2,467,419	2,842
37212	Complete aircraft, personal and utility type.....	157,797	156,767	1,030
37213	Complete aircraft, commercial transport (airline passenger and cargo service).....	561,124	559,776	1,348
37214	Modifications, conversions, and overhaul of previously accepted aircraft.....	465,455	355,472	109,983
37216	Other aeronautical services for aircraft.....	668,386	617,371	51,015
37210	Aircraft, n.e.c.....	7,479	7,330	149
	Secondary products.....	(X)	1,898,380	(X)
19251	Guided missiles, complete.....	(X)	372,326	(X)
37291	Other aircraft parts and auxiliary equipment.....	(X)	713,850	(X)
37292	Guided missile components and subassemblies, n.e.c.....	(X)	115,775	(X)
37294	Research and development on missile parts and components, n.e.c.....	(X)	45,202	(X)
	All other secondary products.....	(X)	651,227	(X)
19253	Research and development on guided missiles (complete).....	(X)	(over 2)	(X)
19255	All other services on complete missiles and space vehicles.....	(X)	(200-500)	(X)
19990	Ordnance and accessories, n.e.c.....	(X)	(2-5)	(X)
27313	Technical, scientific, and professional books.....	(X)	(over 2)	(X)
36624	Electronic navigational aids (except missile-borne and space vehicle basin equipment)....	(X)	(over 2)	(X)
36625	Electronic search and detection apparatus, including radar, infrared and sonar.....	(X)	(50-100)	(X)
36626	Electronic military, industrial, and commercial equipment, n.e.c.....	(X)	(over 2)	(X)
36628	Missile-borne and space vehicle-borne navigation and guidance systems and equipment.....	(X)	(over 2)	(X)
37225	Complete missile or space vehicle engines and/or propulsion units.....	(X)	(over 2)	(X)
37226	Research and development on complete missile or space vehicle engines and/or propulsion units.....	(X)	(over 2)	(X)
37293	Research and development on aircraft parts.....	(X)	(10-20)	(X)
37312	Self-propelled U.S. military ships, new construction.....	(X)	(over 2)	(X)
38111	Aircraft flight, nautical, and navigational instruments and automatic pilots.....	(X)	(5-10)	(X)
	Miscellaneous receipts.....	(X)	254,016	(X)
	Contract work.....	(X)	2,841	(X)
	Resales.....	(X)	229,852	(X)
	Other miscellaneous receipts.....	(X)	21,323	(X)
Listing of other industries with over \$2 million shipments of the primary product class:				
37214	1925 Complete guided missiles.....	(X)	(X)	(over 2)
	3662 Radio, TV communications equipment.....	(X)	(X)	(over 2)
	3729 Aircraft equipment, n.e.c.....	(X)	(X)	(over 2)
37216	1925 Complete guided missiles.....	(X)	(X)	7,880
	3662 Radio, TV communications equipment.....	(X)	(X)	(over 2)
	3722 Aircraft engines and parts.....	(X)	(X)	(over 2)
	3729 Aircraft equipment, n.e.c.....	(X)	(X)	(over 2)
<b>AIRCRAFT ENGINES AND PARTS INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	4,100,520	(X)
	Primary products.....	3,609,691	3,366,568	243,123
37221	Aircraft engines for U.S. military customers.....	644,417	639,515	4,902
37222	Aircraft engines for other than U. S. military customers.....	150,033	513,595	21,777
37223	Research and development on aircraft engines.....	385,339		
37224	Aircraft engine parts and accessories.....	932,093		
37225	Complete missile or space vehicle engines and/or propulsion units.....	582,631	794,257	137,836
37226	Research and development on complete missile or space vehicle engines and/or propulsion units.....	696,780	1,263,098	25,164
37220	Aircraft engines and parts, n.s.k.....	8,851		
37227	All other services on complete missile or space vehicle engines and/or propulsion units....	61,721		
37228	Missile and space vehicle engine and/or propulsion unit parts or accessories.....	147,826	61,049	672
			95,054	52,772
		All industries	Aircraft engines and parts (SIC 3722)	Other industries

See footnotes at end of table.



**TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:**  
**1963—Continued**

Prod. class code	Class of products and miscellaneous receipts	All industries	Aircraft engines and parts (SIC 3722)	Other industries
AIRCRAFT ENGINES AND PARTS INDUSTRY--Continued				
	Secondary products.....	(X)	495,477	(X)
19990	Ordnance and accessories, n.e.c.....	(X)	5,390	(X)
35197	Parts and accessories for internal combustion engines.....	(X)	10,885	(X)
35441	Special dies and tools, die sets, jigs and fixtures.....	(X)	3,566	(X)
37291	Other aircraft parts and auxiliary equipment.....	(X)	34,818	(X)
37292	Guided missile components and subassemblies, n.e.c.....	(X)	128,269	(X)
37294	Research and development on missile parts and components, n.e.c.....	(X)	23,924	(X)
	All other secondary products.....	(X)	288,625	(X)
19251	Guided missiles, complete.....	(X)	(over 2)	(X)
19310	Tanks and tank components.....	(X)	(20-50)	(X)
19511	Small arms, 30 mm and under (1.18 inches and under).....	(X)	(10-20)	(X)
19512				
34613	Job stampings, automotive.....	(X)	(2-5)	(X)
34944	Other metal valves and fittings, except plumbers' brass goods and fittings.....	(X)	(20-50)	(X)
35111	Steam, gas, and hydraulic turbine generator set units and parts.....	(X)	(over 2)	(X)
35112	Steam, gas, and hydraulic turbines and parts; steam engines and parts.....	(X)	(20-50)	(X)
35196	Other internal combustion engines (including converted engines and tank engines).....	(X)	(10-20)	(X)
35661	Plain bearings.....	(X)	(5-10)	(X)
35663	Other mechanical power transmission equipment.....	(X)	(over 2)	(X)
36621	Commercial, industrial, and military electronic communication equipment.....	(X)	(over 2)	(X)
36625	Electronic search and detection apparatus, including radar, infrared and sonar.....	(X)	(10-20)	(X)
36628	Missile-borne and space vehicle-borne navigation and guidance systems and equipment.....	(X)	(2-5)	(X)
37175	Parts and accessories for passenger cars, trucks and busses, shipped to motor vehicle manufacturers.....	(X)	(5-10)	(X)
37216	Other aeronautical services for aircraft.....	(X)	(over 2)	(X)
37230	Aircraft propellers and parts.....	(X)	(over 2)	(X)
37293	Research and development on aircraft parts.....	(X)	(2-5)	(X)
37413	Parts for locomotives, for sale separately, and rebuilt locomotives.....	(X)	(over 2)	(X)
37423	Street cars and parts and accessories for railroad and street cars; rebuilt passenger and freight train cars.....	(X)	(over 2)	(X)
	Miscellaneous receipts.....	(X)	238,475	(X)
	Receipts for work done for others on their own materials (contract work).....	(X)	27,004	(X)
	Sales of scrap and refuse.....	(X)	3,719	(X)
	Receipts for installation.....	(X)	18,131	(X)
	Receipts for research and development work not attributable to aircraft, aircraft engines, aircraft parts, missile systems, space vehicle systems, complete missile or space vehicle engines and/or propulsion units, and/or, missile and space vehicle components.....	(X)	25,456	(X)
	Receipts for repair work.....	(X)	5,779	(X)
	Resales.....	(X)	140,420	(X)
	Other miscellaneous receipts.....	(X)	17,966	(X)
	Listing of other industries with over \$2 million shipments of the primary product classes:			
37222	1929 Ammunition, n.e.c.....	(X)	(X)	(over 2)
37223		(X)	(X)	(over 2)
37224	1925 Complete guided missiles.....	(X)	(X)	(over 2)
	3356 Rolling and drawing, n.e.c.....	(X)	(X)	(10-20)
	3461 Metal stampings.....	(X)	(X)	5-10
	3494 Valves and pipe fittings.....	(X)	(X)	12,729
	3511 Steam engines and turbines.....	(X)	(X)	(over 2)
	3519 Internal combustion engines.....	(X)	(X)	(over 2)
	3621 Motors and generators.....	(X)	(X)	(over 2)
	3662 Radio, TV communications equipment.....	(X)	(X)	(over 2)
	3679 Electronic components, n.e.c.....	(X)	(X)	(over 2)
	3717 Motor vehicles and parts.....	(X)	(X)	7,742
	3723 Aircraft propellers and parts.....	(X)	(X)	(20-50)
	3729 Aircraft equipment, n.e.c.....	(X)	(X)	17,902
	3821 Mechanical measuring devices.....	(X)	(X)	(over 2)
37225,	2892 Explosives.....	(X)	(X)	(over 2)
37226				
and	3721 Aircraft.....	(X)	(X)	(over 2)
37220				
37228	3717 Motor vehicles and parts.....	(X)	(X)	4,860
	3729 Aircraft equipment, n.e.c.....	(X)	(X)	(over 2)

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Aircraft propellers and parts (SIC 3723)	Other industries
AIRCRAFT PROPELLERS AND PARTS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	190,761	(X)
37230	Aircraft propellers and parts.....	108,991	88,348	20,643
	Secondary products.....	(X)	94,880	(X)
37224	Aircraft engine parts and accessories.....	(X)	(20-50)	(X)
35857	Other refrigeration and air-conditioning equipment, including soda fountain and beer dispensing equipment.....	(X)	(over 2)	(X)
36231	Arc welding machines, components and accessories, except electrodes.....	(X)	(over 2)	(X)
37291	Other aircraft parts and auxiliary equipment.....	(X)	(over 2)	(X)
37293	Research and development on aircraft parts.....	(X)	(over 2)	(X)
	Miscellaneous receipts.....	(X)	7,533	(X)
	Resales.....	(X)	91	(X)
	Other miscellaneous receipts.....	(X)	7,442	(X)
	Listing of other industries with over \$2 million shipments of aircraft propellers and parts:			
37230	3729 Aircraft equipment, n.e.c.....	(X)	(X)	(5-10)
	3722 Aircraft engines and parts.....	(X)	(X)	(over 2)
		All industries	Aircraft equip- ment, n.e.c. (SIC 3729)	Other industries
AIRCRAFT EQUIPMENT, N.E.C., INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	3,168,607	(X)
	Primary products.....	3,791,952	2,254,298	1,537,654
37291	Other aircraft parts and auxiliary equipment.....	2,215,290	1,254,471	960,819
37292	Guided missile components and subassemblies, n.e.c.....	1,009,265	583,223	426,042
37293	Research and development on aircraft parts.....	74,541	15,464	59,077
37294	Research and development on missile parts and components, n.e.c.....	420,362	329,001	91,361
37290	Aircraft equipment, n.e.c., n.s.k.....	72,494	72,139	355
	Secondary products.....	(X)	760,975	(X)
19253	Research and development on guided missiles (complete).....	(X)	107,949	(X)
19255	All other services on complete missiles and space vehicles.....	(X)	5,864	(X)
19293	Ammunition, n.e.c.....	(X)	2,315	(X)
19990	Ordnance and accessories, n.e.c.....	(X)	7,227	(X)
34944	Other metal valves and fittings except plumbers brass goods and fittings.....	(X)	2,990	(X)
34990	Fabricated metal products, n.e.c.....	(X)	6,606	(X)
35441	Special dies and tools, die sets, jigs, and fixtures.....	(X)	2,688	(X)
35690	General industrial machinery, n.e.c.....	(X)	2,388	(X)
35712	Computing and accounting machines, including cash registers.....	(X)	3,985	(X)
35990	Carburetors, pistons, and other machine shop products.....	(X)	13,488	(X)
36621	Commercial, industrial, and military electronic communication equipment.....	(X)	2,802	(X)
36625	Electronic search and detection apparatus, including radar, infrared, and sonar.....	(X)	16,834	(X)
36626	Electronic, military, industrial, and commercial equipment, n.e.c.....	(X)	9,649	(X)
36795	Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks).....	(X)	13,256	(X)
37175	Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers.....	(X)	5,577	(X)
37224	Aircraft engine parts and accessories.....	(X)	17,902	(X)
38111	Aircraft flight, nautical, and navigational instruments and automatic pilots.....	(X)	5,575	(X)
	All other secondary products.....	(X)	533,880	(X)
19110	Guns, howitzers, mortars, and related equipment over 30 mm (or over 1.18 inches).....	(X)	(100-200)	(X)
19310	Tanks and tank components.....	(X)	(5-10)	(X)
19511	Machine guns, 30 mm and under (or 1.18 inches and under).....	(X)	(over 2)	(X)
30791	Unsupported plastics film, sheets, sheeting, rods, tubes, and other stock shapes from purchased resin materials.....	(X)	(5-10)	(X)
30795	Industrial plastics products.....	(X)	(over 2)	(X)

See footnotes at end of table.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Aircraft equip- ment, n.e.c. (SIC 3729)	Other industries
AIRCRAFT EQUIPMENT, N.E.C., INDUSTRY--Continued				
Secondary products--Continued				
All other secondary products--Continued				
30796	Construction plastics products.....	(X)	(over 2)	(X)
34492	Prefabricated and portable metal buildings and parts.....	(X)	(over 2)	(X)
34913	All other metal barrels, including beer barrels and fluid milk shipping containers.....	(X)	(over 2)	(X)
34940	Valves and pipe fittings, n.s.k.....	(X)	(over 2)	(X)
35112	Steam, gas, and hydraulic turbine and parts, steam engines and parts.....	(X)	(5-10)	(X)
35317	Integral tractor-shovel loaders (wheel and track laying types), including parts.....	(X)	(over 2)	(X)
35612	Hydraulic fluid power pumps and motors.....	(X)	(over 2)	(X)
35616	Parts and attachments for pumps, air and gas compressors, and pumping equipment.....	(X)	(5-10)	(X)
35662	Speed changers, industrial high speed drives, and gears.....	(X)	(2-5)	(X)
35851	Heat transfer equipment.....	(X)	(over 2)	(X)
35857	Other refrigeration and air-conditioning equipment, including soda fountain and beer dispensing equipment.....	(X)	(2-5)	(X)
36311	Electric household ranges and ovens and surface cooking unit equipment and parts (except small appliances).....	(X)	(2-5)	(X)
36331	Household mechanical washing machines, dryers, and washer-dryer combinations.....	(X)	(over 2)	(X)
36621	Commercial, industrial, and military electronic communication equipment.....	(X)	(2-5)	(X)
36623	Intercommunication equipment (except telephone and telegraph) and electric alarm and signal systems and devices.....	(X)	(2-5)	(X)
36624	Electronical navigational aids (except missile-borne and space vehicle basin equipment).....	(X)	(2-5)	(X)
36628	Missile-borne and space vehicle-borne navigation and guidance systems and equipment.....	(X)	(10-20)	(X)
37176	Parts and accessories for passenger cars, trucks, and busses, shipped to other than motor vehicle manufacturers.....	(X)	(2-5)	(X)
37214	Modifications, conversions and overhaul of previously accepted aircraft.....	(X)	(over 2)	(X)
37216	Other aeronautical services for aircraft.....	(X)	(over 2)	(X)
37228	Missile and space vehicle engine and/or propulsion unit parts or accessories.....	(X)	(over 2)	(X)
37230	Aircraft propellers and parts.....	(X)	(5-10)	(X)
38112	Laboratory and scientific instruments.....	(X)	(20-50)	(X)
38311	Optical instruments and lenses, except sighting and fire-control equipment.....	(X)	(2-5)	(X)
39991	Chemical fire extinguishing equipment and parts.....	(X)	(over 2)	(X)
	Miscellaneous receipts.....	(X)	153,334	(X)
	Contract work.....	(X)	57,564	(X)
	Resales.....	(X)	44,377	(X)
	Sales of scrap and refuse.....	(X)	6,150	(X)
	Receipts for repair work.....	(X)	13,394	(X)
	Receipts for installation.....	(X)	4,472	(X)
	Receipts for research and development work not attributable to aircraft, aircraft engines, aircraft parts, missile systems, space vehicle systems, complete missile or space vehicle engines and/or propulsion units, and/or missile and space vehicle components.....	(X)	22,597	(X)
	Other miscellaneous receipts.....	(X)	4,780	(X)
37291	Listing of other industries with over \$2 million shipments of the primary product classes:			
1925	Complete guided missiles.....	(X)	(X)	(over 2)
3544	Special dies and tools.....	(X)	(X)	2,716
3561	Pumps and compressors.....	(X)	(X)	3,732
3566	Power transmission equipment.....	(X)	(X)	2,847
3599	Miscellaneous machinery.....	(X)	(X)	3,414
3662	Radio, TV communication equipment.....	(X)	(X)	35,012
3717	Motor vehicles and parts.....	(X)	(X)	4,638
3721	Aircraft.....	(X)	(X)	713,850
3722	Aircraft engines and parts.....	(X)	(X)	34,818
1929	Ammunition, n.e.c.....	(X)	(X)	(over 2)
1941	Sighting and fire control equipment.....	(X)	(X)	(over 2)
3069	Rubber products, n.e.c.....	(X)	(X)	(5-10)
3293	Gaskets and insulations.....	(X)	(X)	(over 2)
3356	Rolling and drawing, n.e.c.....	(X)	(X)	(over 2)
3511	Steam engines and turbines.....	(X)	(X)	(over 2)
3548	Metalworking machinery, n.e.c.....	(X)	(X)	(5-10)
3621	Motors and generators.....	(X)	(X)	(5-10)
3723	Aircraft propellers and parts.....	(X)	(X)	(over 2)
3742	Railroad and street cars.....	(X)	(X)	(5-10)
3949	Sporting and athletic goods.....	(X)	(X)	(over 2)
37292	1925 Complete guided missiles.....	(X)	(X)	23,099
1929	Ammunition, n.e.c.....	(X)	(X)	57,318
3662	Radio, TV communications equipment.....	(X)	(X)	37,326
3721	Aircraft.....	(X)	(X)	115,775
3722	Aircraft engines and parts.....	(X)	(X)	128,269
1931	Tanks and tank components.....	(X)	(X)	(over 2)
1941	Sighting and fire control equipment.....	(X)	(X)	(over 2)
2892	Explosives.....	(X)	(X)	(2-5)

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Aircraft equip- ment, n.e.c. (SIC 3729)	Other industries
	AIRCRAFT EQUIPMENT, N.E.C., INDUSTRY—Continued			
	Listing of other industries with over \$2 million shipments of the primary product class:—Continued			
	3069 Rubber products, n.e.c.....	(X)	(X)	(over 2)
	3356 Rolling and drawing, n.e.c.....	(X)	(X)	(over 2)
	3443 Boiler shop products.....	(X)	(X)	(2-5)
	3533 Oil field machinery.....	(X)	(X)	(over 2)
	3536 Hoists, cranes, and monorails.....	(X)	(X)	(over 2)
	3559 Special industry machines, n.e.c.....	(X)	(X)	(2-5)
	3571 Computing and related machines.....	(X)	(X)	(2-5)
	3634 Electric housewares and fans.....	(X)	(X)	(2-5)
	3871 Watches and clocks.....	(X)	(X)	(over 2)
37293	3621 Motors and generators.....	(X)	(X)	(2-5)
	3721 Aircraft.....	(X)	(X)	(10-20)
	3722 Aircraft engines and parts.....	(X)	(X)	(2-5)
	3723 Aircraft propellers and parts.....	(X)	(X)	(over 2)
37294	3662 Radio, TV communications equipment.....	(X)	(X)	5,814
	3721 Aircraft.....	(X)	(X)	45,202
	1925 Complete guided missiles.....	(X)	(X)	(2-5)
	2892 Explosives.....	(X)	(X)	(2-5)
	3647 Noncurrent carrying devices.....	(X)	(X)	(over 2)
	3722 Aircraft engines and parts.....	(X)	(X)	23,924

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Represents the value of work done for primary products of the industry and the value of shipments for secondary products.

<sup>2</sup>Represents value of work done rather than value of shipments.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958**

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
3721- --	AIRCRAFT.....	(X)	( <sup>1</sup> )	(X)	( <sup>1</sup> )
	Total value of work done <sup>1 2</sup> .....	(X)	4,330,502	(X)	5,362,680
37211 10	Value of work done on aircraft, military type, for United States military customers, excluding modifications, conversions, and other aeronautical services.....	(X)	2,470,261	(X)	3,501,650
37212 13	Value of work done on aircraft, personal type, for other than United States military customers, excluding modifications, conversions, and other aeronautical services.....	(X)	157,797	}	988,237
37213 13	Value of work done on aircraft, complete commercial transport type for other than United States military customers, excluding modifications, conversions, and other aeronautical services.....	(X)	561,124		
37214 --	Modifications, conversions, and overhaul of previously accepted aircraft.....	(X)	465,455	(X)	298,800
37214 11	For United States military customers.....	(X)	430,855	(X)	286,265
37214 51	For other than United States military customers.....	(X)	34,600	(X)	12,535
37216 --	Other aeronautical services (including research and development on aircraft).....	(X)	668,386	(X)	573,993
37216 11	For United States military customers.....	(X)	620,706	(X)	519,476
37216 51	For other than United States military customers.....	(X)	47,680	(X)	54,517
37219 --	Total value of shipments <sup>1</sup> .....	(X)	2,828,003	(X)	3,755,870
	Aircraft, complete, accepted during the year:				
37219 10	For United States military customers (including airplanes, balloons, helicopters, and autogiros).....	(X)	2,138,951	(X)	3,255,741
	For other than United States military customers (including airplanes, balloons, helicopters, and autogiros) <sup>3</sup> .....	8,203	689,052	6,882	500,129
37219 11	Personal and utility type.....	7,927	175,566		
37219 12	Commercial transport type.....	276	513,486	6,882	500,129
37210 00	Aircraft, n.s.k.....	(X)	7,479	(X)	-
3722- --	AIRCRAFT ENGINES AND ENGINE PARTS, TOTAL.....	(X)	3,609,691	(X)	3,325,935
37221 10	Aircraft engines for United States military customers.....	23,556	644,417	(NA)	41,399,851
37222 10	Aircraft engines for other than United States military customers <sup>5</sup> .....	11,906	150,033		
37224 --	Aircraft engine parts and accessories.....	(X)	932,093	(X)	61,261,401
37224 13	For United States military customers.....	(X)	668,813	}	61,261,401
37224 53	For other than United States military customers.....	(X)	262,947		
37224 00	Aircraft engine parts and accessories, n.s.k.....	(X)	333		
37225 --	Complete missile or space vehicle engines and/or propulsion units.....	(X)	582,631	(X)	( <sup>4</sup> )
37225 11	For United States military customers.....	(X)	457,946	(X)	(NA)
37225 13	For other than United States military customers.....	(X)	124,685	(X)	(NA)
37228 --	Missile and space vehicle engine and/or propulsion unit parts or accessories.....	(X)	147,826	(X)	( <sup>6</sup> )
37228 11	For United States military customers.....	(X)	75,077	(X)	(NA)
37228 13	For other than United States military customers.....	(X)	72,749	(X)	(NA)
37223 --	Research and development on aircraft engines.....	(X)	385,339	(X)	<sup>7</sup> 8664,683
	Research and development work on aircraft engines:				
37223 21	For United States military customers.....	(X)	326,750	(X)	<sup>7</sup> 658,327
37223 23	For other than United States military customers.....	(X)	( <sup>9</sup> )	(X)	<sup>8</sup> 6,356
	All other aeronautical services on aircraft engines:				
37223 31	For United States military customers.....	(X)	37,416	(X)	( <sup>7</sup> )
37223 33	For other than United States military customers.....	(X)	921,173	(X)	( <sup>8</sup> )
37226 --	Receipts for research and development on complete missile or space vehicle engines and/or propulsion units.....	(X)	696,780	(X)	( <sup>7 8</sup> )
37226 11	For United States military customers.....	(X)	475,540	(X)	( <sup>7</sup> )
37226 13	For United States nonmilitary customers.....	(X)	221,240	(X)	( <sup>8</sup> )

See footnotes at end of table.

TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
	AIRCRAFT ENGINES AND ENGINE PARTS—Continued				
37227 --	All other services on complete missile or space vehicle engines and/or propulsion units.....	(X)	61,721	(X)	(7 8)
37227 11	For United States military customers.....	(X)	54,336	(X)	(7)
37227 13	For other than United States military customers.....	(X)	7,385	(X)	(8)
37220 00	Aircraft engines and engine parts, n.s.k.....	(X)	8,851	(X)	-
3723- --	AIRCRAFT PROPELLERS AND PROPELLER PARTS, TOTAL.....	(X)	108,991	(X)	166,952
37230 10	Complete propellers <sup>10</sup> .....	15,654	58,725	22,132	94,832
37230 31	Propeller blades.....	9,728	10,889	7,013	13,291
37230 51	Propeller parts, except propeller blades.....	(X)	39,377	(X)	58,829
	Product	Total shipments including interplant transfers (\$1,000)			
		1963		1958	
3729- --	AIRCRAFT PARTS AND AUXILIARY EQUIPMENT, N.E.C., TOTAL.....			3,791,952	3,750,460
37291 --	Aircraft parts and auxiliary equipment.....			2,215,290	2,860,570
	Aircraft and related engines and power take-off gears:				
37291 13	For United States military customers.....			171,409	26,848
37291 15	For other than United States military customers.....			73,970	
	Other aircraft subassemblies and parts:				
37291 95	For United States military customers.....			1,454,704	2,833,722
37291 97	For other than United States military customers.....			460,125	
37291 00	Aircraft parts and auxiliary equipment, n.s.k. <sup>11</sup> .....			55,082	(11)
37292 --	Guided missile components and subassemblies, n.e.c.....			1,009,265	509,200
	For United States Government military customers:				
37292 11	Airframes.....			87,485	509,200
37292 13	Space capsules.....			32,337	
37292 19	All other.....			739,992	
	For United States Government nonmilitary customers:				
37292 21	Airframes.....			15,906	509,200
37292 23	Space capsules.....			68,691	
37292 29	All other.....				
	For nongovernment customers:				
37292 31	Airframes.....			10,919	509,200
37292 33	Space capsules.....			28,924	
37292 39	All other.....			25,011	
37292 00	Guided missile components and subassemblies, n.s.k. <sup>11</sup> .....			74,571	(NA)
37293 --	Receipts from research and development on aircraft parts <sup>12</sup> .....			74,571	(NA)
37293 13	For United States military customers.....				
37293 15	For other than United States military customers.....				
37293 00	Receipts from research and development on aircraft parts, n.s.k.....				

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers (\$1,000)	
		1963	1958
3729- --	AIRCRAFT PARTS AND AUXILIARY EQUIPMENT, N.E.C., TOTAL—Continued		
37294 --	Receipts from research and development on missile components, n.e.c. <sup>12</sup> .....	420,362	380,690
	Research and development on missile and space vehicle components, n.e.c.:		
	For United States Government military customers:		
37294 11	Airframes.....	173,499	380,690
37294 13	Space capsules.....	148,084	
37294 19	All other.....		
	For United States Government nonmilitary customers:		
37294 21	Airframes.....	26,656	
37294 23	Space capsules.....	44,108	
37294 29	All other.....		
	For nongovernment customers:		
37294 31	Airframes.....	13,055	
37294 33	Space capsules.....	11,945	
37294 39	All other.....		
37294 00	Receipts from research and development on missile components, n.e.c., n.s.k. <sup>11</sup> .....	3,015	
37290 00	Aircraft parts and auxiliary equipment, n.e.c., n.s.k. <sup>11</sup> .....	72,494	( <sup>11</sup> )

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Total value of shipments figure for aircraft differs from value of work done. See text for explanation of differences.

<sup>2</sup>Data for value of work done, including modifications, conversions, and overhaul of previously accepted aircraft, and other aeronautical services (including research and development on aircraft), represent receipts, billings, or value of work done.

<sup>3</sup>Statistics on shipments of complete civilian aircraft were collected monthly and published in Current Industrial Reports Series M37G. The figures reported in that survey for 1963 were as follows: quantity, 8,155 units; value, \$685,936 thousand.

<sup>4</sup>For 1958, data on complete missile or space vehicle engines and/or propulsion units were included with aircraft engines.

<sup>5</sup>Statistics on shipments of aircraft engines for other than United States military customers were collected monthly and published in Current Industrial Reports Series M37G. The total value reported in that survey for 1963 was \$144,254 thousand.

<sup>6</sup>For 1958, data on missile and space vehicle engine and/or propulsion unit parts or accessories were included with aircraft engine parts and accessories.

<sup>7</sup>For 1958, data on receipts for research and development on complete missile or space vehicle engines and/or propulsion units for United States military customers and all other services on aircraft, missile or space vehicle engines and/or propulsion units for United States military customers were included with receipts for research and development on aircraft engines for United States military customers.

<sup>8</sup>For 1958, data on receipts for research and development on complete missile or space vehicle engines and/or propulsion units for other than United States military customers and all other services on aircraft, missile or space vehicle engines and/or propulsion units for other than United States military customers were included with receipts for research and development on aircraft engines for other than United States military customers.

<sup>9</sup>For 1963, data on research and development on aircraft engines for other than United States military customers are included with all other aeronautical services on aircraft engines for other than United States military customers to avoid disclosing figures of individual companies.

<sup>10</sup>Statistics on complete propellers are also shown on Current Industrial Reports Series M37E, "Aircraft Propellers."

<sup>11</sup>Since much less detail was collected for these products in 1958, "Not specified by kind" was included within the specified products.

<sup>12</sup>Represents receipts or billings.

TABLE 6B. **Product Classes—Indexes of Production and Unit Value for Primary Products, Shipped by All Producers: 1963 and 1958**

(Indexes of production and unit value are not shown for this area pending further review of the quantity data and associated values pertaining to these products.)

TABLE 6C. **Product Classes—Value Shipped by All Manufacturing Establishments:**  
**1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3721-	Aircraft <sup>2</sup> .....	4,330,502	4,439,052	4,470,499	4,652,957	5,085,226	5,362,680	5,582,476	(NA)
37211	Complete aircraft, military type.....	2,470,261	2,314,888	2,086,548	2,394,833	2,820,292	3,501,650	4,286,260	265,328
37212	Complete aircraft, personal and utility type.....	157,797	267,556	291,982	1,269,678	1,229,087	988,237	291,705	57,020
37213	Complete aircraft, commercial transport (airline passenger and cargo service).....	561,124	786,472	969,231					
37214	Modifications, conversions, and overhaul of previously accepted aircraft.....	465,455	368,814	327,056	362,059	259,823	298,800	167,829	28,203
37216	Other aeronautical services for aircraft....	668,386	701,322	795,682	626,387	776,024	573,993	836,682	(NA)
37210	Aircraft, n.s.k.....	7,479	-	-	-	-	-	-	-
3722-	Aircraft engines and parts.....	3,609,691	3,223,167	2,966,903	2,779,263	3,176,667	3,325,935	3,190,539	436,567
37221	Aircraft engines for military customers....	644,417	3,136,190	3,123,357	3,101,341	3,126,204	3,139,851	3,151,231	187,758
37222	Aircraft engines for other than military customers.....	150,033							
37223	Research and development on aircraft engines	385,339	4933,591	4834,951	4897,310	4917,151	4664,683	4212,365	49,320
37224	Aircraft engine parts and accessories.....	932,093	5923,386	5898,595	5871,612	5995,241	51,261,401	51,466,943	63,046
37225	Complete missile or space vehicle engines and/or propulsion units.....	582,631	(3)	(3)	(3)	(3)	(3)	(3)	136,443
37226	Research and development on complete missile or space vehicle engines and/or propulsion units.....	696,780	(4)	(4)	(4)	(5)	(5)	(5)	(X)
37227	All other services on complete missile or space vehicle engines and/or propulsion units.....	61,721	(4)	(4)	(4)	(4)	(4)	(4)	(X)
37228	Missile and space vehicle engine and/or propulsion unit parts, or accessories.....	147,826	(5)	(5)	(5)	(5)	(5)	(4)	(X)
37220	Aircraft engines and engine parts, n.s.k....	8,851	-	-	-	-	-	-	-
37230	Aircraft propellers and parts.....	108,991	95,776	96,686	102,069	102,531	166,952	191,012	38,984
3729-	Aircraft equipment, n.e.c.....	3,791,952	4,269,532	4,259,318	3,863,499	4,498,314	3,750,460	2,866,553	215,446
37291	Other aircraft parts and auxiliary equipment	2,215,290	2,581,628	2,538,698	2,632,304	3,235,854	2,860,570	(NA)	(NA)
37292	Guided missile components and subassemblies, n.e.c.....	1,009,265	1,285,813	1,323,517	884,611	835,304	509,200	(NA)	(NA)
37293	Research and development on aircraft parts..	74,541	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
37294	Research and development on missile parts and components, n.e.c.....	420,362	402,091	397,103	346,584	427,156	380,690	(NA)	(NA)
37290	Aircraft equipment, n.e.c., n.s.k.....	72,494	-	-	-	-	-	-	-

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>2</sup>For industry 3721, represents value of work done rather than value of shipments.

<sup>3</sup>For 1954-1962, data for complete missile or space vehicle engines and/or propulsion units were included with aircraft engines.

<sup>4</sup>For 1954-1962, data on receipts for research and development on complete missile or space vehicle engines and/or propulsion units, and, all other services on complete missile or space vehicle engines and/or propulsion units, were included with receipts for research and development on aircraft engines.

<sup>5</sup>For 1954-1962, data on missile and space vehicle engine and/or propulsion unit parts or accessories were included with aircraft engine parts and accessories.



TABLE 6D. **Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments	Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>		1963 <sup>1</sup>		1963 <sup>1</sup>	1958
COMPLETE AIRCRAFT, PERSONAL AND UTILITY TYPE (37212)		OTHER AERONAUTICAL SERVICES FOR AIRCRAFT (37216)—Con.		AIRCRAFT PARTS AND AUXILIARY EQUIPMENT (37291)—Continued		
United States, total....	157,797	South.....	170,982	Middle Atlantic.....	327,769	(Z)
Northeast and North Central.	117,529	Maryland.....	1,685	New York.....	231,465	248,264
South.....	32,740	West.....	397,961	New Jersey.....	51,903	72,296
Pacific.....	7,528			Pennsylvania.....	44,401	(Z)
California.....	7,528	RESEARCH AND DEVELOPMENT ON AIRCRAFT ENGINES (37223)		East North Central.....	406,396	(Z)
COMPLETE AIRCRAFT COMMERCIAL TRANSPORT (AIRLINE PASSENGER AND CARGO SERVICE) (37213)		United States, total....	385,339	Ohio.....	184,455	250,067
United States, total....	561,124	Northeast.....	197,117	Indiana.....	105,514	152,146
Pacific.....	504,803	North Central, South and West.....	188,222	Illinois.....	56,770	64,827
All other divisions.....	56,321			Michigan.....	57,221	82,334
MODIFICATIONS, CONVERSIONS, AND OVERHAUL OF PREVIOUSLY ACCEPTED AIRCRAFT (37214)		AIRCRAFT ENGINE PARTS AND ACCESSORIES (37224)		Wisconsin.....	2,436	(Z)
United States, total....	465,455	United States, total....	932,093	West North Central.....	258,305	(Z)
Northeast.....	37,678	New England.....	353,341	Missouri.....	58,111	69,800
New York.....	35,007	Connecticut.....	281,288	Kansas.....	196,967	144,949
South.....	206,497	Middle Atlantic.....	245,569	South Atlantic.....	61,497	112,089
All other divisions.....	221,280	New York.....	66,349	Maryland.....	32,563	84,114
California.....	88,300	North Central.....	293,201	Florida.....	7,619	17,586
		Ohio.....	123,743	East South Central.....	31,993	26,751
		Indiana.....	87,132	West South Central.....	100,821	205,493
		Michigan.....	56,316	Texas.....	92,910	196,508
		South Atlantic.....	3,638	Mountain.....	36,618	1,216,846
		West.....	36,344	Colorado.....	20,074	
		AIRCRAFT PARTS AND AUXILIARY EQUIPMENT (37291)		Pacific.....	861,752	1,018,491
		United States, total....	2,215,290	California.....	755,870	
		New England.....	130,139	RECEIPTS FROM RESEARCH AND DEVELOPMENT ON AIRCRAFT PARTS (37293)		
		Massachusetts.....	25,073	United States, total....		74,541
		Connecticut.....	102,254	East North Central.....		6,427
				Pacific.....		17,990
				California.....		17,990
				All other divisions.....		50,124

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million reported.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 37212, New York, Pennsylvania, Kansas, Georgia, Florida, Oklahoma, and Texas; 37213, Connecticut, New York, Pennsylvania, Maryland, Georgia, Texas, Washington, and California; 37214, Connecticut, Ohio, Indiana, Missouri, Kansas, North Carolina, Georgia, Florida, Alabama, Oklahoma, Texas, Wyoming, Arizona, and Washington; 37216, Connecticut, Pennsylvania, Ohio, Indiana, Missouri, Kansas, Georgia, Alabama, Texas, Arizona, Washington, and California; 37223, Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Ohio, Indiana, Michigan, Florida, and California; 37224, Maine, Vermont, Massachusetts, New Jersey, Pennsylvania, Illinois, Wisconsin, Iowa, Florida, Arizona, Utah, and California; 37291, Rhode Island, Minnesota, Delaware, Virginia, Georgia, Tennessee, Oklahoma, Idaho, Arizona, Washington, and Oregon; 37293, Massachusetts, Connecticut, New York, Ohio, and Kansas.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3721.—AIRCRAFT			
	Materials, components, parts, containers, and supplies, total..	.....	(X)	2,458,694	(X)	2,547,029
	Mill shapes and forms:					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	3,919	1,935	7,775	2,513
331012	Sheet and strip.....	..do.....	8,594	3,657	4,761	1,611
331013	Plates.....	..do.....	3,085	745	7,927	1,900
331015	Structural shapes.....	..do.....	3,436	1,059	5,645	1,441
331017	Wire and wire products.....	..do.....	1,648	817	1,678	1,078
331019	All other carbon steel mill shapes and forms.....	..do.....	2,183	1,804	3,928	2,240
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	5,144	4,189	6,234	3,903
331029	All other alloy steel mill shapes and forms.....	..do.....	2,887	2,686	3,045	3,100
331031	Stainless steel.....	..do.....	2,237	5,249	5,042	10,305
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction only).....	1,000 lbs.....	628	930	374	389
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	3,350	4,474	4,008	7,219
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	187	355	659	645
335123	Plate, sheet, and strip, including military cups and discs.....	..do.....	398	580		
335127	Pipe and tube.....	..do.....	243	303		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	..do.....	51,623	38,107	76,104	57,870
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	..do.....	16,672	21,237	33,990	34,793
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welding tubing, etc.).....	..do.....	8,111	4,766		
335601	Titanium and titanium-base alloy.....	..do.....	1,077	15,237	(NA)	(NA)
	Castings (rough and semifinished): <sup>1</sup>					
332300	Steel.....	Short tons.....	3,164	5,620	1,028	1,718
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	5,394	8,515	5,143	9,986
336200	Copper and copper-base alloy.....	..do.....	(NA)	479	126	161
	Forgings: <sup>1</sup>					
339100	Iron and steel.....	Short tons.....	4,160	6,252	3,032	7,358
339200	Aluminum and aluminum-base alloy.....	1,000 lbs.....	9,754	14,567	12,613	25,452
339201	Titanium and titanium-base alloy.....	..do.....	76	736	(NA)	(NA)
	Electric motors and generators: <sup>1</sup>					
362110	Fractional horsepower electric motors (under 1 hp.)					
363115	Timing motors, synchronous and subsynchronous.....	Number.....	3,295	418	7,000	636
	Other fractional horsepower electric motors (excluding timing motors).....	..do.....	7,459	479		
362120	Integral horsepower motors and generators (1 hp. and over).....	..do.....	726	445	(NA)	(NA)
	Bearings:					
356218	Ball.....	.....	(X)	3,158	(X)	12,206
356228	Roller.....	.....	(X)	1,959		
372911	Hydraulic fluid power pumps, motors, and related hydraulic equipment.....	.....	(X)	25,502	(X)	28,000
220123	Broad woven fabrics (cotton, wool, man-made fiber fabrics, etc.)...	1,000 lin. yds...	1,518	4,211	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	2,233,785	(X)	2,327,562
976000	Materials, components, parts, containers, and supplies consumed, n.s.k..	.....	(X)	44,438	(X)	4,943
			INDUSTRY 3722.—AIRCRAFT ENGINES AND PARTS			
	Materials, components, parts, containers, and supplies, total..	.....	(X)	1,386,229	(X)	1,442,387
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	10,033	2,313	65,769	12,389
331012	Sheet and strip.....	..do.....	9,579	2,959	22,573	4,487
331013	Plates.....	..do.....	6,704	1,362	8,314	1,337
331015	Structural shapes.....	..do.....	302	84	1,275	217
331017	Wire and wire products.....	..do.....	205	141	696	350
331019	All other carbon steel mill shapes and forms.....	..do.....	2,883	1,007	6,507	4,215
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	18,693	13,434	14,217	9,107
331029	All other alloy steel mill shapes and forms.....	..do.....	4,573	7,451	10,750	11,040

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3722.—AIRCRAFT ENGINES AND PARTS—Continued			
	Mill shapes and forms (except castings)—Continued					
331031	Stainless steel.....	Short tons.....	17,131	40,994	24,312	50,781
335790	Copper and copper-base alloy: Insulated wire and cable.....	1,000 lbs. (copper content) 1,000 lbs.....	494 14	508 14	429	356
335728	Bare wire (for electrical conduction only).....	1,000 lbs.....	1,655	1,094	836	524
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	.....do.....	95	83		
335123	Plate, sheet, and strip, including military cups and discs....	.....do.....	41	33		
335127	Pipe and tube.....	.....do.....				
	Aluminum and aluminum-base alloy:					
335205	Sheet, plate, and foil.....	.....do.....	3,777	3,089	5,062	3,471
335202	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	.....do.....	2,070	1,649		
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	.....do.....	2,448	2,789		
335601	Titanium and titanium-base alloy.....	.....do.....	1,034	5,185	(NA)	(NA)
333401	Aluminum and aluminum-base alloy refinery shapes.....	Short tons.....	159	240	(NA)	(NA)
	Castings (rough and semifinished): <sup>1</sup>					
332300	Steel.....	.....do.....	7,420	24,867	21,316	39,507
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	14,290	26,665	8,243	10,258
336200	Copper and copper-base alloy.....	.....do.....	321	292	1,067	846
	Forgings: <sup>1</sup>					
339100	Iron and steel.....	Short tons.....	37,760	65,177	59,139	126,240
339200	Aluminum and aluminum-base alloy.....	1,000 lbs.....	18,672	20,764	12,076	13,476
339201	Titanium and titanium-base alloy.....	.....do.....	4,530	23,326	(NA)	(NA)
	Electric motors and generators: <sup>1</sup>					
	Fractional horsepower electric motors (under 1 hp.):					
362110	Timing motors, synchronous and subsynchronous.....	Number.....	(D)	(D)	12,000	713
362115	Other fractional horsepower electric motors (excluding timing motors).....	.....do.....	32,216	3,214		
362120	Integral horsepower motors and generators (1 hp. and over).....	.....do.....	664	174	(NA)	(NA)
	Bearings:					
356218	Ball.....	.....do.....	(X)	8,837	(X)	15,813
356228	Roller.....	.....do.....	(X)	8,479		
372911	Hydraulic fluid power pumps, motors, and related hydraulic equipment.....	.....do.....	(X)	2,120	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....do.....	(X)	1,056,676	(X)	1,131,142
976000	Materials, components, parts, containers, and supplies consumed, n.s.k.....	.....do.....	(X)	61,209	(X)	3,285
			INDUSTRY 3723.—AIRCRAFT PROPELLERS AND PARTS			
	Materials, components, parts, containers, and supplies, total..	.....do.....	(X)	64,501	(X)	98,042
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	4,837	4,534	232	134
331012	Sheet and strip.....	.....do.....				
331013	Plates.....	.....do.....				
331015	Structural shapes.....	.....do.....				
331017	Wire and wire products.....	.....do.....				
331019	All other carbon steel mill shapes and forms.....	.....do.....				
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	.....do.....	2,494	2,494	2,247	
331029	Shapes and forms.....	.....do.....				
331031	Stainless steel.....	.....do.....				
	Copper and copper-base alloy:					
335728	Insulated wire and cable.....	1,000 lbs. (copper content)	(D)	(D)	(NA)	99
336790	Bare wire (for electrical conduction only).....	1,000 lbs.....	(D)	(D)		
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	.....do.....	-	-		
335123	Plate, sheet, and strip, including military cups and discs....	.....do.....	(D)	(D)		
335127	Pipe and tube.....	.....do.....	-	-		

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3723.—AIRCRAFT PROPELLERS AND PARTS—Con.			
	Mill shapes and forms (except castings)—Continued					
335	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	1,000 lbs.....	150	390	222	415
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	...do.....				
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	...do.....				
	Castings (rough and semifinished): <sup>1</sup>					
332300	Steel.....	Short tons.....	(D)	(D)	(NA)	(NA)
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	(D)	(D)	(NA)	(NA)
336200	Copper and copper-base alloy.....	...do.....	(D)	(D)	568	609
	Forgings: <sup>1</sup>					
339100	Iron and steel.....	Short tons.....	(D)	(D)	(NA)	(NA)
339200	Aluminum and aluminum-base alloy.....	1,000 lbs.....	(D)	(D)	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	59,246	(X)	93,191
976000	Materials, components, parts, containers, and supplies, n.s.k.....		(X)	331	(X)	1,347
			INDUSTRY 3729.—AIRCRAFT EQUIPMENT, N.E.C.			
	Materials, components, parts, containers, and supplies, total..		(X)	996,750	(X)	930,073
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	10,479	3,448	13,698	5,330
331012	Sheet and strip.....	...do.....	20,875	3,990	12,910	3,316
331013	Plates.....	...do.....	14,418	2,599	5,299	1,202
331015	Structural shapes.....	...do.....	3,437	917	(NA)	4,210
331017	Wire and wire products.....	...do.....	1,799	410	(NA)	1,727
331019	All other carbon steel mill shapes and forms.....	...do.....	3,300	1,235	2,368	1,105
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	...do.....	9,873	5,594	13,566	8,073
331029	All other alloy steel mill shapes and forms.....	...do.....	3,944	3,237	19,470	13,228
331031	Stainless steel.....	...do.....	9,286	15,948	6,133	11,971
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction only).....	...do.....	259	226	273	252
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	835	2,038	770	989
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	3,116	1,350	4,137	2,340
335123	Plate, sheet, and strip, including military cups and disks.....	...do.....	138	156		
335127	Pipe and tube.....	...do.....	161	168		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	...do.....	36,442	25,517	41,275	29,375
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	...do.....	29,418	30,059	37,113	23,356
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	...do.....	16,346	9,048		
335601	Titanium and titanium-base alloy mill shapes and forgings.....	...do.....	510	6,319	(NA)	(NA)
333401	Aluminum and aluminum-base alloy refinery shapes.....	Short tons.....	193	147	(NA)	(NA)
	Castings (rough and semifinished): <sup>1</sup>					
332300	Steel.....	...do.....	7,430	9,104	17,212	20,214
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	12,625	14,787	13,008	13,791
336200	Copper and copper-base alloy.....	...do.....	713	413	700	682
	Forgings: <sup>1</sup>					
339100	Iron and steel.....	Short tons.....	20,055	23,150	29,810	17,612
339200	Aluminum and aluminum-base alloy.....	1,000 lbs.....	10,784	11,735	10,412	11,028
	Electric motors and generators: <sup>1</sup>					
	Fractional horsepower electric motors (under 1 hp.)					
362110	Timing motors synchronous and subsynchronous.....	Thousand.....	20	1,150	44	3,223
362115	Other fractional horsepower electric motors (excluding timing motors).....	...do.....	108	1,862	30	2,339
362120	Integral horsepower motors and generators (1 hp. and over).....	...do.....	20	5,844	(NA)	(NA)
	Bearings:					
356218	Ball.....		(X)	8,186	(X)	5,998
356228	Roller.....		(X)	2,091		

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3729.—AIRCRAFT EQUIPMENT, N.E.C.—Continued			
372911	Hydraulic fluid power pumps, motors, and related hydraulic equipment.....		(X)	21,819	(X)	<sup>2</sup> 13,000
220123	Broad woven fabrics (cotton, wool, man-made fiber fabrics, etc.)...	1,000 lin. yds...	1,285	2,363	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	732,343	(X)	721,291
976000	Materials, components, parts, containers, and supplies consumed, n.s.k.....		(X)	49,497	(X)	14,421

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Does not include materials produced and consumed at the same establishment.

<sup>2</sup>Represents estimates published in MC58(1)-7 (Supplement), "Selected Materials Consumed," from data collected in a supplemental survey on Form MA-131, "Consumption of Materials, Parts, Containers and Supplies During 1958." This survey was limited to large establishments in selected chemical, machinery and equipment industries and resulted in estimates which are subject to greater error than are the figures on materials consumption collected as a regular part of the census of manufactures. This material was described as pumps and compressors, including hydraulic motors.

**TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962**

Item	Aircraft (SIC 3721)	Aircraft engines and parts (SIC 3722)	Aircraft propellers and parts (SIC 3723)	Aircraft equipment, n.e.c. (SIC 3729)
Total cost of purchased fuels and electric energy.....\$1,000..	31,477	27,157	1,650	24,846
Total cost of purchased fuels.....do....	7,969	7,437	415	7,418
Bituminous coal, lignite, and anthracite:				
Quantity.....1,000 short tons..	128	162	-	97
Cost.....\$1,000..	884	1,178	-	700
Coke and breeze:				
Quantity.....1,000 short tons..	-	-	-	(S)
Cost.....\$1,000..	-	-	-	(S)
Fuel oil (distillate and residual):				
Quantity.....1,000 barrels of 42 gallons..	909	1,201	(S)	(S)
Cost.....\$1,000..	2,633	3,716	(S)	(S)
Gas (natural, manufactured, still, blast furnace, and coke oven):				
Quantity.....million cu.ft..	10,462	3,382	(S)	(S)
Cost.....\$1,000..	3,783	1,880	(S)	(S)
Other fuels.....do....	669	663	(S)	1,076
Electric energy:				
Purchased:				
Quantity.....million kw.-hrs..	2,475	1,824	101	1,362
Cost.....\$1,000..	23,508	19,720	1,235	17,428
Generated less sold.....million kw.-hrs..	19	(S)	(S)	-
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	971	1,168	59	778
Prime movers, total.....do....	134	129	1	70
Driving generators.....do....	43	19	(Z)	7
Not driving generators.....do....	91	110	1	63
Electric motors, total.....do....	851	1,042	58	709
Driven by purchased energy.....do....	837	1,039	58	708
Driven by energy generated at establishment.....do....	15	3	(Z)	-
Aggregate horsepower per 100 production workers.....	538	1,133	1,037	692

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3721-	AIRCRAFT										
	Entire industry.....	100	302,201	2,369,416	166,744	342,120	1,097,103	3,542,695	2,773,836	16,316,531	114,658
	Establishments with—										
	90% or more specialization..	61	57,711	431,562	34,515	68,500	217,218	765,121	423,983	1,189,104	11,905
	75-89% specialization.....	18	101,359	643,521	57,328	116,884	315,711	1,143,607	1,038,256	2,181,863	38,789
37211	Complete aircraft, military type (primary product class of estab.)	15	147,763	1,194,692	84,584	173,087	585,398	1,840,314	1,546,809	3,387,123	73,876
37214	Modifications, conversions and overhaul of previously accepted aircraft (primary product class of estab.).....	18	29,683	220,904	16,350	32,599	95,067	320,336	158,257	478,593	5,541
	Establishments with—										
	90% or more specialization....	11	5,472	31,793	3,447	6,884	17,956	47,817	23,200	71,017	666
37216	Other aeronautical services for aircraft (primary product class of estab.).....	13	72,947	573,983	32,347	67,643	208,871	830,149	530,388	1,360,537	22,150
3722-	AIRCRAFT ENGINES AND PARTS										
	Entire industry.....	232	190,834	1,486,081	105,890	222,000	705,727	2,244,317	1,876,762	4,100,520	111,529
	Establishments with—										
	90% or more specialization..	159	140,340	1,082,147	73,081	154,536	480,255	1,653,554	1,434,862	3,067,669	89,437
	75-89% specialization.....	17	1,729	12,156	1,249	2,691	8,188	20,626	17,487	39,326	509
37221	Aircraft engines for U.S. military customers (primary product class of estab.).....	14	66,618	490,874	40,645	85,737	263,704	788,120	842,447	1,641,250	30,958
	Establishments with—										
	90% or more specialization....	5	197	1,466	160	362	1,208	1,834	1,216	3,004	155
37223	Research and development on aircraft engines (primary product class of estab.).....	7	7,552	62,402	2,842	6,381	19,796	76,304	82,784	157,094	3,989
37224	Aircraft engine parts and accessories (primary product class of estab.).....	116	39,227	272,834	26,116	53,936	168,291	442,043	269,923	724,166	14,405
	Establishments with—										
	90% or more specialization....	66	10,962	73,872	8,333	17,548	51,963	130,785	69,925	200,482	3,186
	75-89% specialization.....	22	4,123	27,246	2,898	6,069	17,894	43,770	27,991	73,356	1,292
37225	Complete missile or space vehicle engines and/or propulsion units (primary product class of estab.).....	9	17,716	131,105	8,519	17,223	60,898	213,936	203,789	413,574	6,249
37226	Research and development on complete missile or space vehicle engines and/or propulsion units (primary product class of estab.)	14	51,733	473,473	22,334	46,865	158,727	634,924	421,999	1,021,059	51,159
37228	Missile and space vehicle engines and/or propulsion units parts or accessories (primary product class of estab.).....	30	5,377	38,933	3,425	7,587	22,406	56,627	40,970	96,091	3,767
	Establishments with—										
	90% or more specialization....	11	1,464	9,478	915	1,954	5,250	15,035	10,327	25,453	1,591
3729	AIRCRAFT EQUIPMENT, N.E.C.										
	Entire industry.....	1,000	175,167	1,319,476	111,430	232,819	745,501	1,966,904	1,167,527	3,168,607	61,931
	Establishments with—										
	90% or more specialization..	734	76,318	559,039	47,560	100,600	302,153	793,149	479,396	1,274,266	33,047
	75-89% specialization.....	59	13,639	95,862	8,656	18,130	54,379	125,362	86,542	221,471	3,609

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3729-	AIRCRAFT EQUIPMENT, N.E.C.—Con.										
37291	Other aircraft parts and auxiliary equipment (primary product class of estab.).....	547	106,799	776,062	72,855	151,775	470,313	1,127,834	736,211	1,875,982	32,766
	Establishments with—										
	90% or more specialization....	372	38,240	267,813	26,535	55,586	167,418	398,269	266,101	658,787	13,479
	75-89% specialization.....	48	7,726	54,301	5,272	10,869	33,434	72,055	45,424	117,263	2,359
37292	Guided missile components and subassemblies, n.e.c. (primary product class of estab.).....	98	40,267	317,295	24,295	51,089	170,077	520,283	275,435	806,543	11,512
	Establishments with—										
	90% or more specialization....	50	8,383	59,674	6,192	14,057	38,422	76,697	39,071	116,830	4,599
	75-89% specialization.....	10	1,205	7,257	842	1,540	4,279	13,192	7,604	18,977	716
37293	Research and development on aircraft parts (primary product class of estab.).....	8	1,159	8,336	1,050	2,278	7,848	11,371	6,055	17,338	561
37294	Research and development on missile parts and components, n.e.c. (primary product class of estab.).....	29	21,990	185,286	9,353	19,688	72,747	255,718	125,701	390,171	14,440

n.e.c. Not elsewhere classified.

TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
INDUSTRY 3721.—AIRCRAFT								
Nonferrous foundry (except die casting).....	11	3	5	3	165	9	42	114
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	6	-	1	5	559	-	(D)	(D)
Electroplating and other plating.....	27	10	10	7	494	29	101	364
Galvanizing and other hot dip coating.....	7	1	3	3	139	(D)	(D)	105
Heat treating of metals.....	34	13	8	13	517	31	65	421
Automatic screw machine department.....	10	5	5	-	51	12	39	-
Machine shop.....	53	10	13	30	12,980	26	134	12,820
Tool and die shop.....	38	7	4	27	8,559	18	42	8,499
Foundry pattern shop.....	16	2	5	9	717	(D)	(D)	658
Plate or structural fabrication.....	38	7	9	22	9,129	19	95	9,015
Stamping, blanking and forming of metals.....	48	12	10	26	6,282	23	97	6,162
Painting, lacquering and enameling on metals.....	50	14	8	28	2,768	29	87	2,652
Plastics molding.....	31	7	5	19	1,859	16	59	1,784
Assembly of product.....	56	6	8	42	45,083	10	90	44,983
Shipping department, including packing and crating....	52	23	5	24	2,023	44	62	1,917
INDUSTRY 3722.—AIRCRAFT ENGINES AND PARTS								
Ferrous foundry.....	6	2	3	1	77	(D)	(D)	(D)
Nonferrous foundry (except die casting).....	6	1	3	2	114	(D)	(D)	(D)
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	14	4	4	6	741	13	37	691
Electroplating and other plating.....	36	14	13	9	640	28	106	506
Galvanizing and other hot dip coating.....	8	3	3	2	83	7	(D)	(D)
Heat treating of metals.....	73	39	18	16	1,012	76	155	781
Automatic screw machine department.....	36	20	12	4	295	42	104	149
Machine shop.....	166	29	34	103	27,149	45	374	26,730
Tool and die shop.....	91	23	32	36	3,605	52	303	3,250
Foundry pattern shop.....	11	4	4	3	138	6	46	86
Plate or structural fabrication.....	25	6	6	13	1,078	10	61	1,007
Stamping, blanking and forming of metals.....	62	23	20	19	1,750	38	212	1,500
Painting, lacquering and enameling on metals.....	51	30	14	7	452	50	128	274
Plastics molding.....	17	5	4	8	675	10	35	630
Assembly of product.....	97	24	25	48	8,084	42	251	7,791
Shipping department, including packing and crating....	130	85	34	11	1,244	146	326	772

See footnotes at end of table.



TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963—Continued

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3723.—AIRCRAFT PROPELLERS AND PARTS							
Tool and die shop.....	4	2	-	2	(D)	(D)	-	(D)
Foundry pattern shop.....	1	1	-	-	(D)	(D)	-	-
Plate or structural fabrication.....	1	1	-	-	(D)	(D)	-	-
Stamping, blanking and forming of metals.....	3	1	1	1	(D)	(D)	(D)	(D)
Painting, lacquering and enameling on metals.....	4	2	-	2	(D)	(D)	-	(D)
Plastics molding.....	3	-	2	1	(D)	-	(D)	(D)
Assembly of product.....	6	1	2	3	425	(D)	(D)	(D)
Shipping department, including packing and crating....	6	4	1	1	(D)	(D)	(D)	(D)
	INDUSTRY 3729.—AIRCRAFT EQUIPMENT, N.E.C.							
Ferrous foundry.....	8	3	2	3	183	6	(D)	(D)
Nonferrous foundry (except die casting).....	10	4	1	5	206	(D)	(D)	182
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	10	5	3	2	126	(D)	(D)	(D)
Electroplating and other plating.....	65	34	23	8	506	69	211	226
Galvanizing and other hot dip coating.....	8	6	1	1	42	(D)	(D)	(D)
Heat treating of metals.....	98	56	30	12	588	95	262	231
Automatic screw machine department.....	65	38	19	8	765	71	161	533
Machine shop.....	466	94	150	222	24,082	141	1,577	22,364
Tool and die shop.....	159	71	52	36	4,070	149	481	3,440
Foundry pattern shop.....	20	9	8	3	261	21	58	182
Plate or structural fabrication.....	63	20	20	23	1,744	36	202	1,506
Stamping, blanking and forming of metals.....	149	69	57	23	2,881	125	528	2,218
Painting, lacquering and enameling on metals.....	153	110	33	10	1,035	184	305	546
Plastics molding.....	37	20	7	10	699	42	58	599
Assembly of product.....	266	84	64	118	17,257	151	620	16,486
Shipping department, including packing and crating....	294	209	70	15	1,671	342	629	700

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

Item	Industry			
	3721	3722	3723	3729
Total number of establishments in the industry.....	100	232	14	1,000
Number of establishments which reported one or more of the specified operations	65	195	9	542
Percent of industry production workers in these establishments.....	90-95	95-100	95-100	90-95
Number of establishments which reported "none" of the operations apply.....	16	18	-	32
Percent of industry production workers in these establishments.....	0-5	0-5	-	0-5
Percent of industry production workers in establishments which completed the metalworking operations inquiry.....	90-95	95-100	95-100	90-95

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.

## SHIP AND BOAT BUILDING, RAILROAD AND MISCELLANEOUS TRANSPORTATION EQUIPMENT

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3731—Ship Building and Repairing
- 3732—Boat Building and Repairing
- 3741—Locomotives and Parts
- 3742—Railroad and Street Cars
- 3751—Motorcycles, Bicycles, and Parts
- 3791—Trailer Coaches
- 3799—Transportation Equipment, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3731—SHIP BUILDING AND REPAIRING

This industry comprises establishments primarily engaged in building and repairing all types of ships, barges, canal boats, and lighters, whether propelled by sail or motor power or towed by other craft. This industry also includes the conversion and reconversion of ships. Establishments primarily engaged in fabricating structural assemblies or components for ships, or subcontractors engaged in ship painting, joinery, carpentry work, electrical wiring installation, etc., are not classified in this industry. For a detailed list of products of industry 3731, refer to table 6A, product codes 3731110 to 3731659.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

The total value of work done and other receipts of the Ship Building and Repairing Industry totaled \$1,680 million. This amount included receipts from primary activities (ship building and repairing) valued at \$1,508 million, shipments of products primary to other industries (secondary products) valued at \$118 million, and miscellaneous receipts at \$54 million.

The value of ship building and repairing represents value of work done during the year. This provides a more adequate measure of the activity in this industry than value of vessels completed and delivered, primarily because of length of the production cycle, which



may be several years for some vessels. Value of shipments (deliveries) would result in a distortion for establishments working on a vessel all year, but not completing it during the year or, conversely, for establishments completing and delivering a vessel during a year when most of the work was performed in previous years. Respondents were requested to compute the value of work done by including the cost of labor, the cost of purchased materials and parts received during 1963, overhead and profits by one of the following methods: (1) estimating the percentage of completion during 1963, (2) reporting net billings for work done during 1963, or (3) reporting payments received for work done during 1963.

This industry's receipts for ship building and repairing represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent. Secondary products shipped by this industry in 1963 include fabricated structural iron and steel (\$36 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 51 percent of the total value of work done is represented by plants specializing in self-propelled U.S. military ships, and 16 percent in self-propelled non-military ships.

Shipments of ship building and repairing by this industry represented 99 percent of all shipments of these products (\$1,518 million) by all industries. In 1958 the coverage ratio was also 99 percent.

#### 3732—BOAT BUILDING AND REPAIRING

This industry comprises establishments primarily engaged in building and repairing all types of boats, except rubber boats (industry 3069). Establishments primarily engaged in cleaning and storing boats and in the rental of dock space, and yacht clubs are classified in nonmanufacturing industries. For a detailed list of products of industry 3732, refer to table 6A, product codes 3732111 to 3732421.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Boat Building and Repairing Industry totaled \$360 million. This amount included shipments of newly constructed boats and receipts for boat repairs (primary products) valued at \$322 million, shipments of other products (secondary products) valued at \$12 million, and miscellaneous receipts (mainly products bought and resold) at \$27 million.

This industry's shipments of newly constructed boats and receipts for repair of boats represented 97 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent. Secondary products shipped by this industry in 1963 include repair of nonmilitary ships (\$3 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 33 percent of the total industry shipments are represented by plants specializing in inboard motor boats; and 28 percent in outboard motor boats.

Shipments of newly constructed boats and receipts for repair of boats by this industry represented 95 percent of all shipments of these products (\$338 million) by all industries. In 1958 the coverage ratio was also 95 percent. Another industry shipping newly constructed boats and repairing boats was industry 3731, Ship Building and Repairing, over \$2 million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3732, e.g., boat repair, 83 percent, and all other boats, 90 percent.

The production index for the primary products of the industry increased to 185 in 1963 from the 1958 level of 146. The unit value index for 1963 was 114 compared to 126 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3741—LOCOMOTIVES AND PARTS

This industry comprises establishments primarily engaged in building and rebuilding locomotives (including frames and parts; n.e.c.) of any type or gauge. Railroad shops rebuilding and repairing locomotives or building new locomotives are classified in Major Group 40. For a detailed list of products of industry 3741, refer to table 6A, product codes 3741141 to 3741351.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Locomotives and Parts Industry totaled \$438 million. This amount included shipments of locomotives and parts (primary products) valued at \$342 million, shipments of other products (secondary products) valued at \$70 million, and miscellaneous receipts at \$25 million.

This industry's shipments of locomotives and parts represented 83 percent of its total product shipments. The industry specialization ratio in 1958 was 85 percent. Secondary products shipped by this industry in 1963 include land transportation motors, generators, and control equipment and parts (over \$20 million), and diesel and semidiesel engines (over \$2 million).

Shipments of locomotives and parts by this industry represented 90 percent of all shipments of these products (\$378 million) by all industries. In 1958 the coverage ratio was 90 percent. Other industries shipping locomotives and parts include industry 3742, Railroad and Street Cars, over \$5 million; and industry 3323, Steel Foundries, over \$2 million.

The production index for the primary products of the industry decreased to 86 in 1963 from the 1958 level of 89. The unit value index for 1963 was 119 compared to 109 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3742—RAILROAD AND STREET CARS

This industry comprises establishments primarily engaged in building and rebuilding railroad, street, and rapid transit cars and car equipment for operation on rails for freight and passenger service. This industry also includes establishments primarily engaged in manufacturing trackless trolley busses. Establishments primarily engaged in manufacturing mining cars are classified in industry 3532. Repair shops, owned and operated by railroads or local transit companies, rebuilding or repairing cars, or building new cars for their own account, are classified in Major Groups 40 and 41. For a detailed list of products of industry 3742, refer to table 6A, product codes 3742111 to 3742351.



The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Railroad and Street Cars Industry totaled \$927 million. This amount included shipments of railroad and street cars (primary products) valued at \$813 million, shipments of other products (secondary products) valued at \$83 million, and miscellaneous receipts (including products bought and resold) at \$30 million.

This industry's shipments of railroad and street cars represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 87 percent. Secondary products shipped by this industry in 1963 include fabricated metal products, n.e.c. (over \$5 million), and other construction machinery and equipment including construction machinery parts, n.e.c. (over \$5 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 64 percent of the total industry shipments are represented by plants specializing in freight train cars, new; and 31 percent in street cars and parts and accessories for railroad and street cars, and rebuilt passenger and freight train cars.

Shipments of railroad and street cars by this industry represented 93 percent of all shipments of these products (\$871 million) by all industries. In 1958 the coverage ratio was 90 percent. Other industries shipping railroad and street cars and parts include industry 3323, Steel Foundries, \$17 million; and industry 3717, Motor Vehicles and Parts, \$7 million.

The production index for the primary products of the industry increased to 125 in 1963 from the 1958 level of 87. The unit value index for 1963 was 149 compared to 129 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3751—MOTORCYCLES, BICYCLES, AND PARTS

This industry comprises establishments primarily engaged in manufacturing motorcycles, bicycles, and similar equipment and parts. Establishments primarily engaged in assembling motorcycles or bicycles from purchased parts are also included in this industry. Establishments primarily engaged in manufacturing children's vehicles, except bicycles, are classified in industry 3943. For a detailed list of products of industry 3751, refer to table 6A, product codes 3751013 to 3751081.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Motorcycles, Bicycles, and Parts Industry totaled \$193 million. This amount included shipments of motorcycles, bicycles, and parts (primary products) valued at \$152 million, shipments of other products (secondary products) valued at \$32 million, and miscellaneous receipts (mainly products bought and resold) at \$9 million.

This industry's shipments of motorcycles, bicycles, and parts represented 83 percent of its total product shipments. The industry specialization ratio in 1958 was 84 percent. Secondary products shipped by this industry in 1963 include baby carriages and children's vehicles, except bicycles (over \$10 million), and lawn mowers and parts (over \$2 million).

Shipments of motorcycles, bicycles, and parts by this industry represented 93 percent of all shipments of these products (\$163 million) by all industries. In 1958 the coverage ratio was also 93 percent. Other industries shipping motorcycles, bicycles, and parts include industry 3717, Motor Vehicles and Parts, over \$2 million; and industry 3943, Children's Vehicles, over \$2 million.

The production index for the primary products of the industry increased to 226 in 1963 from the 1958 level of 130. The unit value index for 1963 was 81 compared to 92 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3791—TRAILER COACHES

This industry comprises establishments primarily engaged in manufacturing trailer coaches (mobile dwellings) for attachment to passenger cars. For a detailed list of products of industry 3791, refer to table 6A, product codes 3791021 to 3791041.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Trailer Coaches Industry totaled \$713 million. This amount included shipments of trailer coaches, housing types (primary products), valued at \$686 million, shipments of other products (secondary products) valued at \$15 million, and miscellaneous receipts (mainly products bought and resold) at \$12 million.

This industry's shipments of trailer coaches, housing types, represented 98 percent of its total product shipments. The industry specialization ratio in 1958 was 99 percent.

Shipments of trailer coaches, housing types, by this industry represented 99 percent of all shipments of these products (\$690 million) by all industries. In 1958 the coverage ratio was also 99 percent.

The production index for the primary products of the industry increased to 279 in 1963 from the 1958 level of 195. The unit value index for 1963 was 110 compared to 105 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3799—TRANSPORTATION EQUIPMENT, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing transportation equipment, n.e.c. Establishments primarily engaged in manufacturing industrial trucks, tractors, trailers, and stackers are classified in industry 3537, and children's vehicles, except bicycles, in industry 3943. For a detailed list of products of industry 3799, refer to table 6A, product codes 3799115 to 3799298.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Transportation Equipment, N.E.C., Industry totaled \$167 million. This amount included shipments of transportation equipment, n.e.c. (primary products) valued at \$142 million, shipments of other products (secondary products) valued at \$17 million, and miscellaneous receipts (mainly products bought and resold) at \$9 million.

This industry's shipments of transportation equipment, n.e.c., represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was 86 percent. Secondary products shipped by this industry in 1963 include parts and accessories for passenger cars, trucks, and busses shipped to other than motor vehicle manufacturers (\$3 million).

Shipments of transportation equipment, n.e.c., by this industry represented 75 percent of all shipments of these products (\$190 million) by all industries. In 1958 the coverage ratio was 73 percent. Other industries shipping transportation equipment, n.e.c., consisted



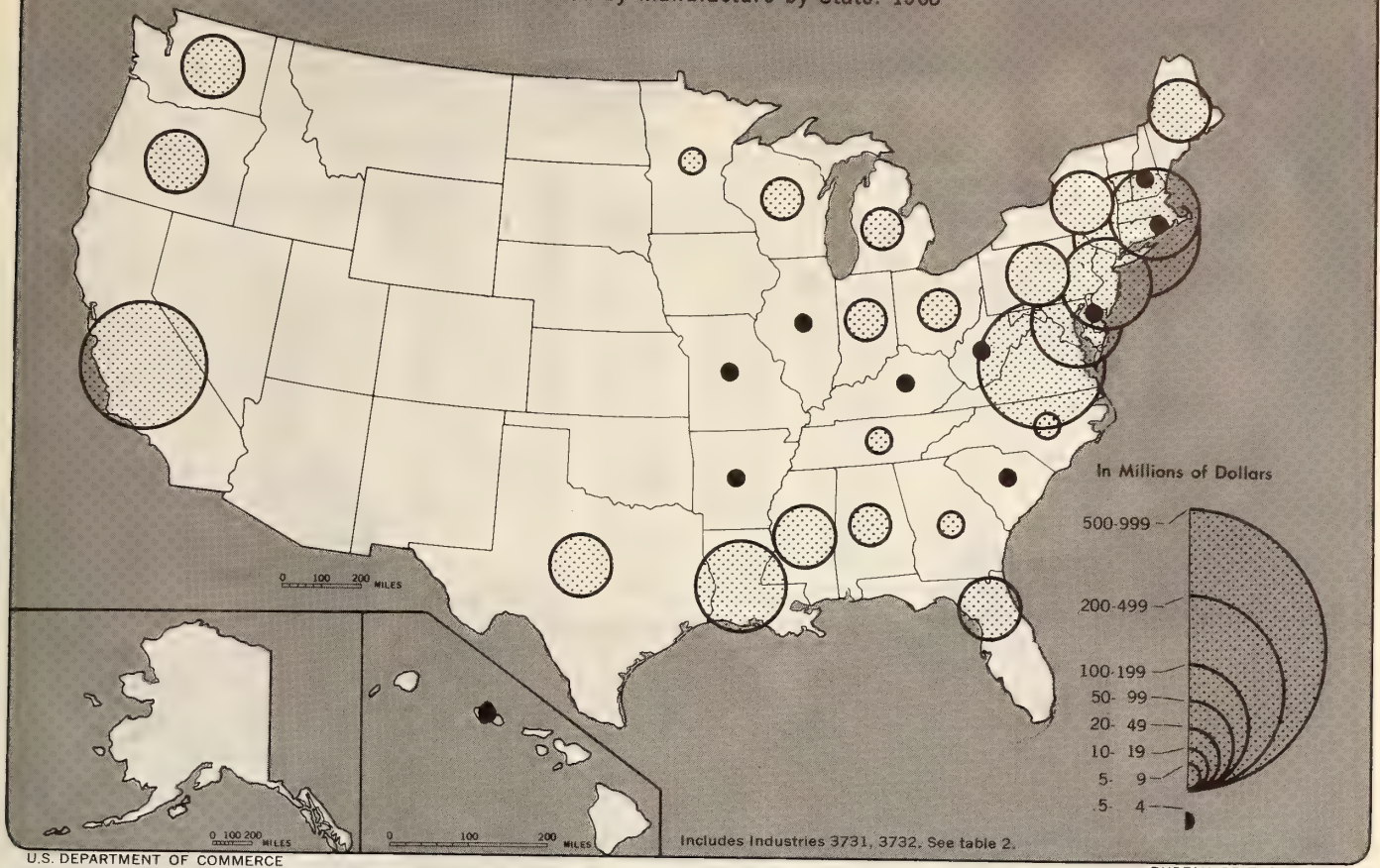
mainly of industry 3522, Farm Machinery and Equipment, \$25 million; and industry 3791, Trailer Coaches, \$4 million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3799, e.g., Automobile trailers, excluding housing type coaches, 89 percent; and Other transportation equipment, 62 percent.



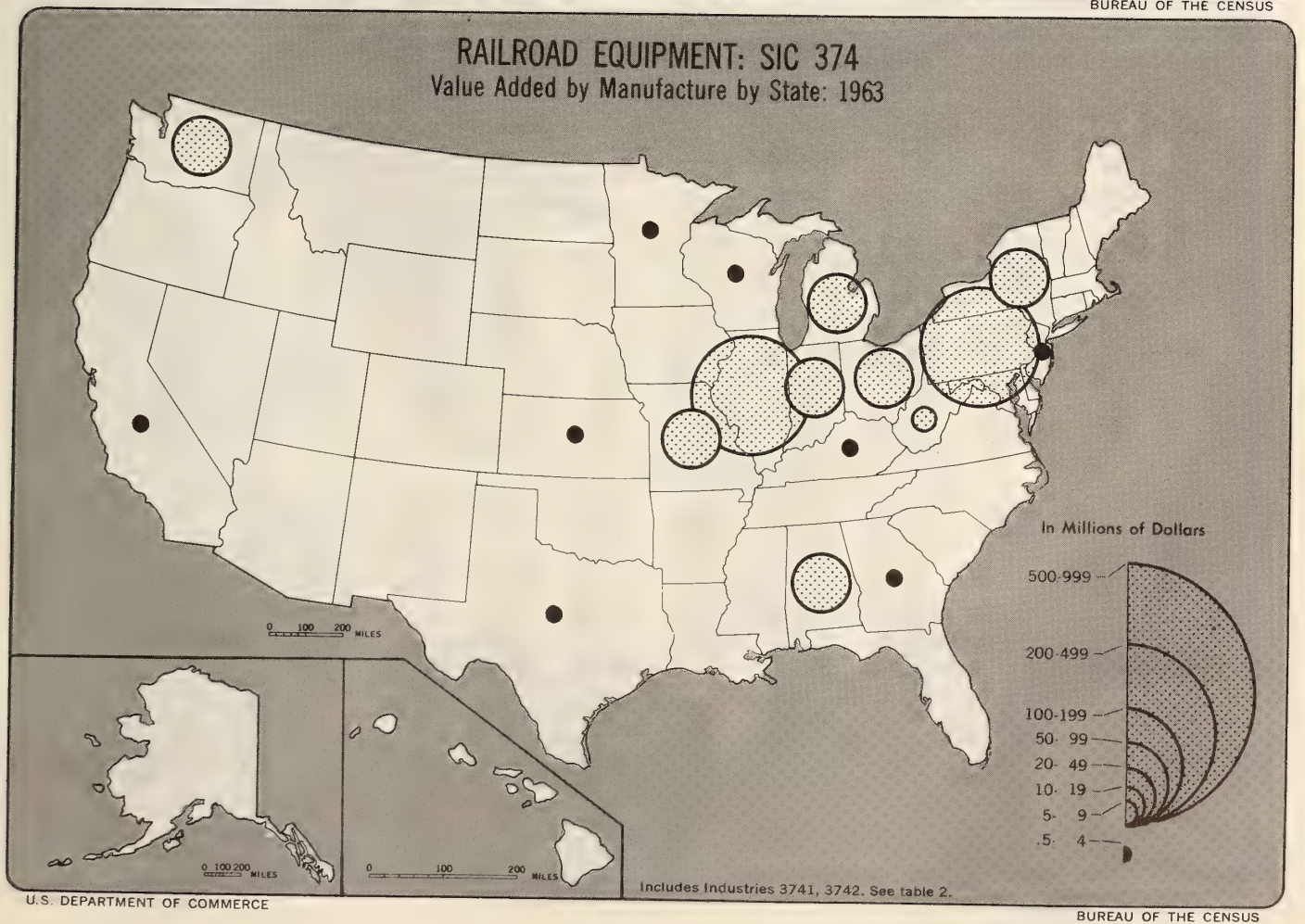
# SHIP AND BOAT BUILDING: SIC 373

## Value Added by Manufacture by State: 1963



# RAILROAD EQUIPMENT: SIC 374

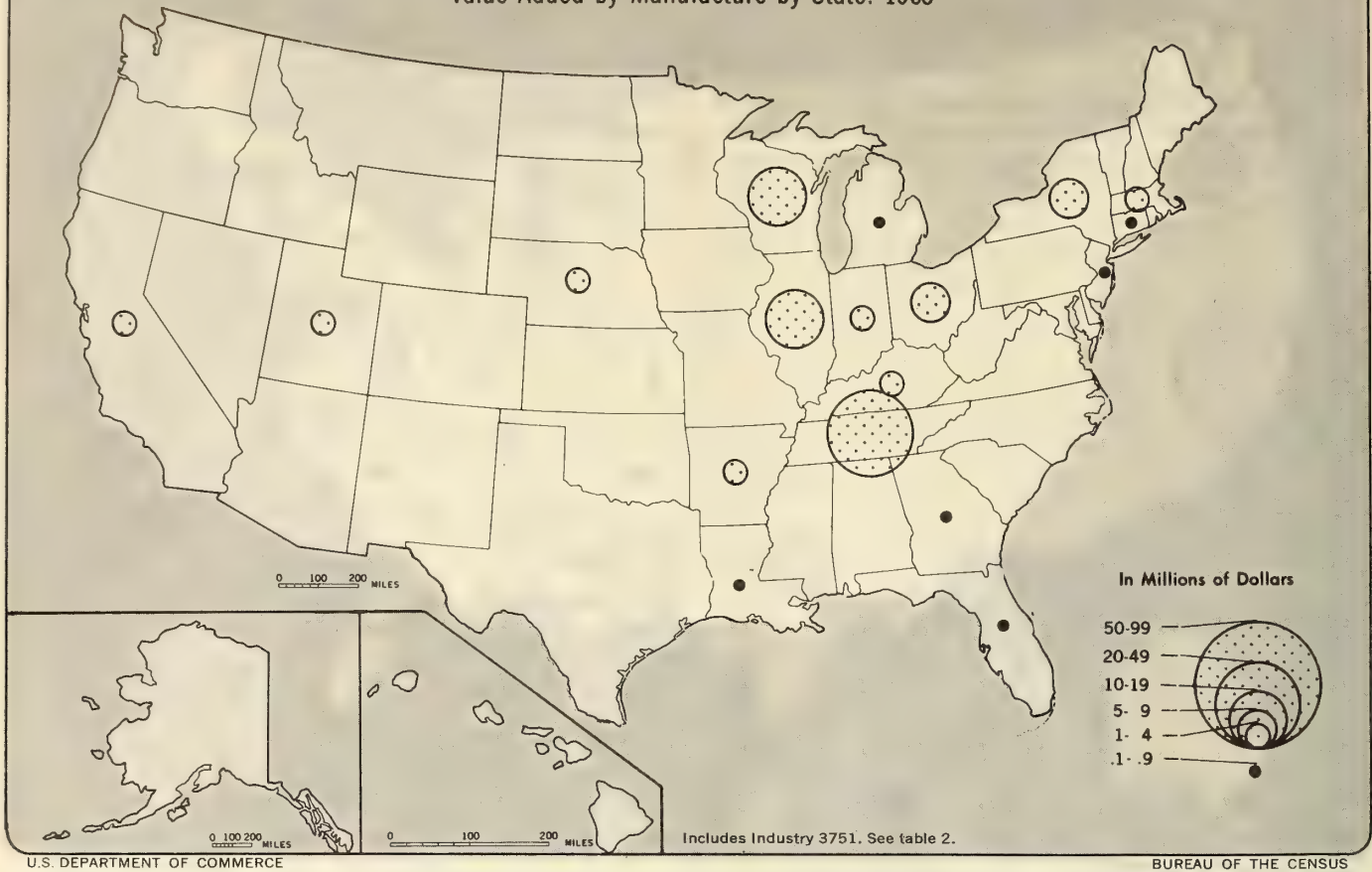
## Value Added by Manufacture by State: 1963





# MOTORCYCLES, BICYCLES, AND PARTS: SIC 375

Value Added by Manufacture by State: 1963



# TRANSPORTATION EQUIPMENT, N.E.C.: SIC 379

Value Added by Manufacture by State: 1963

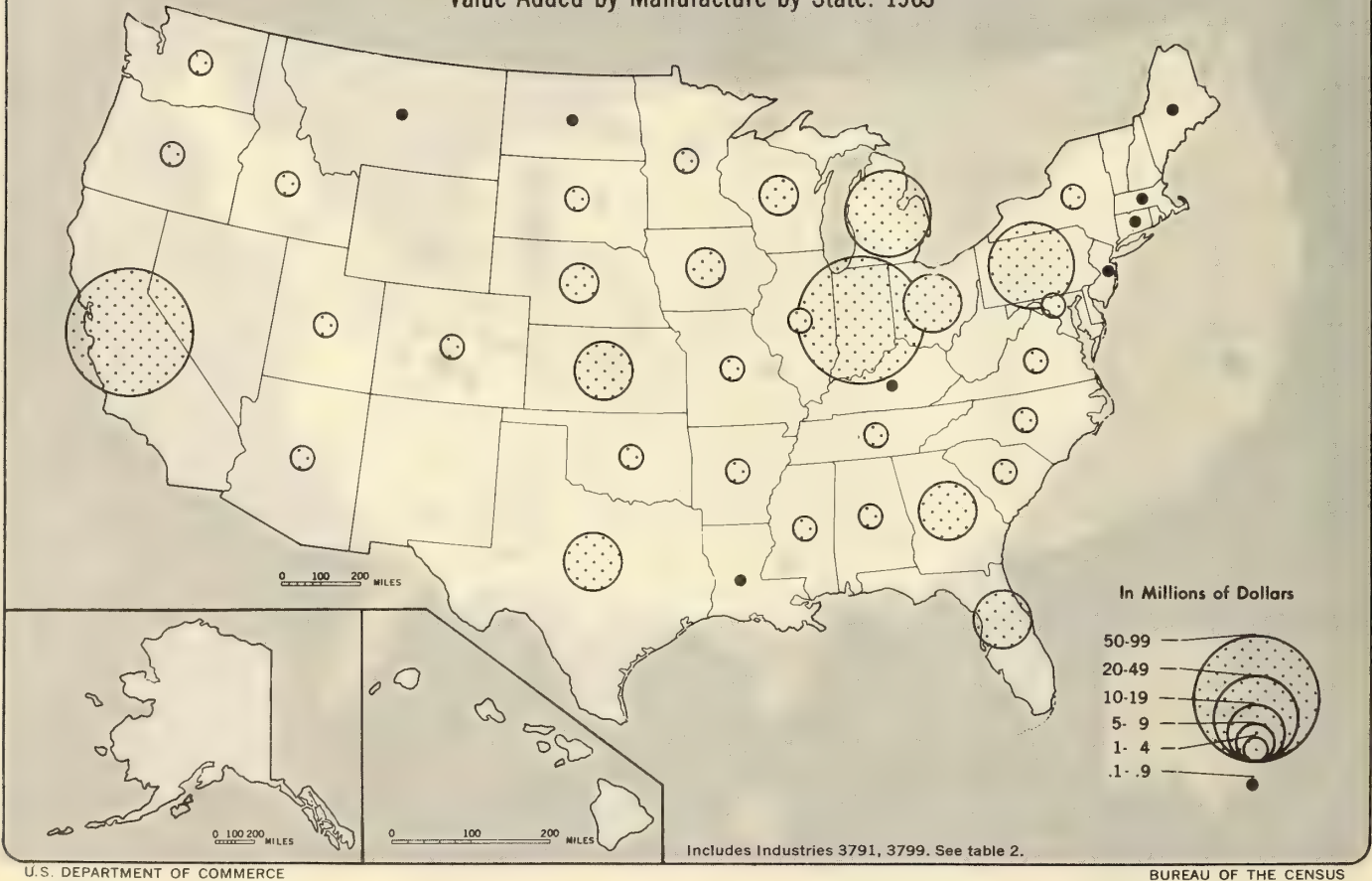


TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new  (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3731.—SHIP BUILDING AND REPAIRING														
1963.....	305	334	200	114,649	782,299	96,527	193,512	610,250	<sup>1</sup> 1,009,690	670,075	<sup>2</sup> 1,679,765	24,477	92	99
1962 <sup>3</sup> .....	(NA)	(NA)	(NA)	111,613	732,722	94,065	186,243	577,392	<sup>1</sup> 953,857	716,345	<sup>2</sup> 1,670,202	23,014	(NA)	(NA)
1961 <sup>3</sup> .....	(NA)	(NA)	(NA)	114,215	728,708	95,730	187,625	569,244	<sup>1</sup> 919,666	701,187	<sup>2</sup> 1,621,204	31,648	(NA)	(NA)
1960 <sup>3</sup> .....	(NA)	(NA)	(NA)	107,694	670,470	90,132	179,721	521,641	<sup>1</sup> 860,050	600,638	<sup>2</sup> 1,460,688	28,868	(NA)	(NA)
1959 <sup>3</sup> .....	(NA)	(NA)	(NA)	116,272	673,230	96,291	186,089	519,390	<sup>1</sup> 951,950	614,111	<sup>2</sup> 1,566,061	33,762	(NA)	(NA)
1958.....	286	319	222	119,147	669,826	101,153	197,707	537,814	<sup>1</sup> 913,687	711,937	<sup>2</sup> 1,625,624	38,737	93	99
1957 <sup>3</sup> .....	(NA)	(NA)	(NA)	121,738	653,534	106,115	207,898	542,450	<sup>1</sup> 842,193	672,675	<sup>2</sup> 1,514,367	57,985	91	99
1956 <sup>3</sup> .....	(NA)	(NA)	(NA)	107,245	545,725	93,056	181,155	449,593	<sup>1</sup> 685,898	497,906	<sup>2</sup> 1,183,289	36,465	(NA)	(NA)
1955 <sup>3</sup> .....	(NA)	(NA)	(NA)	101,767	486,797	88,148	172,520	404,535	<sup>1</sup> 651,516	401,413	<sup>2</sup> 1,052,463	19,439	(NA)	(NA)
1954.....	328	355	245	109,451	504,070	96,196	187,982	421,791	<sup>1</sup> 692,796	391,445	<sup>2</sup> 1,084,242	19,316	92	99
1953 <sup>3</sup> .....	(NA)	(NA)	(NA)	136,562	602,169	120,686	241,576	512,191	802,794	511,064	1,313,858	(NA)	(NA)	(NA)
1952 <sup>3</sup> .....	(NA)	(NA)	(NA)	140,669	592,603	123,814	246,734	503,233	774,775	561,823	1,336,598	(NA)	(NA)	(NA)
1951 <sup>3</sup> .....	(NA)	(NA)	(NA)	107,694	416,074	92,217	180,691	334,671	501,997	382,839	884,836	(NA)	(NA)	(NA)
1950 <sup>3</sup> .....	(NA)	(NA)	(NA)	74,938	253,730	62,334	116,635	194,855	326,767	239,582	566,349	(NA)	(NA)	(NA)
1949 <sup>3</sup> .....	(NA)	(NA)	(NA)	90,969	(NA)	76,673	145,491	(NA)	390,862	310,294	701,156	(NA)	(NA)	(NA)
1947.....	272	302	(NA)	130,805	417,829	115,232	234,103	352,401	520,363	282,198	802,561	(NA)	94	98
INDUSTRY 3732.—BOAT BUILDING AND REPAIRING														
1963.....	1,596	1,626	268	24,861	116,140	20,867	42,011	91,443	183,059	183,207	360,208	13,472	97	95
1962 <sup>3</sup> .....	(NA)	(NA)	(NA)	22,659	104,328	18,804	39,993	80,707	148,051	174,482	314,400	(12,420)	(NA)	(NA)
1961 <sup>3</sup> .....	(NA)	(NA)	(NA)	22,671	100,641	18,717	39,980	77,485	138,146	175,847	316,608	(17,852)	(NA)	(NA)
1960 <sup>3</sup> .....	(NA)	(NA)	(NA)	26,048	110,070	21,991	42,914	85,037	154,413	205,643	360,670	(22,523)	(NA)	(NA)
1959 <sup>3</sup> .....	(NA)	(NA)	(NA)	29,056	121,538	24,862	49,875	96,537	176,409	216,424	389,381	(16,622)	(NA)	(NA)
1958.....	1,626	1,651	277	25,295	103,603	21,156	40,346	81,356	157,309	178,803	329,009	15,298	93	95
1957 <sup>3</sup> .....	(NA)	(NA)	(NA)	22,416	89,727	19,587	40,127	71,561	156,235	146,104	298,542	5,396	94	90
1956 <sup>3</sup> .....	(NA)	(NA)	(NA)	21,243	80,464	18,764	38,554	65,722	144,883	130,497	268,275	(S)	(NA)	(NA)
1955 <sup>3</sup> .....	(NA)	(NA)	(NA)	20,848	68,141	17,871	35,560	56,151	118,064	94,936	207,686	(S)	(NA)	(NA)
1954.....	1,146	1,154	189	16,900	57,599	14,709	28,630	47,112	86,305	77,422	163,626	4,804	93	85
1953 <sup>3</sup> .....	(NA)	(NA)	(NA)	12,352	41,306	10,929	22,689	35,174	60,215	62,532	122,747	(NA)	(NA)	(NA)
1952 <sup>3</sup> .....	(NA)	(NA)	(NA)	11,195	37,330	9,608	18,626	31,248	54,971	45,988	100,959	(NA)	(NA)	(NA)
1951 <sup>3</sup> .....	(NA)	(NA)	(NA)	8,856	29,326	7,670	14,886	24,285	45,466	31,426	76,892	(NA)	(NA)	(NA)
1950 <sup>3</sup> .....	(NA)	(NA)	(NA)	11,706	35,679	10,188	20,310	29,645	52,924	(NA)	(NA)	(NA)	(NA)	(NA)
1949 <sup>3</sup> .....	(NA)	(NA)	(NA)	11,486	(NA)	8,741	18,342	(NA)	46,955	(NA)	(NA)	(NA)	(NA)	(NA)
1947.....	798	808	(NA)	18,850	49,756	16,801	35,013	41,970	66,195	48,179	114,374	(NA)	83	88
INDUSTRIES 3731 AND 3732.—TOTAL FOR SHIP BUILDING AND REPAIRING, AND BOAT BUILDING AND REPAIRING FOR 1939 AND EARLIER YEARS <sup>4</sup>														
1939.....	(NA)	608	(NA)	78,127	130,047	69,241	(NA)	107,570	179,898	158,374	338,272	(NA)	(NA)	(NA)
1937.....	(NA)	544	(NA)	69,887	112,977	62,274	(NA)	93,746	149,045	101,412	250,457	(NA)	(NA)	(NA)
1935.....	(NA)	556	(NA)	51,321	70,309	44,830	(NA)	55,422	93,791	61,109	154,900	(NA)	(NA)	(NA)
1933.....	(NA)	395	(NA)	34,753	41,384	30,885	(NA)	33,890	61,524	31,172	92,696	(NA)	(NA)	(NA)
1931.....	(NA)	518	(NA)	(NA)	(NA)	45,262	(NA)	62,028	114,671	72,322	186,993	(NA)	(NA)	(NA)
1929.....	(NA)	624	(NA)	61,024	103,992	55,089	(NA)	88,274	145,451	85,849	231,300	(NA)	(NA)	(NA)
1927.....	(NA)	559	(NA)	60,494	101,688	55,014	(NA)	87,081	132,501	78,626	271,127	(NA)	(NA)	(NA)
1925.....	(NA)	565	(NA)	55,383	87,324	50,224	(NA)	74,275	110,883	66,299	177,182	(NA)	(NA)	(NA)
1923.....	(NA)	567	(NA)	67,999	105,248	62,287	(NA)	90,720	128,674	84,558	213,232	(NA)	(NA)	(NA)
1921.....	(NA)	640	(NA)	114,257	179,844	106,445	(NA)	155,943	231,466	169,368	400,834	(NA)	(NA)	(NA)
1919.....	(NA)	1,075	(NA)	412,420	662,561	387,446	(NA)	597,447	911,838	710,523	1,622,361	(NA)	(NA)	(NA)
1914.....	(NA)	1,147	(NA)	47,475	37,690	44,489	(NA)	32,931	50,085	38,597	88,682	(NA)	(NA)	(NA)
1909.....	(NA)	1,353	(NA)	43,486	29,303	40,506	(NA)	25,268	42,146	31,214	73,360	(NA)	(NA)	(NA)
1904.....	(NA)	1,097	(NA)	53,234	32,581	50,754	(NA)	29,241	45,306	37,463	82,769	(NA)	(NA)	(NA)
1899.....	(NA)	1,107	(NA)	48,152	26,832	46,747	(NA)	24,825	41,057	33,475	74,332	(NA)	(NA)	(NA)
INDUSTRY 3741.—LOCOMOTIVES AND PARTS														
1963.....	23	24	12	14,337	99,696	10,648	20,803	67,405	186,241	249,785	437,872	7,195	83	90
1962 <sup>3</sup> .....	(NA)	(NA)	(NA)	14,214	99,753	10,684	21,573	68,677	224,169	241,999	443,246	5,231	(NA)	(NA)
1961 <sup>3</sup> .....	(NA)	(NA)	(NA)	11,955	80,080	8,183	16,051	49,067	138,804	189,562	343,992	2,755	(NA)	(NA)
1960 <sup>3</sup> .....	(NA)	(NA)	(NA)	13,519	91,667	9,295	19,651	58,500	176,045	218,992	395,847	3,636	(NA)	(NA)
1959 <sup>3</sup> .....	(NA)	(NA)	(NA)	14,888	94,624	10,577	21,134	61,774	204,925	245,458	434,637	(2,576)	(NA)	(NA)
1958.....	24	25	13	15,282	90,097	10,742	21,092	58,332	152,086	224,754	407,540	5,275	85	90
1957 <sup>3</sup> .....	(NA)	(NA)	(NA)	20,790	115,897	16,064	31,801	83,522	242,227	345,910	613,110	12,191	(NA)	(NA)
1956 <sup>3</sup> .....	(NA)	(NA)	(NA)	23,841	134,612	18,499	38,768	96,010	303,962	370,781	645,378	15,006	(NA)	(NA)
1955 <sup>3</sup> .....	(NA)	(NA)	(NA)	21,372	115,484	16,717	34,026	82,124	233,865	270,404	478,871	6,921	(NA)	(NA)
1954.....	25	29	23	20,891	104,274	15,968	31,439	70,575	164,006	254,656	444,418	6,370	82	95
1953 <sup>3</sup> .....	(NA)	(NA)	(NA)	28,636	127,855	22,409	43,437	95,696	227,239	373,778	601,017	(NA)	(NA)	(NA)
1952 <sup>3</sup> .....	(NA)	(NA)	(NA)	30,647	142,313	24,804	51,794	107,731	275,573	456,647	732,220	(NA)	(NA)	(NA)
1951 <sup>3</sup> .....	(NA)	(NA)	(NA)	33,742	143,334	27,254	55,198	111,323	304,025	488,128	792,153	(NA)	(NA)	(NA)
1950 <sup>3</sup> .....	(NA)	(NA)	(NA)	30,089	114,588	24,194	47,926	87,316	223,775	422,427	646,202	(NA)	(NA)	(NA)
1949 <sup>3</sup> .....	(NA)	(NA)	(NA)	29,798	117,533	23,243	51,126	89,091	204,440	403,273	607,713	(NA)	(NA)	(NA)
1947.....	33	36	(NA)	30,419	97,896	25,432	50,677	78,338	143,092	212,113	355,205	(NA)	95	83
1939.....	(NA)	20	(NA)	(NA)	(NA)	6,998	(NA)	10,486	23,450	27,903	51,353	(NA)	(NA)	(NA)
1937.....	(NA)	13	(NA)	10,989	19,336	9,000	(NA)	14,845	32,857	39,266	72,123	(NA)	(NA)	(NA)
1935.....	(NA)	14	(NA)	4,734	5,925	3,790	(NA)	3,972	7,890	9,493	17,383	(NA)	(NA)	(NA)
1933.....	(NA)	13	(NA)	3,200	3,292	2,374	(NA)	1,863	2,661	4,266	6,927	(NA)	(NA)	(NA)

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3741.—LOCOMOTIVES AND PARTS—Continued														
1931.....	(NA)	16	(NA)	(NA)	(NA)	5,443	(NA)	5,590	7,248	14,871	22,119	(NA)	(NA)	(NA)
1929.....	(NA)	16	(NA)	12,846	23,514	11,045	(NA)	17,994	31,050	52,808	83,858	(NA)	(NA)	(NA)
1927.....	(NA)	17	(NA)	14,611	22,632	12,961	(NA)	17,648	31,031	45,688	76,719	(NA)	(NA)	(NA)
1925.....	(NA)	18	(NA)	14,673	23,456	12,809	(NA)	18,219	23,672	41,717	65,389	(NA)	(NA)	(NA)
1921.....	(NA)	22	(NA)	18,327	24,576	16,583	(NA)	20,473	46,611	55,412	102,023	(NA)	(NA)	(NA)
1919.....	(NA)	17	(NA)	28,741	43,577	26,715	(NA)	38,799	83,894	72,376	156,270	(NA)	(NA)	(NA)
1914.....	(NA)	19	(NA)	19,047	13,862	17,391	(NA)	11,085	19,828	23,546	43,374	(NA)	(NA)	(NA)
1909.....	(NA)	16	(NA)	16,938	11,211	14,909	(NA)	8,914	16,522	15,060	31,582	(NA)	(NA)	(NA)
1904.....	(NA)	15	(NA)	25,970	17,474	24,806	(NA)	15,798	31,849	27,703	59,552	(NA)	(NA)	(NA)
1899.....	(NA)	28	(NA)	(NA)	(NA)	19,039	(NA)	10,900	15,035	20,174	35,209	(NA)	(NA)	(NA)
INDUSTRY 3742.—RAILROAD AND STREET CARS														
1963.....	68	78	58	30,742	201,999	24,254	47,246	150,135	355,230	591,023	927,184	10,877	91	93
1962 <sup>3</sup> .....	(NA)	(NA)	(NA)	27,418	179,590	20,892	40,479	128,137	276,976	418,357	665,708	11,902	(NA)	(NA)
1961 <sup>3</sup> .....	(NA)	(NA)	(NA)	22,625	144,812	16,698	31,157	96,680	184,217	335,371	538,920	8,542	(NA)	(NA)
1960 <sup>3</sup> .....	(NA)	(NA)	(NA)	28,728	170,659	23,077	42,375	124,787	275,241	461,496	723,014	8,513	(NA)	(NA)
1959 <sup>3</sup> .....	(NA)	(NA)	(NA)	23,418	139,246	17,926	33,623	96,909	246,037	311,119	513,397	9,339	(NA)	(NA)
1958.....	56	67	44	24,309	133,302	17,872	32,565	91,089	167,576	310,796	562,190	8,635	87	90
1957 <sup>3</sup> .....	(NA)	(NA)	(NA)	35,950	198,577	29,498	57,767	151,982	362,233	593,396	939,846	11,968	88	91
1956 <sup>3</sup> .....	(NA)	(NA)	(NA)	31,837	164,428	25,963	51,250	125,232	288,106	451,956	725,138	18,316	(NA)	(NA)
1955 <sup>3</sup> .....	(NA)	(NA)	(NA)	31,420	149,431	25,171	49,341	113,497	247,929	355,936	568,975	16,124	(NA)	(NA)
1954.....	47	57	40	30,683	139,261	23,828	44,969	102,457	164,044	282,978	499,294	19,074	83	86
1953 <sup>3</sup> .....	(NA)	(NA)	(NA)	45,642	206,751	37,742	75,706	163,788	324,742	509,905	834,647	(NA)	(NA)	(NA)
1952 <sup>3</sup> .....	(NA)	(NA)	(NA)	43,354	181,225	35,637	69,472	140,570	265,695	443,499	709,194	(NA)	(NA)	(NA)
1951 <sup>3</sup> .....	(NA)	(NA)	(NA)	47,702	186,437	38,800	76,320	143,919	292,547	535,911	828,458	(NA)	(NA)	(NA)
1950 <sup>3</sup> .....	(NA)	(NA)	(NA)	39,503	138,520	31,309	60,123	101,575	204,078	357,564	561,642	(NA)	(NA)	(NA)
1949 <sup>3</sup> .....	(NA)	(NA)	(NA)	52,457	179,843	42,440	82,745	136,483	267,917	505,266	773,183	(NA)	(NA)	(NA)
1947.....	68	87	(NA)	60,851	186,107	50,292	101,184	146,848	273,130	453,037	726,167	(NA)	91	91
1939.....	(NA)	48	(NA)	(NA)	(NA)	17,711	(NA)	23,827	58,801	85,538	144,339	(NA)	(NA)	(NA)
INDUSTRY 3751.—MOTORCYCLES, BICYCLES, AND PARTS														
1963.....	85	88	33	9,662	48,425	7,912	15,152	34,398	82,245	112,157	192,851	3,152	83	93
1962 <sup>3</sup> .....	(NA)	(NA)	(NA)	9,028	42,944	7,314	13,974	30,072	74,162	102,861	172,600	3,321	(NA)	(NA)
1961 <sup>3</sup> .....	(NA)	(NA)	(NA)	8,232	38,249	6,630	12,774	26,920	59,166	93,640	153,065	2,580	(NA)	(NA)
1960 <sup>3</sup> .....	(NA)	(NA)	(NA)	8,341	37,460	6,749	12,555	26,704	61,226	84,616	143,122	3,102	(NA)	(NA)
1959 <sup>3</sup> .....	(NA)	(NA)	(NA)	8,664	38,687	7,108	13,820	28,551	66,952	86,514	149,734	3,267	(NA)	(NA)
1958.....	49	51	29	7,578	33,020	6,179	12,213	24,115	52,125	69,106	121,527	2,549	84	93
1957 <sup>3</sup> .....	(NA)	(NA)	(NA)	8,419	35,205	6,972	13,374	27,024	53,819	73,590	127,409	(S)	(NA)	(NA)
1956 <sup>3</sup> .....	(NA)	(NA)	(NA)	7,584	31,580	6,337	12,240	24,843	49,381	70,874	120,255	2,671	(NA)	(NA)
1955 <sup>3</sup> .....	(NA)	(NA)	(NA)	8,088	32,443	6,589	12,804	25,646	47,962	72,005	117,965	1,747	(NA)	(NA)
1954.....	44	46	29	7,061	28,060	5,979	11,121	21,639	40,177	57,983	100,477	1,476	86	92
1953 <sup>3</sup> .....	(NA)	(NA)	(NA)	9,340	36,808	8,068	15,686	29,717	52,376	83,429	135,805	1,829	(NA)	(NA)
1952 <sup>3</sup> .....	(NA)	(NA)	(NA)	10,178	43,391	8,720	17,800	35,188	65,405	71,311	136,716	2,190	(NA)	(NA)
1951 <sup>3</sup> .....	(NA)	(NA)	(NA)	9,448	37,185	8,034	16,231	29,052	54,009	68,506	122,515	3,122	(NA)	(NA)
1950 <sup>3</sup> .....	(NA)	(NA)	(NA)	10,895	35,547	8,565	17,218	28,269	52,098	64,696	116,794	2,066	(NA)	(NA)
1949 <sup>3</sup> .....	(NA)	(NA)	(NA)	9,531	31,269	7,986	14,880	23,176	47,308	56,390	103,698	1,526	(NA)	(NA)
1947.....	75	76	40	15,615	45,661	13,659	28,245	37,732	72,838	90,832	163,670	4,600	87	89
1939.....	(NA)	36	(NA)	8,302	11,863	6,973	(NA)	8,974	19,011	24,041	43,052	(NA)	(NA)	(NA)
1937.....	(NA)	29	(NA)	7,816	10,076	6,938	(NA)	8,207	16,251	19,793	36,044	(NA)	(NA)	(NA)
1935.....	(NA)	23	(NA)	5,773	6,562	5,093	(NA)	5,214	10,273	12,813	23,086	(NA)	(NA)	(NA)
1933.....	(NA)	19	(NA)	3,433	3,204	3,038	(NA)	2,639	5,893	6,162	12,055	(NA)	(NA)	(NA)
1931.....	(NA)	19	(NA)	(NA)	(NA)	3,294	(NA)	3,563	8,177	5,520	13,697	(NA)	(NA)	(NA)
1929.....	(NA)	21	(NA)	5,114	8,019	4,392	(NA)	6,264	12,614	11,281	23,895	(NA)	(NA)	(NA)
1927.....	(NA)	29	(NA)	4,594	6,984	3,897	(NA)	5,442	11,280	10,174	21,454	(NA)	(NA)	(NA)
1925.....	(NA)	36	(NA)	4,962	7,317	4,193	(NA)	5,662	12,081	12,177	24,258	(NA)	(NA)	(NA)
1923.....	(NA)	39	(NA)	7,531	10,236	6,576	(NA)	8,010	14,256	18,003	32,259	(NA)	(NA)	(NA)
1921.....	(NA)	46	(NA)	5,213	6,921	4,308	(NA)	4,981	12,775	10,323	23,098	(NA)	(NA)	(NA)
1919.....	(NA)	51	(NA)	12,184	14,964	10,886	(NA)	12,763	27,120	25,986	53,106	(NA)	(NA)	(NA)
1914.....	(NA)	78	(NA)	7,706	5,913	6,680	(NA)	4,739	11,306	10,928	22,234	(NA)	(NA)	(NA)
1909.....	(NA)	95	(NA)	4,939	3,491	4,437	(NA)	2,908	5,616	5,083	10,699	(NA)	(NA)	(NA)
1904.....	(NA)	101	(NA)	3,680	2,322	3,319	(NA)	1,971	2,525	2,628	5,513	(NA)	(NA)	(NA)
1899.....	(NA)	312	(NA)	19,559	9,943	17,525	(NA)	8,190	15,124	16,792	31,916	(NA)	(NA)	(NA)
INDUSTRY 3791.—TRAILER COACHES														
1963.....	348	413	252	25,669	125,002	21,901	43,390	94,078	232,460	482,751	713,119	9,584	98	99
1962 <sup>3</sup> .....	(NA)	(NA)	(NA)	21,047	97,698	17,949	31,323	73,889	153,181	356,828	507,583	(2,801)	(NA)	(NA)
1961 <sup>3</sup> .....	(NA)	(NA)	(NA)	20,703	88,705	17,457	29,814	64,807	135,111	328,890	464,133	(3,707)	(NA)	(NA)
1960 <sup>3</sup> .....	(NA)	(NA)	(NA)	22,318	93,966	18,616	34,257	68,173	159,325	364,991	523,765	(3,785)	(NA)	(NA)
1959 <sup>3</sup> .....	(NA)	(NA)	(NA)	21,435	95,383	18,101	34,940	69,384	159,453	386,241	538,654	7,976	(NA)	(NA)
1958 (new SIC) <sup>5</sup>	363	386	209	18,717	77,129	16,004	30,613	58,969	127,683	332,071	461,053	7,726	99	99
1958 (old SIC) <sup>5</sup>	(NA)	505	236	20,734	85,585	17,635	33,562	64,838	145,587	359,830	506,600	8,011	(NA)	(NA)
1957 <sup>3</sup> .....	(NA)	(NA)	(NA)	19,362	81,994	16,531	31,438	61,938	148,864	330,190	471,116	(S)	97	99
1956 <sup>3</sup> .....	(NA)	(NA)	(NA)	18,087	71,904	15,625	27,826	55,662	124,198	303,205	420,073	(S)	(NA)	(NA)
1955 <sup>3</sup> .....	(NA)	(NA)	(NA)	15,036	59,725	12,983	25,128	45,872	97,759	248,658	342,300	(S)	(NA)	(NA)
1954 <sup>3</sup> .....	267	275	125	11,131	43,874	9,491	18,592	33,031	69,175	162,051	236,397	2,404	99	98

See footnotes at end of table.

TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
	INDUSTRY 3799.—TRANSPORTATION EQUIPMENT, N.E.C.													
1963.....	507	522	108	8,032	37,547	6,652	13,183	27,788	68,823	99,379	167,375	3,710	89	75
1962 <sup>3</sup> .....	(NA)	(NA)	(NA)	5,796	28,117	4,743	9,163	18,535	45,193	78,300	122,959	(926)	(NA)	(NA)
1961 <sup>3</sup> .....	(NA)	(NA)	(NA)	5,850	27,391	4,595	9,495	17,541	40,636	70,792	111,148	1,062	(NA)	(NA)
1960 <sup>3</sup> .....	(NA)	(NA)	(NA)	5,958	28,303	4,908	9,619	18,890	43,025	73,768	115,852	2,293	(NA)	(NA)
1959 <sup>3</sup> .....	(NA)	(NA)	(NA)	5,488	24,859	4,330	8,869	17,385	40,721	73,951	113,390	(2,316)	(NA)	(NA)
1958 (new SIC) <sup>5</sup>	253	256	69	4,761	20,448	3,795	7,360	14,173	38,215	55,095	92,811	2,430	86	73
1958 (old SIC) <sup>5</sup>	(NA)	133	40	2,530	10,802	1,997	4,072	7,505	17,672	26,660	44,066	1,305	(NA)	(NA)
1957 <sup>3</sup> .....	(NA)	(NA)	(NA)	1,655	7,123	1,215	2,693	4,439	14,225	(NA)	(NA)	5,013	(NA)	(NA)
1956 <sup>3</sup> .....	(NA)	(NA)	(NA)	1,626	6,685	1,310	2,681	4,689	11,322	13,826	24,951	(NA)	(NA)	(NA)
1955 <sup>3</sup> .....	(NA)	(NA)	(NA)	1,651	6,269	1,347	2,935	4,584	12,703	15,163	26,978	(NA)	(NA)	(NA)
1954.....	108	108	21	1,636	5,637	1,359	2,786	4,135	10,042	11,724	21,870	561	92	44
1952 <sup>3</sup> .....	(NA)	(NA)	(NA)	1,950	7,261	1,683	3,680	5,623	13,560	17,777	31,337	920	(NA)	(NA)
1951 <sup>3</sup> .....	(NA)	(NA)	(NA)	2,516	8,709	2,155	4,702	6,733	15,366	20,533	35,899	1,061	(NA)	(NA)
1950 <sup>3</sup> .....	(NA)	(NA)	(NA)	2,774	8,866	2,252	4,848	6,433	14,439	19,382	33,821	986	(NA)	(NA)
1949 <sup>3</sup> .....	(NA)	(NA)	(NA)	3,152	9,035	2,519	4,986	6,122	13,397	17,861	31,258	954	(NA)	(NA)
1947.....	(NA)	168	(NA)	4,584	11,658	3,890	(NA)	8,794	20,663	26,180	46,843	1,227	75	65
1939.....	(NA)	41	(NA)	1,543	1,725	1,252	(NA)	1,150	3,145	3,124	6,269	(NA)	(NA)	(NA)
1937.....	(NA)	43	(NA)	2,122	2,321	1,823	(NA)	1,723	4,505	4,633	9,138	(NA)	(NA)	(NA)
1935.....	(NA)	45	(NA)	1,858	1,767	1,592	(NA)	1,284	3,162	3,683	6,845	(NA)	(NA)	(NA)
1933.....	(NA)	53	(NA)	1,610	1,196	1,409	(NA)	922	2,403	2,350	4,753	(NA)	(NA)	(NA)
1931.....	(NA)	70	(NA)	(NA)	(NA)	1,321	(NA)	1,199	2,666	2,494	5,160	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: **All employees:** For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). **Production workers:** For 1947 and prior years figures represent an average of 12 monthly figures. **Value added:** Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. **Cost of materials:** Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. **Value of shipments:** Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>For the period 1954-1963 the adjusted value added figure for the ship building and repairing industry has not been adjusted for the change in inventory between the beginning and end of the year, since the figures reported by establishments in this industry are value of work rather than value of shipments. It does include the value added by resales. For prior years, this figure is unadjusted value added.

<sup>2</sup>Represents value of work done rather than value of shipments.

<sup>3</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>4</sup>For 1939 and prior years separate industry figures for "Ship building and repairing" and "Boat building and repairing" are not available. However, for the period 1899-1939 combined data for the two industries are shown.

<sup>5</sup>A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so that data for prior years are not strictly comparable.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3731.—SHIP BUILDING AND REPAIRING													
Total.....	334	200	114,649	782,299	96,527	193,512	610,250	<sup>2</sup> 1,009,690	670,075	<sup>3</sup> 1,679,765	24,477	119,147	<sup>2</sup> 913,687
New England.....	33	15	23,271	183,647	16,651	36,866	109,599	229,588	134,632	364,220	6,554	21,288	198,651
Middle Atlantic....	77	44	16,455	113,831	14,345	27,904	94,053	144,817	85,057	229,874	2,396	22,921	171,980
New York.....	45	23	3,718	25,036	3,123	5,963	20,246	35,997	21,478	57,475	241	6,535	49,908
New Jersey.....	23	14	7,944	56,735	7,218	13,874	49,118	73,212	31,735	104,947	1,545	12,060	91,396
Pennsylvania.....	9	7	4,793	32,060	4,004	8,067	24,689	35,608	31,844	67,452	610	4,326	30,676
East North Central.	27	15	3,806	22,320	3,275	6,499	18,087	31,538	30,339	61,877	824	( <sup>4</sup> )	( <sup>4</sup> )
Wisconsin.....	7	6	1,585	8,836	1,369	2,747	7,079	14,001	10,534	24,535	390	2,087	16,319
West North Central.	6	3	145	753	124	229	585	1,428	518	1,946	21	( <sup>4</sup> )	( <sup>4</sup> )
South Atlantic.....	64	44	34,660	227,603	31,035	60,846	197,323	289,731	145,181	434,912	5,538	30,876	221,960
North Carolina...	5	3	236	1,177	208	494	1,007	1,819	1,679	3,498	34	( <sup>4</sup> )	( <sup>4</sup> )
Florida.....	28	15	3,496	18,649	3,129	6,151	16,031	25,343	17,243	42,586	616	3,907	21,797
East South Central.	16	12	8,764	53,389	7,456	14,091	40,832	53,567	57,809	111,376	2,747	13,587	89,350
West South Central.	50	32	11,977	75,415	10,337	21,607	62,532	106,515	90,819	197,334	3,291	9,924	74,767
Louisiana.....	26	17	7,189	45,902	6,317	13,935	39,401	64,831	58,133	122,964	1,952	5,835	41,225
Pacific.....	61	35	15,571	105,341	13,304	25,470	87,239	152,506	125,720	278,226	3,106	13,351	106,272
Oregon.....	5	3	1,977	11,829	1,565	2,836	8,951	19,716	15,934	35,650	337	( <sup>4</sup> )	( <sup>4</sup> )
California.....	37	24	9,254	63,787	7,875	14,998	52,138	92,636	72,201	164,837	688	8,254	63,703
INDUSTRY 3732.—BOAT BUILDING AND REPAIRING													
Total.....	1,626	268	24,861	116,140	20,867	42,011	91,443	183,059	183,207	360,208	13,472	25,295	157,309
New England.....	196	33	2,497	11,639	2,121	4,437	9,164	19,447	16,437	35,679	1,424	1,890	10,844
Maine.....	56	8	494	1,707	406	843	1,418	2,649	2,396	5,015	225	557	2,276
Rhode Island.....	20	4	434	1,877	362	731	1,318	3,695	3,608	7,350	200	( <sup>4</sup> )	( <sup>4</sup> )
Connecticut.....	30	5	290	1,541	242	505	1,099	2,844	1,928	4,751	471	294	1,832
Middle Atlantic....	224	44	3,790	18,144	3,143	6,302	14,338	28,758	25,314	52,656	1,927	3,490	17,395
New York.....	109	23	1,759	8,317	1,455	2,890	6,572	12,915	9,633	21,843	927	1,668	5,718
New Jersey.....	97	17	1,247	6,119	1,075	2,141	5,081	9,563	7,705	17,112	647	1,108	6,852
Pennsylvania.....	18	4	784	3,708	613	1,271	2,685	6,280	7,976	13,701	353	714	4,825
East North Central.	169	40	4,636	23,126	3,847	7,761	17,840	35,420	40,702	74,756	1,888	( <sup>4</sup> )	( <sup>4</sup> )
Ohio.....	24	7	504	2,685	431	832	2,109	3,975	3,648	7,764	90	825	5,933
Michigan.....	53	12	1,894	9,079	1,662	3,220	7,656	14,369	16,452	30,649	380	2,012	11,781
Wisconsin.....	41	9	824	3,481	688	1,398	2,622	5,450	5,252	10,778	123	847	5,380
West North Central.	64	12	1,029	4,145	830	1,732	3,117	7,351	8,343	15,159	413	( <sup>4</sup> )	( <sup>4</sup> )
Minnesota.....	33	8	750	3,170	606	1,265	2,360	4,978	5,904	10,520	278	1,043	8,126
South Atlantic.....	385	57	6,130	27,740	5,229	10,503	22,085	43,490	44,976	87,135	2,644	5,495	31,660
Maryland.....	76	12	2,097	10,109	1,887	3,537	8,927	16,530	17,560	33,697	558	( <sup>4</sup> )	( <sup>4</sup> )
Virginia.....	49	5	548	2,206	475	907	1,757	3,854	3,384	7,098	236	( <sup>4</sup> )	( <sup>4</sup> )
North Carolina...	36	6	563	2,105	522	1,100	1,748	3,516	5,160	8,623	357	( <sup>4</sup> )	( <sup>4</sup> )
South Carolina...	15	2	122	414	107	206	311	579	952	1,523	68	( <sup>4</sup> )	( <sup>4</sup> )
Florida.....	183	29	2,517	11,983	1,993	4,272	8,615	17,664	16,158	32,957	1,372	2,442	12,163
East South Central.	56	11	1,047	3,894	917	1,612	3,263	7,233	7,767	15,250	2,430	632	4,679
West South Central.	174	31	2,609	10,880	2,119	4,494	7,987	14,533	17,065	31,384	1,269	3,185	17,009
Arkansas.....	13	6	472	2,196	376	765	1,483	1,971	2,528	4,793	138	( <sup>4</sup> )	( <sup>4</sup> )
Louisiana.....	65	10	849	3,577	732	1,784	2,926	6,334	5,396	10,975	529	630	3,606
Mountain.....	22	1	111	491	93	196	384	832	914	1,732	61	103	777
Pacific.....	336	39	3,012	16,081	2,568	4,974	13,265	25,995	21,689	46,457	1,416	3,968	33,314
Washington.....	103	13	891	4,436	758	1,420	3,781	7,113	6,247	13,002	291	( <sup>4</sup> )	( <sup>4</sup> )
Oregon.....	34	1	138	734	125	239	666	1,172	732	1,882	55	( <sup>4</sup> )	( <sup>4</sup> )
California.....	187	23	1,874	10,247	1,596	3,143	8,284	16,722	14,011	29,893	1,021	2,736	24,925
INDUSTRY 3741.—LOCOMOTIVES AND PARTS													
Total.....	24	12	14,337	99,696	10,648	20,803	67,405	186,241	249,785	437,872	7,195	15,282	152,086
Northeast and North Central.....	24	12	14,337	99,696	10,648	20,803	67,405	186,241	249,785	437,872	7,195	15,269	151,756

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(number)	(\$1,000)
INDUSTRY 3742.—RAILROAD AND STREET CARS													
Total.....	78	58	30,742	201,999	24,254	47,246	150,135	355,230	591,023	927,184	10,877	24,309	167,576
Northeast and North Central.....	66	48	25,464	167,442	19,997	38,716	123,919	284,488	455,731	723,705	8,647	21,228	154,852
Pennsylvania.....	15	11	8,507	55,453	6,686	12,062	41,124	97,631	140,110	223,550	3,202	8,898	64,904
Ohio.....	9	8	2,953	20,895	2,422	4,911	16,683	31,596	46,047	79,963	739	2,530	23,561
South and West.....	12	10	5,278	34,557	4,257	8,530	26,216	70,742	135,292	203,479	2,230	3,081	12,724
INDUSTRY 3751.—MOTORCYCLES, BICYCLES, AND PARTS													
Total.....	88	33	9,662	48,425	7,912	15,152	34,398	82,245	112,157	192,851	3,152	7,578	52,125
Northeast.....	18	8	1,418	6,267	1,189	2,205	4,708	11,725	15,814	27,459	140	1,462	9,097
North Central.....	25	12	4,030	22,629	3,059	5,992	15,741	35,576	47,542	82,428	1,378	3,650	27,205
Ohio.....	9	3	489	2,407	435	841	2,022	6,968	11,072	16,895	50	592	4,906
Indiana.....	3	3	389	1,609	314	585	1,111	2,623	4,045	6,829	16	(4)	(4)
Michigan.....	5	1	116	601	68	117	497	536	1,133	1,683	40	(4)	(4)
South and West.....	45	13	4,214	19,529	3,664	6,955	13,949	34,944	48,801	82,964	1,634	2,467	15,823
California.....	24	5	513	2,663	402	776	1,770	4,366	7,874	12,472	99	(4)	(4)
INDUSTRY 3791.—TRAILER COACHES													
Total.....	413	252	25,669	125,002	21,901	43,390	94,078	232,460	482,751	713,119	9,584	18,717	127,683
New England.....	5	1	30	68	27	51	64	130	238	355	5	5	14
Middle Atlantic....	24	17	1,557	7,105	1,343	2,555	5,379	13,789	26,785	39,989	988	348	2,322
East North Central.	130	79	9,356	51,972	7,738	15,581	37,277	93,433	199,456	292,750	3,805	8,620	64,847
Ohio.....	8	5	661	3,277	548	1,081	2,292	6,674	13,428	20,051	223	371	2,762
Indiana.....	63	47	4,245	23,911	3,496	6,740	16,908	44,792	101,269	145,855	1,898	3,441	27,326
Michigan.....	46	20	3,593	21,175	2,940	6,142	15,309	37,038	72,096	109,609	1,572	(4)	(4)
West North Central.	33	21	2,327	10,647	1,991	4,030	8,518	23,593	44,277	67,271	638	1,319	12,065
Iowa.....	4	3	261	1,130	218	431	843	1,680	4,600	6,169	15	(4)	(4)
Missouri.....	8	3	165	622	145	271	471	1,074	2,428	3,434	71	(4)	(4)
Nebraska.....	5	4	555	2,267	505	963	1,949	4,927	10,698	15,669	(D)	(4)	(4)
Kansas.....	10	8	1,108	5,660	923	1,938	4,509	13,485	22,822	35,805	358	(4)	(4)
South Atlantic.....	45	31	3,298	13,952	2,888	5,789	10,726	31,562	64,737	95,612	1,221	(4)	(4)
North Carolina....	6	4	371	1,100	306	529	812	2,284	5,171	7,392	54	(4)	(4)
Georgia.....	15	11	1,492	6,582	1,325	2,767	5,031	16,676	31,736	47,942	649	(4)	(4)
Florida.....	19	12	924	4,116	798	1,578	3,208	8,386	17,565	25,843	362	345	2,242
East South Central.	7	6	796	2,786	691	1,363	2,138	4,365	13,861	18,163	246	(4)	(4)
West South Central.	42	23	1,737	6,873	1,500	3,019	5,201	13,582	27,962	41,799	337	(4)	(4)
Arkansas.....	6	3	174	736	156	300	610	2,050	2,369	4,643	23	(4)	(4)
Oklahoma.....	8	6	454	1,802	398	807	1,254	3,828	7,728	11,610	108	(4)	(4)
Texas.....	28	14	1,109	4,335	946	1,912	3,337	7,704	17,865	25,546	206	1,712	7,765
Mountain.....	37	13	976	4,561	824	1,657	3,412	7,301	15,516	22,762	504	603	3,177
Idaho.....	6	5	405	1,928	347	722	1,397	3,896	7,510	11,305	267	166	608
Colorado.....	13	2	179	841	146	274	664	959	3,048	4,142	154	(4)	(4)
Arizona.....	9	3	200	893	171	341	703	1,173	2,387	3,464	55	(4)	(4)
Pacific.....	90	61	5,592	27,038	4,899	9,345	21,363	44,705	89,919	134,418	1,840	3,667	24,206
Washington.....	9	3	155	642	137	230	510	956	1,496	2,434	38	(4)	(4)
Oregon.....	8	5	322	1,555	278	503	1,216	2,401	4,936	7,300	76	(4)	(4)
California.....	73	53	5,115	24,841	4,484	8,612	19,637	41,348	83,487	124,684	1,726	(4)	(4)
INDUSTRY 3799.—TRANSPORTATION EQUIPMENT, N.E.C.													
Total.....	522	108	8,032	37,547	6,652	13,183	27,788	68,823	99,379	167,375	3,710	4,761	38,215
Northeast.....	51	10	953	4,916	772	1,505	3,491	10,404	12,195	22,671	511	620	7,152
Pennsylvania.....	22	5	475	2,481	393	769	1,896	6,576	5,077	11,578	265	450	3,435
East North Central.	123	33	2,074	10,427	1,715	3,559	7,757	17,798	29,033	46,687	947	1,466	11,868
Ohio.....	32	10	761	4,016	619	1,314	2,886	6,227	8,423	14,559	119	(4)	(4)
Indiana.....	34	10	634	3,731	517	1,191	2,761	7,050	13,198	20,210	495	490	3,737
Illinois.....	16	3	161	606	131	234	442	1,186	1,653	2,871	79	292	2,148
Michigan.....	29	4	227	1,014	203	363	877	1,707	2,333	4,028	146	241	1,811
Wisconsin.....	12	6	291	1,060	245	457	791	1,628	3,426	5,019	108	(4)	(4)

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963										1958		
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(number)	(\$1,000)
	INDUSTRY 3799.—TRANSPORTATION EQUIPMENT, N.E.C.—Continued												
West North Central.	78	16	1,533	6,667	1,280	2,552	4,873	12,801	12,410	24,652	486	857	6,364
Iowa.....	21	8	681	3,170	580	1,154	2,290	5,296	5,030	10,294	189	(4)	(4)
Missouri.....	13	1	226	949	189	389	775	2,529	1,973	4,357	49	(4)	(4)
Nebraska.....	7	1	168	708	140	300	541	1,397	1,535	2,756	(D)	(4)	(4)
Kansas.....	20	5	339	1,421	272	510	938	2,771	2,971	5,615	124	(4)	(4)
South Atlantic.....	45	7	563	2,517	453	880	1,747	4,070	6,133	10,208	207	} 890	5,540
North Carolina...	7	2	130	332	110	205	204	598	1,239	1,827	63		
Florida.....	26	3	243	1,416	182	358	953	2,231	2,727	5,054	101		
East South Central.	12	4	227	971	191	383	743	1,467	2,614	3,970	112	}	(4)
West South Central.	71	11	778	2,969	670	1,282	2,323	6,152	11,368	17,319	482		
Oklahoma.....	15	1	123	412	103	204	330	760	1,477	2,206	49	(4)	(4)
West.....	142	27	1,904	9,080	1,571	3,022	6,854	16,131	25,626	41,868	965	928	7,291
Idaho.....	6	1	118	328	97	180	250	693	999	1,674	74	(4)	(4)
California.....	85	18	1,196	6,231	984	1,901	4,676	10,456	19,386	30,050	571	(4)	(4)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3731, Ship Building and Repairing: New England—Maine, 8 (2,626); Vermont, 1 (1-19); Massachusetts, 12 (4,613); Rhode Island, 2 (20-99); Connecticut, 10 (15,932); East North Central—Ohio, 9 (707); Indiana, 3 (611); Illinois, 3 (166); Michigan, 5 (737); West North Central—Minnesota, 2 (1-19); Iowa, 1 (20-99); Missouri, 3 (102); South Atlantic—Delaware, 2 (100-249); Maryland, 9 (8,027); Virginia, 13 (20,847); West Virginia, 1 (500-999); South Carolina, 5 (402); Georgia, 1 (500-999); East South Central—Kentucky, 1 (200-249); Tennessee, 1 (500-999); Alabama, 7 (2,500-4,999); Mississippi, 7 (5,084); West South Central—Oklahoma, 1 (1-19); Texas, 23 (2,500-4,999); Pacific—Washington, 17 (2,500-4,999); Alaska, 1 (1-19); Hawaii, 1 (1-19).

SIC 3732, Boat Building and Repairing: New England—New Hampshire, 8 (20-99); Vermont, 1 (1-19); Massachusetts, 81 (1,181); East North Central—Indiana, 26 (974); Illinois, 25 (440); West North Central—Iowa, 3 (1-19); Missouri, 16 (207); South Dakota, 2 (1-19); Nebraska, 1 (1-19); Kansas, 9 (20-99); South Atlantic—Delaware, 5 (1-19); District of Columbia, 1 (1-19); Georgia, 20 (250-499); East South Central—Kentucky, 6 (20-99); Tennessee, 20 (500-999); Alabama, 17 (20-99); Mississippi, 13 (100-249); West South Central—Oklahoma, 11 (20-99); Texas, 85 (1,000-2,499); Mountain—Montana, 4 (20-99); Idaho, 2 (1-19); Colorado, 2 (1-19); New Mexico, 1 (1-19); Arizona, 3 (20-99); Utah, 9 (20-99); Nevada, 1 (1-19); Pacific—Alaska, 8 (20-99); Hawaii, 4 (20-99).

SIC 3741, Locomotives and Parts: Middle Atlantic—New York, 1 (1,000-2,499); New Jersey, 1 (1-19); Pennsylvania, 6 (4,555); East North Central—Ohio, 3 (260); Indiana, 1 (1-19); Illinois, 7 (7,671); Michigan, 1 (1-19); Wisconsin, 2 (100-249); West North Central—Minnesota, 1 (20-99); Nebraska, 1 (1-19).

SIC 3742, Railroad and Street Cars: Middle Atlantic—New York, 5 (1,660); New Jersey, 3 (538); East North Central—Indiana, 5 (2,500-4,999); Illinois, 18 (2,747); Michigan, 3 (1,000-2,499); Wisconsin, 2 (20-99); West North Central—Minnesota, 1 (20-99); Iowa, 1 (20-99); Missouri, 2 (2,500-4,999); Kansas, 2 (250-499); South Atlantic—West Virginia, 1 (500-999); Georgia, 2 (20-99); East South Central—Kentucky, 1 (100-249); Alabama, 2 (1,000-2,499); West South Central—Texas, 2 (100-249); Pacific—Washington, 1 (1,000-2,499); California, 3 (248).

SIC 3751, Motorcycles, Bicycles, and Parts: New England—Massachusetts, 2 (250-499); Connecticut, 1 (20-99); Middle Atlantic—New York, 8 (873); New Jersey, 4 (20-99); Pennsylvania, 3 (1-19); East North Central—Illinois, 4 (500-999); Wisconsin, 3 (1,000-2,499); West North Central—Nebraska, 1 (500-999); South Atlantic—Georgia, 2 (20-99); Florida, 2 (1-19); East South Central—Kentucky, 2 (250-499); Tennessee, 2 (1,000-2,499); West South Central—Arkansas, 3 (500-999); Louisiana, 1 (20-99); Oklahoma, 2 (1-19); Texas, 1 (1-19); Mountain—Colorado, 1 (1-19); Utah, 4 (20-99); Pacific—Oregon, 1 (1-19).

SIC 3791, Trailer Coaches: New England—Maine, 2 (20-99); New Hampshire, 1 (1-19); Massachusetts, 1 (1-19); Connecticut, 1 (1-19); Middle Atlantic—New Jersey, 1 (20-99); Pennsylvania, 23 (1,000-2,499); East North Central—Illinois, 3 (1-19); Wisconsin, 10 (851); West North Central—Minnesota, 4 (100-249); South Dakota, 2 (100-249); South Atlantic—Maryland, 2 (100-249); Virginia, 1 (100-249); South Carolina, 2 (100-249); East South Central—Kentucky, 1 (20-99); Tennessee, 3 (177); Alabama, 2 (250-499); Mississippi, 1 (200-249); Mountain—New Mexico, 1 (1-19); Utah, 8 (100-249).

SIC 3799, Transportation Equipment, N.E.C.: New England—Vermont, 2 (20-99); Massachusetts, 7 (20-99); Connecticut, 4 (20-99); Middle Atlantic—New York, 12 (250-499); New Jersey, 4 (20-99); West North Central—Minnesota, 12 (100-249); North Dakota, 4 (1-19); South Dakota, 1 (1-19); South Atlantic—Maryland, 1 (20-99); Virginia, 2 (20-99); South Carolina, 3 (1-19); Georgia, 6 (20-99); East South Central—Kentucky, 2 (20-99); Tennessee, 6 (20-99); Alabama, 2 (20-99); Mississippi, 2 (1-19); West South Central—Arkansas, 4 (20-99); Louisiana, 5 (20-99); Texas, 47 (498); Mountain—Montana, 2 (20-99); Wyoming, 1 (1-19); Colorado, 13 (20-99); New Mexico, 2 (1-19); Arizona, 7 (20-99); Utah, 5 (100-249); Pacific—Washington, 13 (20-99); Oregon, 7 (100-249); Alaska, 1 (1-19).

<sup>2</sup>See footnote 1, table 1.

<sup>3</sup>Represents value of work done rather than value of shipments.

<sup>4</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

TABLE 3. Detailed Statistics: 1963

Item	Ship building and repairing (SIC 3731)	Boat building and repairing (SIC 3732)	Locomotives and parts (SIC 3741)	Railroad and street cars (SIC 3742)	Motorcycles, bicycles, and parts (SIC 3751)	Trailer coaches (SIC 3791)	Transportation equipment, n.e.c. (SIC 3799)
Primary product specialization ratio <sup>1</sup> .....	.92	.97	.83	.91	.83	.98	.89
Coverage ratio <sup>2</sup> .....	.99	.95	.90	.93	.93	.99	.75
Establishments, total.....number..	334	1,626	24	78	88	413	522
With 1 to 19 employees.....do....	134	1,358	12	20	55	161	414
With 20 to 99 employees.....do....	96	222	5	22	17	164	92
With 100 employees or more.....do....	104	46	7	36	16	88	16
Proprietors and working partners.....do....	92	1,148	7	7	13	139	277
All employees (average for the year).....do....	114,649	24,861	14,337	30,742	9,662	25,669	8,032
Payroll (all employees), total for year.....\$1,000..	782,299	116,140	99,696	201,999	48,425	125,002	37,547
Production workers:							
Average for the year.....number..	96,527	20,867	10,648	24,254	7,912	21,901	6,652
March.....do....	99,853	21,360	10,790	24,222	7,549	19,917	6,240
May.....do....	99,054	23,246	10,694	22,388	8,149	21,812	7,167
August.....do....	95,127	19,219	10,752	24,839	8,431	22,914	6,610
November.....do....	92,089	19,831	10,348	25,554	7,525	22,965	6,620
Man-hours.....1,000..	193,512	42,011	20,803	47,246	15,152	43,390	13,183
January-March.....do....	49,404	10,895	5,321	10,737	3,429	9,358	2,982
April-June.....do....	50,230	11,852	5,317	11,355	4,073	11,135	3,573
July-September.....do....	48,841	9,823	4,751	12,123	4,013	11,561	3,381
October-December.....do....	46,090	10,347	5,414	13,043	3,660	11,398	3,450
Wages.....\$1,000..	610,250	91,443	67,405	150,135	34,398	94,078	27,788
Cost of materials, etc., total.....do....	670,075	183,207	249,785	591,023	112,157	482,751	99,379
Materials, parts, containers, and supplies consumed.....do....	612,467	167,519	233,289	575,511	102,722	471,898	94,750
Cost of resales.....do....	6,748	10,749	13,374	6,266	6,323	6,900	1,391
Fuels consumed.....do....	5,772	1,143	1,658	3,583	724	861	497
Electric energy:							
Purchased:							
Quantity.....million kw.-hrs..	990	88	117	279	75	51	35
Cost.....\$1,000..	11,317	1,667	1,246	3,547	877	1,173	676
Generated less sold.....million kw.-hrs..	(D)	(D)	(D)	(D)	-	(D)	(D)
Contract work.....\$1,000..	33,771	2,126	218	2,116	1,511	1,009	2,065
Value of shipments (including resales), total <sup>3</sup> .....do....	1,679,765	360,208	437,872	927,184	192,851	713,119	167,375
Value of resales.....do....	7,173	15,379	(D)	8,480	7,572	9,313	3,585
Value added by manufacture, adjusted <sup>4</sup> .....do....	1,009,690	183,059	186,241	355,230	82,245	232,460	68,823
Manufacturers' inventories:							
Beginning of year, total.....do....	387,297	72,496	86,112	155,297	34,852	59,003	24,664
Finished products.....do....	8,519	23,358	15,761	15,650	9,500	15,373	7,897
Work-in-process.....do....	334,020	16,965	65,405	95,192	15,926	6,128	6,616
Materials, supplies, fuel, etc.....do....	44,758	32,173	4,946	44,455	9,426	37,492	10,151
End of year, total.....do....	344,057	78,640	83,784	186,222	36,006	63,118	26,272
Finished products.....do....	7,641	26,004	13,744	16,575	11,398	16,943	8,416
Work-in-process.....do....	291,319	20,377	65,576	113,336	15,579	6,464	6,928
Materials, supplies, fuel, etc.....do....	45,097	32,259	4,464	56,311	9,029	39,711	10,928
Expenditures for plant and equipment, total.....do....	34,319	22,745	7,546	11,803	3,437	10,043	4,282
New, total.....do....	24,477	13,472	7,195	10,877	3,152	9,584	3,710
New structures and additions to plant.....do....	10,141	5,673	694	2,729	540	4,820	1,189
New machinery and equipment.....do....	14,336	7,799	6,501	8,148	2,612	4,764	2,521
Used plant and equipment.....do....	9,842	9,273	351	926	285	459	572
Selected operating ratios:							
Payroll/Total employment.....	6,823	4,672	6,954	6,571	5,012	4,870	4,675
Production workers/Total employment.....	.84	.84	.74	.79	.82	.85	.83
Man-hours/Production workers.....	2,005	2,013	1,954	1,948	1,915	1,981	1,982
Production worker wages/Man-hours.....	3.15	2.18	3.24	3.18	2.27	2.17	2.11
Cost of materials and payrolls/Total value of shipments....	.86	.83	.80	.86	.83	.85	.82
Cost of materials/Total value of shipments.....	.40	.51	.57	.64	.58	.68	.59
Adjusted value added/Total employment.....	8,427	7,363	12,990	11,555	8,512	9,053	8,569
Salaries and wages/Adjusted value added.....	.81	.63	.54	.57	.59	.54	.55

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

<sup>3</sup>Represents value of work done rather than value of shipments.

<sup>4</sup>See footnote 1, table 1.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3731.—SHIP BUILDING AND REPAIRING											
Establishments.....number..	334	58	32	44	57	39	41	21	22	12	8
All employees:											
Total.....do....	114,649	90	218	632	1,919	2,737	6,725	7,715	16,106	20,212	58,295
Payroll.....\$1,000..	782,299	687	1,149	3,601	11,093	16,397	38,585	47,373	98,866	132,944	431,604
Value added, adjusted.....do....	<sup>1</sup> 1,009,690	872	2,027	5,780	16,005	22,015	53,975	64,263	143,487	191,105	510,161
Value of shipments.....do....	<sup>2</sup> 1,679,765	1,560	3,068	8,786	24,746	36,768	101,511	112,781	244,860	335,717	809,968
Capital expenditures, new...do....	24,477	<u>502</u>	(D)	157	443	531	1,699	1,943	2,298	3,996	12,908
INDUSTRY 3732.—BOAT BUILDING AND REPAIRING											
Establishments.....number..	1,626	932	235	191	156	66	36	7	3	-	-
All employees:											
Total.....do....	24,861	1,503	1,549	2,643	4,698	4,495	5,469	4,504	(D)	-	-
Payroll.....\$1,000..	116,140	6,533	6,682	11,285	21,531	20,743	27,374	<u>21,992</u>	(D)	-	-
Value added, adjusted.....do....	183,059	10,248	10,219	18,301	34,020	33,120	44,308	<u>32,843</u>	(D)	-	-
Value of shipments.....do....	360,208	20,877	18,920	33,073	61,204	65,362	92,391	<u>68,381</u>	(D)	-	-
Capital expenditures, new...do....	13,472	<sup>3</sup> 1,664	1,045	1,357	1,972	4,068	2,128	<u>1,238</u>	(D)	-	-
INDUSTRY 3741.—LOCOMOTIVES AND PARTS											
Establishments.....number..	24	2	4	6	3	2	3	-	1	1	2
All employees:											
Total.....do....	14,337	35	(D)	86	<u>239</u>	(D)	<u>1,490</u>	-	(D)	<u>12,487</u>	(D)
Payroll.....\$1,000..	99,696	<u>188</u>	(D)	332	<u>1,455</u>	(D)	<u>9,926</u>	-	(D)	<u>87,795</u>	(D)
Value added, adjusted.....do....	186,241	<u>723</u>	(D)	884	<u>2,236</u>	(D)	<u>19,675</u>	-	(D)	<u>162,723</u>	(D)
Value of shipments.....do....	437,872	<u>1,390</u>	(D)	2,185	<u>3,481</u>	(D)	<u>56,834</u>	-	(D)	<u>373,982</u>	(D)
Capital expenditures, new...do....	7,195	<u>10</u>	(D)	10	<u>65</u>	(D)	<u>424</u>	-	(D)	<u>6,686</u>	(D)
INDUSTRY 3742.—RAILROAD AND STREET CARS											
Establishments.....number..	78	5	7	8	10	12	10	5	9	11	1
All employees:											
Total.....do....	30,742	13	48	111	304	786	1,428	1,810	6,672	<u>19,570</u>	(D)
Payroll.....\$1,000..	201,999	74	260	611	1,693	4,812	9,015	11,633	42,731	<u>131,170</u>	(D)
Value added, adjusted.....do....	355,230	102	360	1,287	3,835	11,289	15,590	26,500	77,891	<u>218,376</u>	(D)
Value of shipments.....do....	927,184	294	1,049	3,351	11,114	26,268	32,719	53,161	230,684	<u>568,544</u>	(D)
Capital expenditures, new...do....	10,877	10	49	70	128	484	721	1,228	2,279	<u>5,908</u>	(D)
INDUSTRY 3751.—MOTORCYCLES, BICYCLES, AND PARTS											
Establishments.....number..	88	37	8	10	8	9	7	4	3	2	-
All employees:											
Total.....do....	9,662	68	61	135	232	678	1,288	1,510	<u>5,690</u>	(D)	-
Payroll.....\$1,000..	48,425	250	260	676	992	3,378	5,211	7,179	<u>30,479</u>	(D)	-
Value added, adjusted.....do....	82,245	362	407	782	1,589	5,672	10,592	14,377	<u>48,464</u>	(D)	-
Value of shipments.....do....	192,851	1,033	1,066	2,627	4,258	11,498	27,869	33,762	<u>110,738</u>	(D)	-
Capital expenditures, new...do....	3,152	11	10	32	46	176	200	287	<u>2,390</u>	(D)	-
INDUSTRY 3791.—TRAILER COACHES											
Establishments.....number..	413	85	35	41	87	77	75	12	1	-	-
All employees:											
Total.....do....	25,669	119	240	537	2,981	5,348	11,997	4,447	(D)	-	-
Payroll.....\$1,000..	125,002	548	1,135	2,150	12,717	25,148	59,182	<u>24,122</u>	(D)	-	-
Value added, adjusted.....do....	232,460	905	1,436	2,737	20,269	46,603	112,726	<u>47,784</u>	(D)	-	-
Value of shipments.....do....	713,119	2,952	5,343	10,311	64,390	151,709	339,993	<u>138,421</u>	(D)	-	-
Capital expenditures, new...do....	9,584	99	145	419	1,116	2,137	3,879	<u>1,789</u>	(D)	-	-
INDUSTRY 3799.—TRANSPORTATION EQUIPMENT, N.E.C.											
Establishments.....number..	522	254	96	64	68	24	16	-	-	-	-
All employees:											
Total.....do....	8,032	458	635	921	2,187	1,556	2,275	-	-	-	-
Payroll.....\$1,000..	37,547	2,066	2,692	3,965	10,688	7,033	11,103	-	-	-	-
Value added, adjusted.....do....	68,823	4,005	4,515	7,199	19,276	12,202	21,626	-	-	-	-
Value of shipments.....do....	167,375	9,411	11,810	16,483	51,579	31,821	46,271	-	-	-	-
Capital expenditures, new...do....	3,710	399	400	344	1,066	740	761	-	-	-	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left<sup>1</sup>.

n.e.c. Not elsewhere classified.

<sup>1</sup>See footnote 1, table 1.<sup>2</sup>Represents value of work done rather than value of shipments.<sup>3</sup>Includes capital expenditures of approximately \$200-\$500 thousand for plants under construction but not in operation.

**TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		Col. B Col. B+C (percent)								Col. B Col. F (percent)
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(percent)	(\$1,000)	(\$1,000)	(\$1,000)	(percent)
		A	B	C	D	E	F	G	H	I
3731	Ship building and repairing.....1963..	<sup>1</sup> 1,679,765	1,507,891	117,950	53,924	92	<sup>1</sup> 1,518,015	1,507,891	10,124	99
	1958..	<sup>1</sup> 1,625,624	1,452,734	110,688	62,202	93	<sup>1</sup> 1,467,381	1,452,734	14,647	99
3732	Boat building and repairing.....1963..	360,208	321,665	11,649	26,894	97	338,118	321,665	16,453	95
	1958..	329,009	284,485	20,332	24,192	93	300,143	284,485	15,658	95
3741	Locomotives and parts.....1963..	437,872	341,955	70,476	25,441	83	378,088	341,955	36,133	90
	1958..	407,540	321,162	56,016	30,362	85	355,168	321,162	34,006	90
3742	Railroad and street cars.....1963..	927,184	813,394	83,395	30,395	91	870,972	813,394	57,578	93
	1958..	562,190	474,469	68,928	18,793	87	528,598	474,469	54,129	90
3751	Motorcycles, bicycles, and parts..1963..	192,851	151,967	31,789	9,095	83	163,355	151,967	11,388	93
	1958..	121,527	98,813	18,631	4,083	84	105,821	98,813	7,008	93
3791	Trailer coaches.....1963..	713,119	686,338	15,183	11,598	98	690,339	686,338	4,001	99
	1958..	461,053	441,635	4,108	15,310	99	444,782	441,635	3,147	99
3799	Transportation equipment, n.e.c....1963..	167,375	141,916	16,720	8,739	89	190,438	141,916	48,522	75
	1958..	92,811	73,005	11,971	7,835	86	99,954	73,005	26,949	73

Note: See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.  
<sup>1</sup>Represents the value of work done.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Ship building and repairing (SIC 3731)	Other industries
SHIP BUILDING AND REPAIRING INDUSTRY				
	Total value of work done, shipments, and receipts of the industry.....	(X)	1,679,765	(X)
	Primary products, total.....	1,518,015	1,507,891	10,124
37311	Nonpropelled ships (barges, etc.), new construction.....	82,238	81,571	667
37312	Self-propelled U.S. military ships, new construction.....	681,793	677,208	4,585
37313	Self-propelled nonmilitary ships, new construction.....	242,770	241,712	1,058
37314	Ship repair, U.S. military.....	221,851	220,794	1,057
37316	Repair of nonmilitary ships.....	277,423	274,666	2,757
37310	Ship building and repairing, n.s.k.....	11,940	11,940	-
	Secondary products, total.....	(X)	117,950	(X)
34411	Fabricated structural iron and steel for buildings.....	(X)	6,826	(X)
34412	Fabricated structural iron and steel for bridges.....	(X)	3,293	(X)
34413	Other fabricated structural iron and steel.....	(X)	25,823	(X)
35595	Other special industry machinery, and equipment.....	(X)	3,984	(X)
	Other secondary products.....	(X)	78,024	(X)
34336	Other heating equipment (except electric) and parts for nonelectric heating equipment.....	(X)	(over 2)	(X)
34431	Heat exchangers and steam condensers.....	(X)	(2-5)	(X)
34432	Fabricated steel plate, including stacks and weldments.....	(X)	(2-5)	(X)
35112	Steam, gas, and hydraulic turbine and parts; steam engines and parts.....	(X)	(2-5)	(X)
35314	Power cranes (including locomotive, full circle, revolving with booms) draglines, shovels and parts.....	(X)	(5-10)	(X)
35540	Paper industries, machinery and parts and attachments.....	(X)	(2-5)	(X)
35611	Industrial pumps, except hydraulic fluid power.....	(X)	(2-5)	(X)
35690	General industrial machinery, n.e.c.....	(X)	(over 2)	(X)
35990	Carburetors, pistons, and other machine shop products.....	(X)	(5-10)	(X)
37324	Boat repair.....	(X)	(over 2)	(X)
	Miscellaneous receipts, total.....	(X)	53,924	(X)
	Contract and commission work.....	(X)	8,180	(X)
	Sales of products bought and resold.....	(X)	7,173	(X)
	Scrap and salable refuse.....	(X)	4,862	(X)
	Other.....	(X)	33,709	(X)
37316	Listing of other industries with over \$2 million shipments of the primary product classes: 3732 Boat building and repairing.....	(X)	(X)	2,522
		All industries	Boat building and repairing (SIC 3732)	Other industries
BOAT BUILDING AND REPAIRING INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	360,208	(X)
	Primary products, total.....	338,118	321,665	16,453
37321	Inboard motor boats (all types).....	125,893	122,634	3,259
37322	Outboard motor boats (all types including prefabricated kits).....	79,600	77,622	1,978
37323	All other boats (sailboats, rowboats, canoes, etc.).....	36,527	33,028	3,499
37324	Boat repair, military and nonmilitary.....	42,630	35,229	7,401
37320	Boat building and repairing, n.s.k.....	53,468	53,152	316
	Secondary products, total.....	(X)	11,649	(X)
37316	Repair of nonmilitary ships.....	(X)	2,522	(X)
	Other secondary products.....	(X)	9,127	(X)
	Miscellaneous receipts, total.....	(X)	26,894	(X)
	Contract and commission work.....	(X)	2,102	(X)
	Sales of products bought and resold.....	(X)	15,379	(X)
	Other.....	(X)	9,413	(X)
37324	Listing of other industries with over \$2 million shipments of the primary product classes: 3731 Ship building and repairing.....	(X)	(X)	(over 2)

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Locomotives and parts (SIC 3741)	Other industries
LOCOMOTIVES AND PARTS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	437,872	(X)
	Primary products, total.....	378,088	341,955	36,133
37411	Locomotives, new, railroad road service type, and switching type.....	132,699	(D)	(D)
37412	Other new locomotives; industrial and mining type.....	8,715	(D)	(D)
37413	Parts for locomotives, for sale separately, and rebuilt locomotives.....	236,674	202,949	33,725
	Secondary products, total.....	(X)	70,476	(X)
35192	Diesel and semidiesel engines.....	(X)	(over 2)	(X)
35197	Parts and accessories for internal combustion engines.....	(X)	(over 2)	(X)
36213	Land transportation motors, generators, and control equipment and parts.....	(X)	(20-50)	(X)
36214	Prime mover generator sets, except steam or hydraulic turbine.....	(X)	(over 2)	(X)
	Miscellaneous receipts.....	(X)	25,441	(X)
37413	Listing of other industries with over \$2 million shipments of the primary product classes:			
	3323 Steel foundries.....	(X)	(X)	(2-5)
	3519 Internal combustion engines.....	(X)	(X)	(over 2)
	3585 Refrigeration machinery.....	(X)	(X)	(over 2)
	3722 Aircraft engines and parts.....	(X)	(X)	(over 2)
	3742 Railroad and street cars.....	(X)	(X)	(5-10)
		All industries	Railroad and street cars (SIC 3742)	Other industries
RAILROAD AND STREET CARS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	927,184	(X)
	Primary products, total.....	870,972	813,394	57,578
37421	Passenger train cars, new.....	36,470	36,470	-
37422	Freight train cars, new.....	522,992	(D)	(D)
37423	Street cars, and parts and accessories for railroad and street cars; rebuilt passenger and freight train cars.....	310,227	(D)	(D)
37420	Railroad and street cars, n.s.k.....	1,283	(D)	(D)
	Secondary products, total.....	(X)	83,395	(X)
19310	Tanks and tank components.....	(X)	(over 2)	(X)
34411	Fabricated structural iron and steel for buildings.....	(X)	(over 2)	(X)
34990	Fabricated metal products, n.e.c.....	(X)	(5-10)	(X)
35319	Other construction machinery and equipment, including construction machinery parts, n.e.c.....	(X)	(5-10)	(X)
35591	Chemical manufacturing industries machinery and equipment.....	(X)	(over 2)	(X)
37291	Other aircraft parts and auxiliary equipment.....	(X)	(5-10)	(X)
37413	Parts for locomotives, for sale separately, and rebuilt locomotives.....	(X)	(5-10)	(X)
38111	Aircraft flight, nautical, and navigational instruments and automatic pilot.....	(X)	(over 2)	(X)
	Miscellaneous receipts, total.....	(X)	30,395	(X)
	Contract and commission work.....	(X)	793	(X)
	Sales of products bought and resold.....	(X)	8,480	(X)
	Repair work.....	(X)	8,680	(X)
	Other.....	(X)	12,442	(X)
3742-	Listing of other industries with over \$2 million shipments of the primary product classes:			
	3323 Steel foundries.....	(X)	(X)	17,125
	3429 Hardware, n.e.c.....	(X)	(X)	(over 2)
	3441 Fabricated structural steel.....	(X)	(X)	(10-20)
	3717 Motor vehicles and parts.....	(X)	(X)	7,470
	3722 Aircraft engines and parts.....	(X)	(X)	(over 2)

See footnotes at end of table.



**TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:**  
**1963—Continued**

Prod. class code	Class of products and miscellaneous receipts	All industries	Motorcycles, bicycles, and parts (SIC 3751)	Other industries
<b>MOTORCYCLES, BICYCLES, AND PARTS INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	192,851	(X)
37510	Bicycles, motorcycles, motorbikes, scooters, and parts.....	163,355	151,967	11,388
	Secondary products, total.....	(X)	31,789	(X)
35227	Lawn mowers and parts.....	(X)	(2-5)	(X)
36341	Electric fans, except industrial type.....	(X)	(over 2)	(X)
39430	Baby carriages and childrens' vehicles, except bicycles.....	(X)	(10-20)	(X)
	Miscellaneous receipts, total.....	(X)	9,095	(X)
	Contract and commission work.....	(X)	55	(X)
	Sales of products bought and resold.....	(X)	7,572	(X)
	Other miscellaneous receipts.....	(X)	1,468	(X)
37510	Listing of other industries with over \$2 million shipments of the primary product classes:			
	3717 Motor vehicles and parts.....	(X)	(X)	(2-5)
	3943 Children's vehicles.....	(X)	(X)	(2-5)
<b>TRAILER COACHES INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	713,119	(X)
37910	Trailer coaches, housing type.....	690,339	686,338	4,001
	Secondary products, total.....	(X)	15,183	(X)
37991	Automobile trailers, excluding housing type coaches.....	(X)	3,891	(X)
	Other secondary products.....	(X)	11,292	(X)
	Miscellaneous receipts.....	(X)	11,598	(X)
	Contract and commission work.....	(X)	137	(X)
	Sales of products bought and resold.....	(X)	9,313	(X)
	Other miscellaneous receipts.....	(X)	2,148	(X)
<b>TRANSPORTATION EQUIPMENT, N.E.C., INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	167,375	(X)
	Primary products, total.....	190,438	141,916	48,522
37991	Automobile trailers, excluding housing type coaches.....	67,645	59,997	7,648
37992	Other transportation equipment.....	107,459	66,768	40,691
37990	Transportation equipment, n.e.c., n.s.k.....	15,334	15,151	183
	Secondary products, total.....	(X)	16,720	(X)
37176	Parts and accessories for passenger cars, trucks, and busses shipped to other than motor vehicle manufacturers.....	(X)	3,083	(X)
	Other secondary products.....	(X)	13,637	(X)
	Miscellaneous receipts, total.....	(X)	8,739	(X)
	Contract and commission work.....	(X)	2,297	(X)
	Sales of products bought and resold.....	(X)	3,585	(X)
	Other miscellaneous receipts.....	(X)	2,857	(X)
37991	Listing of other industries with over \$2 million shipments of the primary product classes:			
	3791 Trailer coaches.....	(X)	(X)	3,891
37992	3522 Farm machinery and equipment.....	(X)	(X)	24,946
	3943 Children's vehicles.....	(X)	(X)	(2-5)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Total shipments including interplant transfers <sup>1</sup>			
		1963		1958	
		Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
		(number of ships)		(number of ships)	
3731- --	SHIP BUILDING AND REPAIRING, TOTAL <sup>2</sup> .....	(X)	1,518,015	(X)	1,467,381
37311 --	Nonpropelled ships (barges, etc.) new construction.....	(X)	82,238	(X)	95,266
37311 10	Nonpropelled ships, new construction, military, including hopper barges, tank barges, covered cargo barges, deck barges, dredges, car floats, etc.....	202	1,646	(NA)	( <sup>3</sup> )
	Nonpropelled ships—nonmilitary ships, new construction:				
37311 21	Hopper barges.....	490	18,765	(NA)	26,827
37311 31	Tank barges.....	911	17,136	(NA)	12,670
37311 41	Covered cargo barges.....	162	9,152	(NA)	12,901
37311 51	Deck barges.....	229	7,593	(NA)	9,124
37311 61	Dredges.....	33	2,980	(NA)	2,108
37311 71	Car floats.....	-	-	(NA)	334
37311 81	Other nonmilitary nonpropelled vessels.....	1,284	24,966	(NA)	31,302
37312 10	Self-propelled ships, new construction, U.S. military (including combat ships, troop transport vessels, fleet auxiliaries service craft, etc.)...	(X)	681,793	(X)	469,965
37313 10	Self-propelled ships, new construction, nonmilitary (including passenger ships, passenger-cargo, dry cargo, tankers, towboats, tugboats, tender vessels, commercial sailing vessels, yachts, ferryboats, fireboats, etc.)	(X)	242,770	(X)	441,220
37314 --	Ship repair, U.S. military.....	(X)	221,851	(X)	123,828
	Military sea transportation service:				
37314 21	Conversions and reconversions.....	(X)	2,325	(X)	441,242
37314 29	All other repairs.....	(X)	25,435	(X)	82,596
	All other:				
37314 31	Conversions and reconversions.....	(X)	62,304	(X)	( <sup>4</sup> )
37314 39	All other repairs.....	(X)	131,787	(X)	( <sup>5</sup> )
37316 --	Repair of nonmilitary ships.....	(X)	277,423	(X)	326,778
	Maritime Administration:				
37316 13	Conversions and reconversions.....	(X)	19,421	(X)	40,104
37316 19	All other repairs.....	(X)		(X)	
	All others:				
37316 53	Conversions and reconversions.....	(X)	19,326	(X)	61,543
37316 59	All other repairs.....	(X)	238,316	(X)	225,131
37316 00	Repair of nonmilitary ships, n.s.k.....	(X)	360	(X)	-
37310 00	Ship building and repairing, n.s.k.....	(X)	11,940	(X)	310,314
		(number of boats)		(number of boats)	
3732- --	BOAT BUILDING AND REPAIRING, TOTAL.....	(X)	338,118	(X)	300,143
37321 --	Inboard motor boats (all types).....	(X)	125,893	(X)	76,095
37321 11	Boats of special Army, Navy, or Coast Guard design (new construction)...	(NA)	5,242	(NA)	3,582
	Boats, nonmilitary, new construction (other than specially designed types built for the Army, Navy, or Coast Guard):				
	Motorboats, excluding sailboats with auxiliary power, lifeboats, and prefabricated boat construction kits:				
	Inboard powered boats:				
37321 31	Runabouts (wood, metal, plastic reinforced).....	3,112	10,046	( <sup>6</sup> )	( <sup>6</sup> )
	Cabin cruisers:				
	Under 26' in length:				
37321 41	Wood.....	1,928	7,574	} 611,446	632,051
37321 51	Metal.....	29	129		
37321 61	Plastics (reinforced).....	982	3,289		
	26' or over and less than 40' in length:				
37321 43	Wood.....	5,130	48,941	} 2,698	27,608
37321 53	Metal.....	354	4,116		
37321 63	Plastics (reinforced).....	349	6,070		
	40' and over in length:				
37321 45	Wood.....	349	15,927	} 345	12,854
37321 55	Metal.....	67	3,820		
37321 65	Plastics (reinforced).....	77	2,324		
37321 71	Inboard-outboard boats (inboard engine with outdrive propulsion)....	6,645	17,483	(NA)	(NA)
37321 00	Inboard motor boats, n.s.k.....	(X)	932	(X)	-

See footnotes at end of table.



TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total shipments including interplant transfers				
		1963		1958		
		Quantity (number of boats)	Value (\$1,000)	Quantity (number of boats)	Value (\$1,000)	
	BOATS BUILDING AND REPAIRING—Continued					
37322 --	Outboard motor boats (all types including prefabricated kits).....	(X)	79,600	(X)	108,360	
	Outboard motor boats (all types) including prefabricated kits (excluding sailboats with auxiliary power, lifeboats):					
	Runabouts:					
	13'6" and under in length:					
37322 21	Wood.....	5,761	1,284	764,902	714,857	
37322 31	Metal.....	37,322	3,734			
37322 41	Plastic (reinforced).....	9,281	3,012			
	13'7" to 15'6" in length:					
37322 23	Wood.....	4,904	1,387	7140,384	752,772	
37322 33	Metal.....	30,292	6,332			
37322 43	Plastic (reinforced).....	29,247	15,118			
	15'7" to 17'6" in length:					
37322 25	Wood.....	4,129	3,267	7 844,072	7 835,809	
37322 35	Metal.....	8,731	3,780			
37322 45	Plastic (reinforced).....	25,909	22,208			
	17'7" and over in length:					
37322 26	Wood.....	3,071	3,422	7	7	
37322 36	Metal.....	1,574	983			
37322 46	Plastic (reinforced).....	3,087	3,313			
	Utility:					
37322 27	Wood.....	320	459	(7)	(7)	
37322 37	Metal.....	17,307	2,937			
37322 47	Plastic (reinforced).....	1,671	663			
	Cabin cruisers:					
37322 28	Wood.....	691	1,137	(8)	(8)	
37322 38	Metal.....	824	1,234			
37322 48	Plastic (reinforced).....	2,735	3,706			
37322 51	Prefabricated boat construction kits.....	(NA)	193	17,694	4,922	
37322 00	Outboard motor boats, n.s.k.....	(X)	1,431	(X)	-	
37323 --	All other boats (sailboats, rowboats, canoes, etc.).....	(X)	36,527	(X)	15,497	
37323 13	Sailboats.....	13,724	17,924	26,071	15,497	
37323 19	Other boats, including rowboats, canoes, skiffs, dinghies, lifeboats, etc.....	85,954	18,504			
37323 00	All other boats, n.s.k.....	(X)	99			(X)
37324 --	Boat repair—military and nonmilitary.....	(X)	42,630	(X)	55,086	
37324 11	Repair of U.S. military boats (receipts for repair work done on Army, Navy, or Coast Guard boats).....	(X)	7,066	(X)	8,696	
37324 21	Repair of nonmilitary boats (receipts for repair work done on all other boats).....	(X)	34,793	(X)	46,390	
37324 00	Boat repair, n.s.k.....	(X)	771	(X)	-	
37320 00	Boat building and repairing, n.s.k.....	(X)	53,468	(X)	45,105	
		Total shipments including interplant transfers				
		1963		1958		
		Quantity (number of units)	Weight (short tons)	Quantity (number of units)	Weight (short tons)	
3741- --	LOCOMOTIVES AND PARTS, TOTAL <sup>9</sup> .....	(X)	(X)	378,088	(X)	355,168
37411 --	Road service, road switching and switching type locomotives, total.....	(X)	(X)	132,699	(X)	204,912
37411 41	Diesel-electric.....	686	73,756	132,699	1,140	116,660
37411 43	Other.....					
37412 --	Mining and industrial types (including diesel-electric, diesel- mechanical, electric storage battery, etc.), total.....	(X)	(X)	8,715	(X)	14,796
	Mining type as reported on Census Form MA-35F.....	181	(X)	3,383	(X)	(X)
37412 11	Mining type as reported in census of manufactures.....	(X)	1,942	3,154	363	9,150
37412 17	Industrial type.....	72	2,821	5,561		

See footnotes at end of table.

TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total shipments including interplant transfers							
		1963			1958				
		Quantity (number of units)	Weight (short tons)	Value (\$1,000)	Quantity (number of units)	Weight (short tons)	Value (\$1,000)		
	LOCOMOTIVES AND PARTS--Continued								
37413 11	Parts for locomotives for sale separately (except wheels but including tenders, locomotive air brakes, repair parts, locomotive stokers, lubrication systems, super heaters, etc.).....	}	(X)	(X)	236,674	(X)	(X)	135,460	
37413 51	Rebuilt locomotives.....								
3742- --	RAILROAD AND STREET CARS, TOTAL <sup>10</sup> .....	(X)	(X)	870,972	(X)	(X)	528,598		
37421 --	Passenger train cars, new, total.....	(X)	(X)	36,470	(X)	(X)	11,416		
37421 11	Coach (excluding coach combination).....	}	266	12,662	36,470	33	2,038	4,355	
37421 98	Other passenger train cars (including postal; postal-nonpassenger combinations; express refrigeration and milk; self-propelled passenger and combination passenger-baggage cars; railmotor and multiple unit electric cars, etc.).....					83	5,063	4,355	
37422 --	Freight train cars, new, total.....					(X)	(X)	522,992	(X)
37422 11	Box.....	10,652	403,469	182,295	( <sup>12</sup> )	(NA)	( <sup>12</sup> )		
37422 15	Flat.....	7,308	255,843	99,579	1,288	29,528	18,295		
37422 25	Gondola.....	250	7,899	2,925	7,552	220,995	73,024		
37422 31	Hopper (covered).....	6,689	209,798	92,939	}	10,783	284,186	104,737	
37422 33	Hopper (uncovered).....	1,693	58,701	24,880					
37422 45	Caboose.....	226	5,766	4,381	}	12,551	(NA)	<sup>11</sup> <sup>12</sup> 123,206	
37422 35	Tank.....	}	5,933	213,516					115,993
37422 41	Refrigerator.....								
37422 98	Other freight train cars, including industrial rail cars not suitable for use on common carriers.....								
37423 --	Street cars, parts and accessories for railroad cars and street cars, and rebuilt passenger and freight train cars, total.....	(X)	(X)	310,227	(X)	(X)	<sup>11</sup> 196,539		
37423 13	Other cars, including railroad work equipment, street, subway, rapid transit, interurban cars, trolley buses, and self-propelled cars.....	}	(X)	(X)	287,150	(X)	(X)	196,539	
37423 21	Parts and accessories for passenger and freight train cars, self-propelled cars and street, rapid transit, and interurban cars (except wheels) (for sale separately).....								
37423 31	Rebuilt passenger and freight train cars:	76	4,455	5,029	( <sup>11</sup> )	(NA)	( <sup>11</sup> )		
37423 51	Rebuilt passenger train cars.....	4,166	105,225	18,048	-	-	-		
37423 51	Rebuilt freight train cars.....								
37420 00	Railroad and street cars, n.s.k.....	(X)	(X)	1,283	(X)	(X)	1,381		
	Product	Unit of measure	Total shipments including interplant transfers						
			1963		1958				
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)			
3751- --	BICYCLES, MOTORCYCLES, MOTORBIKES, MOTOR SCOOTERS, AND PARTS, TOTAL.....		(X)	163,355	(X)	105,821			
37510 13	Motorcycles, including 3-wheel (excluding sidecars); trail vehicles, motorscooters and motorbikes.....	No. of units...	33,426	19,661	}	(X)	26,019		
37510 53	Parts for motorcycles (including sidecars); trail vehicles, motorbikes, and motorscooters, including bicycle engines but excluding motorbike parts which are interchangeable with bicycle parts.....								
			(X)	9,062					
37510 61	Bicycles and parts:								
	Bicycles, complete, excluding childrens' 2-wheel sidewalk cycles with semi-pneumatic tires.....	1,000 units....	3,811	96,642	2,049	59,612			
37510 71	Parts for bicycles, including frame sets and motorbike parts which are interchangeable with bicycle parts.....		(X)	23,040	(X)	16,830			
37510 81	Motorized golf carts (electric and gasoline powered) for carrying passengers.....	No. of units...	17,790	12,103	(NA)	(NA)			
37510 00	Motorcycles, bicycles, and parts, n.s.k.....		(X)	2,847	(X)	3,360			
3791- --	TRAILER COACHES, HOUSING TYPE, TOTAL.....		(X)	690,339	(X)	444,782			
37910 21	Trailer coaches 30 feet or more in length:								
	8 feet to 9 feet 11 inches in width.....	No. of units....	15,401	60,152	}	135,158	418,861		
37910 23	10 feet to 11 feet 11 inches in width.....	..do.....	119,344	449,072					
37910 25	12 feet and over in width.....	..do.....	16,050	87,237					
37910 31	Trailer coaches under 30 feet in length:								
	11 feet to 15 feet 11 inches in length.....	..do.....	12,939	12,597	}	(X)	<sup>13</sup> 25,921		
37910 33	16 feet to 24 feet 11 inches in length.....	..do.....	21,701	38,278					
37910 35	25 feet to 29 feet 11 inches in length.....	..do.....	4,782	14,047					
37910 41	Pick up coaches (for mounting on trucks).....	..do.....	16,439	14,501					
37910 00	Trailer coaches, n.s.k.....		(X)	14,455	(X)				

See footnotes at end of table



TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3799- --	TRANSPORTATION EQUIPMENT, N.E.C., TOTAL.....	.....	(X)	190,438	(X)	99,954
37991 --	Automobile trailers, excluding housing type coaches.....	.....	(X)	67,645	(X)	22,653
37991 15	Automobile trailers, excluding housing type coaches (commercial display, utility, camp, etc.) complete units.....	1,000 units....	73	60,072	25	11,888
37991 51	Chassis for automobile trailers, sold separately.....	...do.....	(NA)	6,405	54	10,765
37991 00	Automobile trailers, excluding housing type coaches, n.s.k.....	.....	(X)	1,168	(X)	-
37992 --	Other transportation equipment.....	.....	(X)	107,459	(X)	77,301
	Farm wagons, trucks, and other farm transportation equipment and parts:					
	As reported in the census of manufactures.....	.....	(X)	45,818	(X)	30,773
	As reported on Census Annual Form MA-35A.....	.....	(X)	48,196	(X)	37,501
	Wagons and trucks (chassis only) and trailer gears:					
37992 13	2-wheel.....	1,000 units....	2	436	2	604
37992 14	4-wheel.....	...do.....	92	12,225	105	13,180
	Boxes and racks for mounting on wagons, trucks, and trailer gears:					
37992 15	Manual unloading or dump.....	...do.....	26	6,870	40	6,883
	Power unloading:					
37992 16	Grain type (cannot handle forage).....	...do.....	11	3,108	14	6,510
	Forage type:					
37992 17	Rear unloading only.....	...do.....	7	2,910		
37992 18	Side unloading (with or without rear unloading).....	...do.....	16	13,434		
37992 19	Other farm transportation equipment.....	.....	(X)	4,573	(X)	2,885
37992 21	Attachments.....	.....	(X)	2,865	(X)	3,772
37992 22	Parts.....	.....	(X)	1,775	(X)	3,667
37992 31	Handcarts and pushcarts, including parts and attachments.....	.....	(X)	6,636	(X)	8,855
37992 53	Wheelbarrows.....	1,000 units....	1,200	8,239	(NA)	6,642
37992 91	Boat trailers.....	...do.....	97	13,903	178	19,878
37992 98	Other miscellaneous transportation equipment.....	.....	(X)	22,550	(X)	7,357
37992 00	Miscellaneous transportation equipment, n.s.k.....	.....	(X)	10,313	(X)	3,796
37990 00	Transportation equipment, n.e.c., n.s.k.....	.....	(X)	15,334	(X)	(NA)

Standard Note: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>The total value of work done for ship building and repairing differs from "value of shipments." See text for explanation. However, the figures for codes 3731110 through 3731181 are value of shipments.

<sup>2</sup>Excludes products manufactured by facilities operated by the Department of Defense, or at Federal, District of Columbia, and State prisons.

<sup>3</sup>In 1958, data for code 3731110, "Nonpropelled ships, new construction, military, including hopper barges, etc." were withheld to avoid disclosing figures for individual companies. They are included with code 3731000 "Ship building and repairing, not specified by kind."

<sup>4</sup>In 1958 code 3731431, "All other conversions and reconversions" was included with code 3731421, "Military sea transportation service, conversions and reconversions."

<sup>5</sup>In 1958 code 3731439, "All other repairs" was included with code 3731429, "Military sea transportation service, all other repairs."

<sup>6</sup>1958 data for inboard powered runabouts, code 3732131, were included with cabin cruisers based on length of boat. Such runabouts are almost all under 26' in length.

<sup>7</sup>1958 data for outboard powered utility boats, codes 3732227, 3732237, and 3732247, are included with runabouts based on length of boat.

<sup>8</sup>1958 data for outboard powered cabin cruisers, codes 3732228, 3732238, and 3732248, were included with runabouts based on length of boat. Such cabin cruisers are almost all over 15'7" in length.

<sup>9</sup>Data excludes parts shipped by railroad repair shops. No new or rebuilt locomotives were produced in railroad repair shops in either 1963 or 1958.

<sup>10</sup>See table 6A-1 for quantity and value of shipments of new and rebuilt railroad cars shipped by shops of operating railroads in the United States.

<sup>11</sup>Product class 37422 and product code 3742298 include an undetermined value from product class 37423 and 3742331.

<sup>12</sup>In 1958 data for box cars (code 3542211) are included with figures for other freight train cars (code 3742298) in 1958.

<sup>13</sup>In 1958, an undetermined dollar amount of other automobile trailers (boat, camping, commercial display, etc.) was included in code 3791000.

TABLE 6A-2. New and Rebuilt Passenger and Freight Train Cars Shipped by Shops of Operating Railroads: 1963 and 1958

Product code	Product <sup>1</sup>	Total shipments including interplant transfers					
		1963			1958		
		Quantity (number of units)	Weight (short tons)	Value (\$1,000)	Quantity (number of units)	Weight (short tons)	Value (\$1,000)
3742--	NEW AND REBUILT <sup>2</sup> PASSENGER AND FREIGHT TRAIN CARS, TOTAL <sup>3</sup> .....	18,255	(X)	178,489	17,401	(X)	152,562
37421--	New passenger train cars.....	(X)	(X)	(X)	-	-	-
37421 11	Coach (excluding coach combination).....	(X)	(X)	( <sup>4</sup> )	-	-	-
37421 98	Other passenger train cars.....	(X)	(X)	( <sup>4</sup> )	-	-	-
37422--	New freight train cars.....	(X)	(X)	(X)	(X)	(X)	(X)
37422 11	Box.....	4,752	150,864	64,949	(X)	(X)	( <sup>5</sup> )
37422 15	Flat.....	497	18,943	8,208	630	18,539	4,462
37422 25	Gondola.....	-	-	-	3,257	91,564	34,779
37422 31	Hopper (covered).....	-	-	-	4,863	125,865	39,254
37422 33	Hopper (uncovered).....	5,368	121,896	46,888			
37422 35	Tank.....	-	-	-			
37422 41	Refrigerator.....	921	39,627	19,123			
37422 45	Caboose.....	(X)	(X)	( <sup>4</sup> )	8,651	(NA)	74,067
37422 98	Other freight train cars, including industrial rail cars not suitable for use on common carriers.....	(X)	(X)	( <sup>4</sup> )			
37423--	Rebuilt cars and other cars.....	(X)	(X)	(X)			
37423 31	Rebuilt passenger train cars.....	(X)	(X)	( <sup>4</sup> )			
37423 51	Rebuilt freight train cars.....	5,845	62,476	30,483	48,838	(NA)	(NA)
37423 13	Other cars, including railroad work equipment, street, subway, rapid transit, trackless trolleys, and interurban cars.....	872	(NA)	48,838			

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>Values of railroad cars built by railroads for own use represents the amounts at which they were written into property accounts.<sup>2</sup>A passenger and freight train car is defined as rebuilt when the cost of their dismantling, improvement and modernization is more than 50 percent of the replacement cost of a new unit of the same class and kind at the time of rebuilding. Conversions, reclassifications or units which were reconditioned by replacing defective parts are not included.<sup>3</sup>Excludes parts for passenger and freight cars, made in railroad car shops.<sup>4</sup>The 1963 product codes 3742111, 3742198, 3742245, 3742298, and 3742331 are included with the figure for "Other cars" (code 3742313).<sup>5</sup>The 1958 product code 3742211 is included in the figure of \$74,067 thousand.

TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products, Shipped by All Producers: 1963 and 1958

Product code	Product and year	Indexes (1954 = 100)		Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value			Production	Unit value
373--	Ship and boat building.....1963..	( <sup>1</sup> )	( <sup>1</sup> )	374--	Railroad equipment.....1963..	110	136
	1958..	( <sup>1</sup> )	( <sup>1</sup> )		1958..	88	121
3731-	Shipbuilding and repairing.....1963..	( <sup>1</sup> )	( <sup>1</sup> )	3741-	Locomotives and parts <sup>3</sup> .....1963..	86	119
	1958..	( <sup>1</sup> )	( <sup>1</sup> )		1958..	89	109
37311	Nonpropelled ships (barges, etc.) new construction, nonmilitary...1963..	141	84	37411	Road service, road switching and switching type locomotives.....1963..	47	120
	1958..	138	100		1958..	79	109
37313	Self-propelled ships—nonmilitary, new construction.....1963..	132	81	3742-	Railroad and street cars <sup>4</sup> .....1963..	125	149
	1958..	194	100		1958..	87	129
3732-	Boat building and repairing <sup>2</sup> .....1963..	185	114	37422	Freight train cars, new.....1963..	154	149
	1958..	146	126		1958..	106	129
37321	Inboard motor boats (all types)....1963..	163	135	3751-	Bicycles, motorcycles, motorbikes, motor scooters, and parts.....1963..	226	81
	1958..	99	128		1958..	130	92
37322	Outboard motor boats (all types including prefabricated kits).....1963..	423	115	379--	Transportation equipment, n.e.c.....1963..	( <sup>5</sup> )	( <sup>5</sup> )
	1958..	523	130		1958..	( <sup>5</sup> )	( <sup>5</sup> )
37323	All other boats (sailboats, row-boats, canoes etc.).....1963..	233	77	3791-	Trailer coaches, housing type.....1963..	279	110
	1958..	65	117		1958..	195	105
				3799-	Transportation equipment, n.e.c.....1963..	( <sup>5</sup> )	( <sup>5</sup> )
					1958..	( <sup>5</sup> )	( <sup>5</sup> )

n.e.c. Not elsewhere classified.

<sup>1</sup>Not shown because comparable quantity data were not obtained for a significant portion of these products.<sup>2</sup>Adjusted to include boat repair—military and nonmilitary (product class 37324) as well as boat building and repairing, n.s.k.<sup>3</sup>Adjusted to include parts for locomotives, for sale separately, and rebuilt locomotives (product class 37413), as well as mining and industrial type locomotives (product class 37412).<sup>4</sup>Indexes exclude cars shipped by shops of operating railroads. Production indexes have been adjusted to include product class 37421 (passenger train cars, new) and product class 37423 (street cars, parts and accessories for railroad cars and street cars, and rebuilt passenger and freight train cars).<sup>5</sup>Not shown pending further review of data covering automobile trailers, excluding housing type coaches (product class 37991) and selected items in product class 37992 (other transportation equipment).



TABLE 6C. **Product Classes—Value Shipped by All Manufacturing Establishments:**  
**1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3731-	Ship building and repairing <sup>2</sup> .....	1,518,015	1,400,008	1,360,038	1,215,744	1,447,149	1,467,381	970,279	756,510
37311	Nonpropelled ships (barges, etc.) new construction <sup>2</sup> .....	82,238	52,794	50,423	54,320	77,050	95,266	69,138	25,549
37312	Self-propelled U.S. military ships, new construction <sup>2</sup> .....	681,793	507,283	500,980	405,978	563,687	469,965	296,263	52,168
37313	Self-propelled nonmilitary ships, new construction <sup>2</sup> .....	242,770	378,539	329,361	350,587	378,347	441,220	227,424	132,009
37314	Ship repair, U.S. military <sup>2</sup> .....	221,851	171,479	165,304	121,795	119,118	123,838	133,315	48,452
37316	Repair of nonmilitary ships <sup>2</sup> .....	277,423	278,764	296,328	274,352	301,103	326,778	239,884	491,104
37310	Ship building and repairing, n.s.k. <sup>2</sup> .....	11,940	(11,149)	(17,642)	(8,712)	(7,844)	10,314	4,255	7,228
3732-	Boat building and repairing.....	338,118	294,978	290,012	331,203	341,816	300,143	163,605	105,446
37321	Inboard motorboats (all types).....	125,893	91,539	87,032	99,914	87,373	76,095	60,335	65,279
37322	Outboard motorboats (all types including prefabricated kits).....	79,600	90,870	102,544	128,684	134,638	108,360	15,942	
37323	All other boats (sailboats, rowboats, canoes, etc.).....	36,527	(S)	(S)	(S)	(S)	15,497	20,370	
37324	Boat repair, military and nonmilitary.....	42,630	53,497	49,266	46,133	51,071	55,086	46,722	30,787
37320	Boat building and repairing.....	53,468	(S)	(S)	(S)	(S)	45,105	20,236	9,380
3741-	Locomotives and parts.....	378,088	402,447	294,527	333,352	351,725	355,168	365,169	396,635
37411	Locomotives, new, railroad, road service type and switching type.....	132,699	194,374	146,866	161,424	193,778	204,912	237,788	285,232
37412	Other new locomotives, industrial and mining type.....	8,715	(5,992)	(7,714)	10,349	11,632	14,796	14,882	15,511
37413	Parts for locomotives, for sale separately, and rebuilt locomotives.....	236,674	202,081	139,947	161,579	146,315	135,460	112,499	95,892
3742-	Railroad and street cars.....	870,972	647,588	519,507	752,774	514,616	528,598	468,233	<sup>3</sup> 713,269
37421	Passenger train cars, new.....	36,470	16,561	18,132	39,253	12,210	11,416	96,180	<sup>3</sup> 77,216
37422	Freight train cars, new.....	522,992	369,570	263,588	710,203	499,088	<sup>4</sup> 319,262	<sup>4</sup> 227,093	<sup>3</sup> 393,258
37423	Street cars and parts and accessories for railroad and street cars; rebuilt passenger and freight train cars.....	310,227	257,776	234,432			<sup>4</sup> 196,539	<sup>4</sup> 144,960	<sup>3</sup> 242,795
37420	Railroad and street cars, n.s.k.....	1,283	(3,681)	(3,355)	(3,318)	(3,318)	1,381	-	-
37510	Bicycles, motorcycles, motorbikes, scooters and parts.....	163,355	142,251	125,975	123,230	133,639	105,821	88,340	158,652
37910	Trailer coaches, housing types.....	690,339	499,989	447,653	505,089	464,073	<sup>5</sup> 444,782	<sup>5</sup> 216,909	121,834
3799-	Transportation equipment, n.e.c.....	190,438	119,870	118,429	112,446	120,223	99,954	58,497	70,016
37991	Automobile trailers, excluding housing type coaches.....	67,645	(40,344)	(26,173)	(37,045)	(34,804)	22,653	14,615	14,016
37992	Other transportation equipment.....	107,459	79,526	92,256	75,401	85,419	77,301	43,882	56,000
37990	Transportation equipment, n.e.c., n.s.k.....	15,334							

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Represents value of work done rather than value of shipments.

<sup>3</sup>Data include value of new and rebuilt railroad cars made in railroad car shops. The 1947 total and detailed statistics include \$37.9 million of new railroad cars shipped by railroad repair shops. Value of railroad cars built by railroads for own use represent amounts at which they were written into property accounts.

<sup>4</sup>Product class 37422 includes an undetermined value from product class 37423.

<sup>5</sup>Includes an undetermined dollar amount of other automobile trailers (boat, camping, commercial display, etc.).

**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
NONPROPELLED SHIPS (BARGES, ETC.), NEW CONSTRUCTION <sup>2</sup> (37311)			REPAIR OF NONMILITARY SHIPS <sup>2</sup> (37316)—Continued			FREIGHT TRAIN CARS, NEW (37422)		
United States, total....	82,238	95,266	North Central.....	17,612	24,613	United States, total....	522,992	
Northeast and North Central.	30,998	26,503	South Atlantic.....	91,000	110,947	Middle Atlantic.....	154,385	
South Atlantic.....	4,866	6,508	Florida.....	27,358	18,571	North Central.....	204,137	
East South Central.....	7,443	21,840	East South Central.....	15,336	32,722	Ohio.....	49,493	
West South Central.....	35,381	35,225	West South Central.....	45,243	39,704	South and West.....	164,470	
Louisiana.....	16,472	14,836	Louisiana.....	23,210	21,127			
Texas.....	18,909	20,389	Texas.....	22,033	18,577	STREET CARS AND PARTS AND ACCESSORIES FOR RAILROAD AND STREET CARS; REBUILT PASSENGER AND FREIGHT TRAIN CARS (37423)		
Pacific.....	3,550	5,190	Pacific.....	43,876	41,508	United States, total....	310,227	
SELF-PROPELLED, U.S. MILITARY SHIPS, NEW CONSTRUCTION <sup>2</sup> (37312)			Washington.....	6,896	5,093	Northeast.....	80,431	
United States, total....	681,793	469,965	California.....	30,226	31,371	East North Central.....	136,273	
Northeast.....	310,708	273,488	INBOARD MOTORBOATS (ALL TYPES) (37321)			Indiana.....	34,650	
North Central.....	19,058	26,950	United States, total....	125,893	76,095	Illinois.....	34,179	
South.....	247,805	126,742	New England.....	3,157	3,112	Michigan.....	39,396	
Pacific.....	104,222	42,785	Middle Atlantic.....	15,978	15,596			
Washington.....	53,869	32,050	New Jersey.....	6,879	6,863	West North Central.....	77,932	
SELF-PROPELLED NONMILITARY SHIPS, NEW CONSTRUCTION <sup>2</sup> (37313)			East North Central.....	36,061	3,964	South.....	13,569	
United States, total....	242,770	441,220	Ohio.....	3,964	21,703	Pacific.....	2,022	
Northeast.....	73,787	148,457	Indiana.....	3,783		California.....	2,022	
New York.....	2,191	5,302	Wisconsin.....	1,992				
North Central.....	6,167	27,924	West North Central.....	1,639		BICYCLES, MOTORCYCLES, MOTORBIKES, SCOOTERS AND PARTS (37510)		
Wisconsin.....	3,675	8,048	South Atlantic.....	45,535	24,498	United States, total....	163,355	
South Atlantic.....	71,375	232,871	Maryland.....	27,486	17,269	New England.....	9,550	
East South Central.....	14,513		Florida.....	12,231	4,393	Middle Atlantic.....	20,623	
West South Central.....	57,711		East South Central.....	7,417	2,264	New York.....	20,149	
Louisiana.....	47,751	( <sup>3</sup> )	West South Central.....	5,598	2,490	North Central.....	74,465	
Texas.....	9,960	3,949	West.....	10,508	6,432	Indiana.....	4,232	
Pacific.....	19,217	( <sup>3</sup> )	California.....	5,468	4,460	Michigan.....	1,809	
SHIP REPAIR, U.S. MILITARY <sup>2</sup> (37314)			OUTBOARD MOTORBOATS (ALL TYPES INCLUDING PREFABRICATED KITS) (37322)			South.....	47,344	
United States, total....	221,851	123,838	United States, total....	79,600	108,360	West.....	11,373	
Northeast and North Central.	60,875	( <sup>3</sup> )	New England.....	3,813	15,615	AUTOMOBILE TRAILERS, EXCLUDING HOUSING TYPE COACHES (37991)		
New York.....	26,220	14,789	Massachusetts.....	3,349		1963 <sup>1</sup>	1958	
South.....	79,474	( <sup>3</sup> )	Middle Atlantic.....	10,652	4,478	United States, total....	67,645	22,653
Virginia.....	28,111	8,959	New York.....	5,483		Northeast.....	7,898	2,001
Louisiana.....	13,626	2,860	East North Central.....	22,674	( <sup>3</sup> )	Pennsylvania.....	3,071	( <sup>3</sup> )
West.....	81,502	( <sup>3</sup> )	Indiana.....	13,217	13,352	East North Central.....	25,906	8,901
California.....	61,766	29,563	Michigan.....	2,847	5,150	Ohio.....	4,604	( <sup>2</sup> )
REPAIR OF NONMILITARY SHIPS <sup>2</sup> (37316)			Wisconsin.....	6,096	7,384	Indiana.....	16,631	( <sup>2</sup> )
United States, total....	277,423	326,778	West North Central.....	7,035	( <sup>3</sup> )	Illinois.....	2,153	2,067
New England.....	3,565	4,619	Minnesota.....	5,579	8,722	Wisconsin.....	2,518	( <sup>2</sup> )
Massachusetts.....	2,454	3,201	South Atlantic.....	10,776	( <sup>3</sup> )	West North Central.....	4,353	1,364
Middle Atlantic.....	60,791	72,665	North Carolina.....	1,915	1,440	Iowa.....	2,404	( <sup>2</sup> )
New York.....	22,963	40,714	Georgia.....	2,623	1,410	Kansas.....	1,395	( <sup>2</sup> )
New Jersey.....	28,395	26,038	Florida.....	3,059	5,262	South.....	5,976	( <sup>3</sup> )
Pennsylvania.....	9,433	5,913	East South Central.....	5,036	( <sup>3</sup> )	Texas.....	2,236	3,122
			Tennessee.....	4,190	3,646	Mountain.....	3,168	( <sup>3</sup> )
			West South Central.....	10,841	( <sup>3</sup> )	Pacific.....	20,344	( <sup>3</sup> )
			Texas.....	6,936	15,860	California.....	20,344	5,985
			West.....	8,773	12,531			
			Washington.....	2,338	5,169			
			California.....	5,520	6,505			

See footnotes at end of table.



TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
OTHER TRANSPORTATION EQUIPMENT (37992)			OTHER TRANSPORTATION EQUIPMENT (37992)—Continued			OTHER TRANSPORTATION EQUIPMENT (37992)—Continued		
United States, total.....	107,459	77,301				East South Central.....	5,199	1,837
New England.....	2,036	11,722	West North Central.....	17,375	12,674	Mississippi.....	1,130	(Z)
Middle Atlantic.....	9,762		Minnesota.....	1,030	2,341			
New York.....	7,103		Iowa.....	8,335	7,772	West South Central.....	10,544	2,713
East North Central.....	38,784	34,310	Missouri.....	3,433	(Z)	Oklahoma.....	1,418	(Z)
Ohio.....	10,503	7,949	Nebraska.....	1,772	1,121	Texas.....	7,242	2,016
Indiana.....	5,252	4,890	Kansas.....	2,669	(Z)			
Illinois.....	13,612	15,831				Mountain.....	3,661	9,102
Michigan.....	2,090	2,150	South Atlantic.....	5,171	4,943	Pacific.....	14,927	
Wisconsin.....	7,327	3,490	Florida.....	3,683	3,625	California.....	13,877	

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Shipments of less than \$1 million reported.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 37311, Pennsylvania, Ohio, Indiana, Wisconsin, Maryland, Kentucky, Tennessee, Alabama, Oregon, California; 37312, Maine, Massachusetts, Connecticut, New York, New Jersey, Illinois, Michigan, Wisconsin, Virginia, West Virginia, Alabama, Mississippi, Louisiana, Texas, Oregon, California; 37313, Massachusetts, Pennsylvania, Ohio, Maryland, Virginia, North Carolina, Florida, Alabama, Mississippi, Washington, California; 37314, Massachusetts, Connecticut, New Jersey, Pennsylvania, Maryland, North Carolina, South Carolina, Georgia, Florida, Alabama, Texas, Washington, Oregon; 37316, Ohio, Illinois, Wisconsin, Maryland, Virginia, Georgia, Kentucky, Alabama, Oregon; 37321, New Hampshire, New York, Pennsylvania, Illinois, Michigan, North Carolina, Tennessee, Louisiana, Texas, Washington; 37322, Pennsylvania, Missouri, Virginia, Arkansas; 37422, New York, New Jersey, Pennsylvania, Indiana, Illinois, Missouri, West Virginia, Kentucky, Alabama, Texas, Washington, Oregon; 37423, New York, New Jersey, Ohio, Wisconsin, Minnesota, Missouri, Kansas, West Virginia, Alabama, Texas; 37510, Massachusetts, Connecticut, Ohio, Illinois, Wisconsin, Nebraska, Georgia, Kentucky, Tennessee, Arkansas, Utah, California; 37991, New York, Maryland, Idaho, Colorado; 37992, Massachusetts, New York, New Jersey, Kentucky, Tennessee, Alabama, Arkansas, Utah.

<sup>2</sup>Represents value of work done.

<sup>3</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958		1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3731.—SHIP BUILDING AND REPAIRING				INDUSTRY 3732.—BOAT BUILDING AND REPAIRING			
	Materials, parts, containers, and supplies, total.....		(X)	612,467	(X)	669,205	(X)	167,519	(X)	161,665
	Mill shapes and forms (except castings):									
	Carbon steel:									
331011	Bar and bar shapes.....	Short tons..	47,265	7,937	32,051	5,442	914	158	923	197
331012	Sheet and strip.....	...do.....	28,248	5,365	28,941	4,860	1,514	247	7,815	1,642
331013	Plates.....	...do.....	477,616	69,318	571,048	84,493	2,966	496	2,019	422
331015	Structural shapes.....	...do.....	104,334	15,196	140,936	19,691	775	139	485	130
331017	Wire and wire products....	...do.....	3,411	1,465	3,515	1,275	214	133	375	181
331019	All other carbon steel mill shapes and forms.....	...do.....	23,915	5,148	27,096	6,574	1,145	244		
331020	Alloy steel (except stainless).	...do.....	17,606	9,449	34,746	18,397	83	43	206	163
331031	Stainless steel.....	...do.....	4,313	6,778	1,632	2,593	536	627		
335728	Copper and copper-base alloy: Bare wire (for electrical conduction only).....	1,000 lbs...	3,977	4,784	(NA)	(NA)	270	333	1,487	1,173
335790	Insulated wire and cable... (copper content)...	1,000 lbs. (copper content)...								
335102	Rod, bar, and mechanical wire.....	1,000 lbs...	688	818	7,268	6,444	102	64		
335123	Plate, sheet, and strip (including military cups and discs).....	...do.....	1,103	1,041			30	28		
335127	Pipe and tube.....	...do.....	5,770	4,448			325	412		
	Aluminum and aluminum-base alloy:									
335202	Sheet, plate and foil.....	...do.....	4,037	1,991	4,692	3,035	15,201	6,602	12,200	6,665
335205	Extruded shapes, rod, bar, pipe, etc.....	...do.....	2,073	2,399	1,694	1,040	3,177	1,895	2,219	1,339
335209	All other aluminum mill shapes and forms, wire, rolled rod, etc.....	...do.....					202	91		
	Castings (rough and semi-finished):									
332300	Steel <sup>1</sup> .....	Short tons..	5,605	4,318	10,448	6,278	179	94	149	96
336100	Aluminum and aluminum-base alloy <sup>1</sup> .....	1,000 lbs...	365	376	(NA)	(NA)	983	548	(NA)	(NA)
336200	Copper and copper-base alloy <sup>1</sup> .....	...do.....	5,900	5,760	5,980	4,689	916	1,105	681	1,096
	Engines:									
351920	Diesel and semidiesel <sup>1</sup> .....	Number.....	(NA)	8,149	449	10,336	572	2,865	451	2,702
351901	Gasoline and other carburetor <sup>1</sup> .....	...do.....	(NA)	645	331	336	18,616	15,089	10,578	8,064
362120	Integral horsepower motors and generators <sup>1</sup> .....	...do.....	2,740	5,438	4,000	6,872	174	206	(NA)	(NA)
242120	Dressed lumber.....	1,000 board feet.....	(NA)	2,563	(NA)	(NA)	17,444	4,204	(NA)	(NA)
243201	Plywood.....	...do.....	(X)	1,168	(X)	(NA)	(X)	6,933	(NA)	(NA)
282130	Thermoplastic resins.....	1,000 lbs. dry basis..	788	261	(NA)	(NA)	3,551	1,250	(NA)	(NA)
282140	Thermosetting resins.....	...do.....	(NA)	801	(NA)	(NA)	(NA)	7,209	(NA)	(NA)
322931	Glass fiber.....	1,000 lbs...	(NA)	435	(NA)	(NA)	(NA)	7,820	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	373,011	(X)	474,681	(X)	52,170	(X)	82,689
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....		(X)	73,405	(X)	12,169	(X)	56,514	(X)	55,106

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958		1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3741.—LOCOMOTIVES AND PARTS				INDUSTRY 3742.—RAILROAD AND STREET CARS			
	Materials, parts, containers, and supplies, total.....		(X)	233,289	(X)	205,480	(X)	575,511	(X)	301,258
	Mill shapes and forms (except castings):									
	Carbon steel:									
331011	Bars and bar shapes.....	Short tons..	11,054	1,860	10,616	1,746	159,902	23,747	48,230	6,764
331012	Sheet and strip.....	..do.....	28,785	4,818	17,944	2,954	225,927	32,435	75,030	11,139
331013	Plates.....	..do.....	58,653	8,485	44,242	5,813	554,031	83,698	294,296	38,854
331015	Structural shapes.....	..do.....	17,962	2,459	13,001	1,785	236,559	34,469	113,708	15,907
331017	Wire and wire products....	..do.....			9,888	2,475	1,495	489	657	232
331019	All other carbon steel mill shapes and forms.....	..do.....					62,858	13,465	45,728	10,120
331020	Alloy steel (except stainless)	..do.....	1,788	953	1,362	420	19,545	3,955	5,057	974
331031	Stainless steel.....	..do.....			406	591	1,641	1,845	408	579
335728	Copper and copper-base alloy: Bare wire (for electrical conduction only).....	1,000 lbs...	(D)	(D)	2,087	916	(D)	(D)	188	124
335790	Insulated wire and cable... (copper content)...	1,000 lbs. (copper content)...	(D)	(D)	4,491	2,985	(D)	(D)		
335102	Rod, bar and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs...	(D)	(D)	6,014	3,502	(D)	(D)		
335123	Plate, sheet, and strip, (including military cups and discs).....	..do.....	(D)	(D)			(D)	(D)		
335127	Pipe and tube.....	..do.....	(D)	(D)			(D)	(D)		
	Aluminum and aluminum-base alloy:									
335202	Sheet, plate and foil.....	..do.....	535	296	379	156	6,337	5,938	4,228	2,312
335205	Extruded shapes.....	..do.....					4,344	2,633	201	159
335209	All other aluminum mill shapes and forms.....	..do.....								
331051	Pig iron.....	Short tons..	(D)	(D)	(NA)	(NA)	(D)	(D)	13,956	849
999811	Iron and steel scrap.....	..do.....	-	-	(NA)	(NA)	35,721	865	25,815	921
	Castings (rough and semi-finished):									
332011	Iron (gray and malleable) <sup>1</sup> ...	..do.....	(D)	(D)	14,468	7,905	71,640	30,133	22,188	10,268
332300	Steel <sup>1</sup> .....	..do.....	(D)	(D)	17,583	9,802	95,809	40,426	76,390	27,064
336100	Aluminum and aluminum-base alloy <sup>1</sup> .....	1,000 lbs...	(D)	(D)	934	992	(D)	(D)	444	382
339100	Iron and steel forgings <sup>1</sup> .....	Short tons..	(D)	(D)	13,185	5,355	21,179	7,891	53,359	14,632
351920	Diesel and semidiesel engines <sup>1</sup> .....	Number.....	(D)	(D)	431	12,726	(D)	(D)	(NA)	(NA)
362120	Integral horsepower electric motors and generators (1 hp. and over) <sup>1</sup> .....	..do.....	(D)	(D)	4,000	20,196	(D)	(D)	(NA)	(NA)
356218	Bearings: Ball.....		(X)	(D)	(X)	2,887	(X)	15,168	(X)	3,221
356228	Roller.....									
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	213,117	(X)	103,432	(X)	270,791	(X)	154,968
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....		(X)	1,301	(X)	18,842	(X)	7,563	(X)	1,789

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3751.—MOTORCYCLES, BICYCLES AND PARTS			
	Materials, parts, containers, and supplies, total.....	.....	(X)	102,722	(X)	64,426
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	3,489	723	4,055	795
331012	Sheet and strip.....	..do.....	79,177	12,147	45,175	6,785
331017	Wire and wire products.....	..do.....	6,257	1,094	3,767	901
331013	Plates.....	..do.....	451	79		
331015	Structural shapes.....	..do.....				
331019	All other carbon steel mill shapes and forms.....	..do.....	7,270	1,688	3,136	835
331020	Alloy steel (except stainless).....	..do.....	1,199	319		
331031	Stainless steel.....	..do.....	44	46	581	273
	Copper and copper-base alloy:					
335728	Bare wire.....	1,000 lbs.....	-	-	(NA)	(NA)
335790	Insulated wire and cable.....	..do.....	-	-	(NA)	(NA)
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	..do.....	(D)	(D)	(NA)	(NA)
335123	Plate, sheet and strip (including military cups and discs).....	..do.....	-	-	(NA)	(NA)
335127	Pipe and tube.....	..do.....	-	-	(NA)	(NA)
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	..do.....			(NA)	(NA)
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	..do.....	206	101	(NA)	(NA)
335209	All other aluminum mill shapes and forms.....	..do.....			(NA)	(NA)
332300	Steel castings (rough and semifinished).....	Short tons.....	(D)	(D)	237	180
339100	Iron and steel forgings.....	..do.....	3,926	2,309	2,381	1,111
	Bearings:					
356218	Ball.....					
356228	Roller.....		(X)	904	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	76,326	(X)	47,691
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....		(X)	6,986	(X)	5,855
			INDUSTRY 3791.—TRAILER COACHES			
	Materials, parts, containers, and supplies, total.....	.....	(X)	471,898	(X)	318,095
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	5,263	1,565	6,226	1,292
331012	Sheet and strip.....	..do.....	14,643	3,349	32,976	7,981
331015	Structural shapes.....	..do.....	54,888	8,612	8,498	1,596
331019	All other carbon steel mill shapes and forms.....	..do.....	8,309	1,273	5,406	966
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....				
331029	All other alloy steel mill shapes and forms.....	..do.....	13,077	5,961	5,752	1,863
331031	Stainless steel.....	..do.....	-	-	(NA)	(NA)
	Copper and copper-base alloy:					
335790	Insulated wire and cable.....	1,000 lbs. (copper content).....	4,790	3,480	1,057	553
335728	Bare wire (electrical conduction).....	1,000 lbs.....	320	226		
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	..do.....	78	47	1,006	464
335123	Plate, sheet and strip (including military cups and discs).....	..do.....	-	-		
335127	Pipe and tube.....	..do.....	3,261	1,458		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	..do.....	63,702	25,377	17,640	3,057
335205	Extruded shapes.....	..do.....	8,119	2,407		
335209	All other aluminum mill shapes and forms.....	..do.....	1,993	2,176	1,126	490
	Castings (rough and semifinished):					
332300	Steel <sup>1</sup> .....	Short tons.....	988	504	4,632	448
336100	Aluminum and aluminum-base alloy <sup>1</sup> .....	1,000 lbs.....	364	264	289	154
	Bearings:					
356218	Ball.....					
356228	Roller.....		(X)	79	(NA)	(NA)

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3791.—TRAILER COACHES—Continued			
243201	Plywood.....	.....	(X)	50,414	(X)	(NA)
242120	Dressed lumber.....	1,000 board ft.	251,695	25,950	(NA)	(NA)
229501	Coated, impregnated, and laminated fabrics.....	1,000 linear yards.....	10,531	8,486	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	229,452	(X)	230,674
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....	.....	(X)	100,818	(X)	63,557
			INDUSTRY 3799.—TRANSPORTATION EQUIPMENT, N.E.C.			
	Materials, parts, containers, and supplies, total.....	.....	(X)	94,750	(X)	50,768
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	15,767	2,769	11,245	2,114
331012	Sheet and strip.....	..do.....	65,608	10,370	47,114	7,337
331013	Plates.....	..do.....	5,410	900	1,312	225
331015	Structural shapes.....	..do.....	7,681	1,295	10,931	1,895
331017	Wire and wire products.....	..do.....	2,404	844	1,809	382
331019	All other carbon steel mill shapes and forms.....	..do.....	8,085	1,887	3,248	762
331020	Alloy steel (except stainless).....	..do.....	780	307	1,467	239
331031	Stainless steel.....	..do.....	54	57		
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction only).....	1,000 lbs.....	-	-	(NA)	(NA)
335790	Insulated wire and cable.....	..do.....	127	57	(NA)	(NA)
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	..do.....	65	46	(NA)	(NA)
335123	Plate, sheet and strip, (including military cups and discs)...	..do.....			(NA)	(NA)
335127	Pipe and tube.....	..do.....	309	340	(NA)	(NA)
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	..do.....	3,259	1,554	329	145
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc..	..do.....	610	296	36	28
335209	All other aluminum mill shapes and forms.....	..do.....	57	24		
332300	Steel castings (rough and semifinished).....	Short tons.....	911	914	1,924	412
339100	Iron and steel forgings.....	..do.....	230	170	188	83
	Bearings:					
356218	Ball.....	.....	(X)	267	(X)	239
356228	Roller.....	.....	(X)	393		
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	35,390	(X)	23,882
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....	.....	(X)	36,870	(X)	13,025

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>In addition materials listed below were produced and incorporated into products at the same establishment:

Code	Item	Unit of measure	Industry 3731		Industry 3732		Industry 3741		Industry 3742		Industry 3791	
			1963	1958	1963	1958	1963	1958	1963	1958	1963	1958
	Castings (rough and semi-finished):											
332011	Iron (gray and malleable).....	Short tons...	(NA)	(NA)	(X)	(NA)	(NA)	(D)	11,813	(D)	(X)	(X)
332300	Steel.....	.....do.....	(D)	3,819	-	(NA)	(NA)	(D)	(D)	(D)	-	(D)
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	(NA)	(NA)	-	(NA)	(NA)	(D)	(D)	(D)	-	(D)
336200	Copper and copper-base alloy...	.....do.....	-	1,131	-	(NA)	(X)	(D)	(X)	(D)	(X)	(X)
339100	Iron and steel forgings.....	Short tons...	(NA)	(NA)	(X)	(NA)	(NA)	(NA)	(D)	(NA)	(X)	(X)
351920	Diesel and semidiesel engines...	Number.....	(NA)	(NA)	(NA)	(NA)	(NA)	(D)	(NA)	(NA)	(X)	(X)
351901	Gasoline and other carburetor engines.....	.....do.....	(NA)	(NA)	(D)	1,368	(X)	(X)	(X)	(X)	(X)	(X)
362120	Integral horsepower electric motors and generators (1 hp. and over).....	.....do.....	(NA)	(NA)	(NA)	(NA)	(NA)	(D)	(NA)	(NA)	(X)	(X)

<sup>2</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

Item	Ship building and repairing (SIC 3731)	Boat building and repairing (SIC 3732)	Locomotive and parts (SIC 3741)	Railroad and street cars (SIC 3742)	Motorcycles, bicycles, and parts (SIC 3751)	Trailer coaches (SIC 3791)	Transportation equipment, n.e.c. (SIC 3799)
Total cost of purchased fuels and electric energy.....\$1,000..	17,067	2,998	2,562	6,569	1,374	1,813	962
Total cost of purchased fuels.....do....	6,021	1,163	1,284	3,611	617	894	384
Bituminous coal, lignite, and anthracite:							
Quantity.....1,000 short tons..	62	19	141	137	(S)	(S)	(S)
Cost.....\$1,000..	604	111	811	946	(S)	(S)	(S)
Coke and breeze:							
Quantity.....1,000 short tons..	3	-	-	(S)	-	-	-
Cost.....\$1,000..	65	-	-	(S)	-	-	-
Fuel oil (distillate and residual):							
Quantity.....1,000 barrels of 42 gallons..	906	55	108	251	29	(S)	14
Cost.....\$1,000..	2,655	279	287	1,060	117	(S)	71
Gas (natural, manufactured, still, blast furnace, and coke oven):							
Quantity.....million cu.ft..	1,974	475	263	2,605	721	372	163
Cost.....\$1,000..	1,682	291	185	1,304	417	213	115
Other fuels.....do....	1,015	482	(S)	184	(S)	219	70
Electric energy:							
Purchased:							
Quantity.....million kw.-hrs..	949	94	120	232	65	45	29
Cost.....\$1,000..	11,046	1,835	1,278	2,958	757	919	578
Generated less sold.....million kw.-hrs..	17	-	83	18	-	-	-
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	981	77	120	379	55	-	-
Prime movers, total.....do....	195	15	36	68	3	-	-
Driving generators.....do....	55	4	27	18	-	-	-
Not driving generators.....do....	140	11	9	50	3	-	-
Electric motors, total.....do....	796	62	164	333	53	-	-
Driven by purchased energy.....do....	786	62	84	311	53	-	-
Driven by energy generated at establishment.....do....	9	-	80	22	-	-	-
Aggregate horsepower per 100 production workers.....	1,043	409	1,123	1,814	752	-	-

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3731-	SHIP BUILDING AND REPAIRING										
	Entire industry.....	334	114,649	782,299	96,527	193,512	610,250	<sup>1</sup> 1,009,690	670,075	<sup>2</sup> 1,679,765	24,477
	Establishments with—										
	90% or more specialization..	279	99,099	685,543	83,894	169,486	539,163	<sup>1</sup> 894,654	551,100	<sup>2</sup> 1,445,754	20,388
	75-89% specialization.....	14	3,769	22,372	3,224	6,170	17,917	<sup>1</sup> 29,376	23,228	<sup>2</sup> 52,604	1,282
37311	Nonpropelled ships (barges, etc.), new construction (primary product class of estab.).....	25	5,320	33,467	4,459	8,840	25,619	<sup>1</sup> 42,637	49,983	<sup>1</sup> 92,620	987
	Establishments with—										
	90% or more specialization....	10	408	2,272	363	704	2,026	<sup>1</sup> 3,715	2,689	<sup>1</sup> 6,404	121
	75-89% specialization.....	4	1,017	5,873	866	1,690	4,703	<sup>1</sup> 8,276	10,636	<sup>2</sup> 18,912	200
37312	Self-propelled United States military ships, new construction (primary product class of estab.)	21	58,673	425,127	49,711	101,743	327,680	<sup>1</sup> 519,681	336,488	<sup>2</sup> 856,169	15,031
	Establishments with—										
	90% or more specialization....	7	8,447	58,624	7,752	15,066	51,313	<sup>1</sup> 74,976	55,036	<sup>2</sup> 130,012	1,371
37313	Self-propelled nonmilitary ships, new construction (primary product class of estab.).....	47	18,115	121,950	14,015	29,204	90,206	<sup>1</sup> 15,053	124,838	<sup>2</sup> 279,891	2,729
	Establishments with—										
	75% and over.....	27	5,278	34,181	4,205	8,249	25,491	<sup>1</sup> 48,331	36,881	<sup>2</sup> 88,748	677
37314	Ship repair, United States military (primary product class of estab.).....	41	11,754	78,770	10,000	19,479	64,356	<sup>1</sup> 114,226	73,821	<sup>2</sup> 188,047	1,455
	Establishments with—										
	90% or more specialization....	10	1,505	10,132	1,217	2,476	8,201	<sup>1</sup> 14,632	11,046	<sup>1</sup> 25,678	53
	75-89% specialization.....	12	3,173	22,627	2,778	5,433	18,800	<sup>1</sup> 32,219	22,566	<sup>2</sup> 54,785	526
37316	Repair of nonmilitary ships (primary product class of estab.)....	123	19,769	118,015	17,481	32,619	98,428	<sup>1</sup> 170,497	80,847	<sup>2</sup> 257,344	3,933
	Establishments with—										
	90% or more specialization....	74	5,596	34,996	4,909	9,518	28,981	<sup>1</sup> 52,647	19,544	<sup>2</sup> 72,191	1,835
	75-89% specialization.....	15	5,046	32,444	4,135	7,587	25,676	<sup>1</sup> 48,413	21,385	<sup>2</sup> 69,798	416
3732-	BOAT BUILDING AND REPAIRING										
	Entire industry.....	1,626	24,861	116,140	20,867	42,011	91,443	183,059	183,207	360,208	13,472
	Establishments with—										
	90% or more specialization..	1,503	21,838	100,367	18,391	36,723	79,309	<sup>1</sup> 58,198	159,346	<sup>1</sup> 313,663	11,755
	75-89% specialization.....	20	1,284	5,671	988	2,080	3,974	8,180	11,012	17,967	878
37321	Inboard motorboats (all types) (primary product class of estab.)	98	7,191	36,172	6,124	11,954	29,473	58,078	62,702	118,104	1,937
	Establishments with—										
	90% or more specialization....	54	5,079	25,308	4,406	8,511	21,187	42,018	43,178	84,077	1,034
	75-89% specialization.....	19	1,397	7,279	1,107	2,258	5,520	10,291	13,482	22,229	266
37322	Outboard motorboats (all types including prefabricated kits) (primary product class of estab.)	130	6,804	30,122	5,463	11,052	21,587	43,972	59,970	102,287	4,590
	Establishments with—										
	90% or more specialization....	74	2,256	9,242	1,795	3,570	6,740	13,926	18,279	31,965	610
	75-89% specialization.....	26	1,590	7,026	1,239	2,400	4,938	10,556	15,025	25,736	2,736
37323	All other boats (sailboats, rowboats, canoes, etc.) (primary product class of estab.).....	80	2,130	10,216	1,805	3,917	7,710	19,101	16,017	34,577	1,486
	Establishments with—										
	90% or more specialization....	51	1,052	5,078	898	2,020	3,923	9,573	7,387	16,790	976
	75-89% specialization.....	11	686	3,224	592	1,242	2,471	6,110	5,807	11,816	355
37324	Boat repair—military and non-military (primary product class of estab.).....	168	3,612	19,041	3,031	5,912	14,941	28,563	15,075	43,829	932
	Establishments with—										
	90% or more specialization....	123	2,564	13,959	2,159	4,091	10,978	20,390	10,639	31,209	749
	75-89% specialization.....	17	362	1,800	299	605	1,430	2,545	1,244	3,613	67

See footnotes at end of table.

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3742-	RAILROAD AND STREET CARS										
	Entire industry.....	78	30,742	201,999	24,254	47,246	150,135	355,230	591,023	927,184	10,877
	Establishments with—										
	90% or more specialization.	62	22,741	149,482	18,427	36,152	114,988	267,335	448,979	704,446	9,193
37422	Freight train cars, new (primary product class of estab.).....	24	17,252	111,780	14,251	27,684	88,862	201,881	441,819	593,657	5,423
	Establishments with—										
	90% or more specialization...	14	11,322	74,606	9,594	19,262	61,385	138,305	264,576	389,852	4,055
3751-	MOTORCYCLES, BICYCLES, AND PARTS										
	Entire industry.....	88	9,662	48,425	7,912	15,152	34,398	82,245	112,157	192,851	3,152
	Establishments with—										
	90% or more specialization.	73	5,470	28,376	4,298	8,325	20,029	43,916	58,349	102,190	1,896
	75-89% specialization.....	5	998	4,860	783	1,449	3,355	8,587	13,585	22,110	99
3799-	TRANSPORTATION EQUIPMENT, N.E.C.										
	Entire industry.....	522	8,032	37,547	6,652	13,183	27,788	68,823	99,379	167,375	3,710
	Establishments with—										
	90% or more specialization.	457	5,801	26,234	4,799	9,521	19,700	47,986	73,994	121,568	2,867
	75-89% specialization.....	14	648	3,341	533	1,132	2,246	4,962	6,957	11,694	197
37991	Automobile trailers, excluding housing type coaches (primary product class of estab.).....	80	2,874	14,293	2,440	4,878	10,949	26,283	42,572	68,803	1,391
	Establishments with—										
	90% or more specialization...	63	1,995	9,947	1,709	3,407	7,817	17,695	31,911	49,701	1,067
	75-89% specialization.....	7	383	1,859	314	659	1,260	2,735	4,004	6,602	164
37992	Other transportation equipment (primary product class of estab.).....	197	3,857	18,781	3,110	6,200	13,189	35,474	45,142	79,969	1,575
	Establishments with—										
	90% or more specialization...	158	2,391	11,558	1,901	3,847	8,116	22,312	29,948	51,890	1,117
	75-89% specialization.....	12	283	1,459	238	460	951	2,320	3,317	5,567	42

n.e.c. Not elsewhere classified.

<sup>1</sup>See footnote 1, table 1.<sup>2</sup>Represents value of work done rather than value of shipments.



TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
INDUSTRY 3731.—SHIP BUILDING AND REPAIRING								
Ferrous foundry.....	3	2	-	1	(D)	(D)	-	(D)
Nonferrous foundry (except die casting).....	6	-	3	3	229	-	22	207
Forging--presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	24	18	4	2	124	36	(D)	(D)
Heat treating of metals.....	24	15	7	2	877	(D)	(D)	(D)
Machine shop.....	138	48	47	43	4,827	73	492	4,262
Tool and die shop.....	13	7	4	2	156	13	(D)	(D)
Foundry pattern shop.....	16	9	5	2	101	9	(D)	(D)
Plate or structural fabrication.....	107	25	20	62	13,403	45	225	13,133
Stamping, blanking and forming of metals.....	19	9	5	5	793	12	42	739
Painting, lacquering and enameling on metals.....	78	28	24	26	2,413	44	232	2,137
Plastics molding.....	6	1	4	1	45	(D)	(D)	(D)
INDUSTRY 3732.—BOAT BUILDING AND REPAIRING								
Ferrous foundry.....	-	-	-	-	-	-	-	-
Nonferrous foundry (except die casting).....	2	1	1	-	(D)	(D)	(D)	-
Forging--presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	4	3	1	-	12	(D)	(D)	-
Heat treating of metals.....	4	4	-	-	6	6	-	-
Machine shop.....	98	68	25	5	459	124	180	155
Tool and die shop.....	11	8	2	1	74	14	(D)	(D)
Foundry pattern shop.....	18	17	1	-	35	(D)	(D)	-
Plate or structural fabrication.....	48	31	12	5	365	71	113	181
Stamping, blanking and forming of metals.....	28	20	6	2	246	50	(D)	(D)
Painting, lacquering and enameling on metals.....	71	54	13	4	329	103	119	107
Plastics molding.....	49	15	19	15	992	30	193	769
INDUSTRY 3741.—LOCOMOTIVES AND PARTS								
Ferrous foundry.....	-	-	-	-	-	-	-	-
Nonferrous foundry (except die casting).....	-	-	-	-	-	-	-	-
Forging--presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	-	-	-	-	-	-	-	-
Automatic screw machine department.....	2	-	2	-	(D)	-	(D)	-
Machine shop.....	10	3	1	6	2,014	(D)	(D)	1,999
Tool and die shop.....	5	-	1	4	452	-	(D)	(D)
Plate or structural fabrication.....	5	1	-	4	1,581	(D)	-	(D)
Stamping, blanking and forming of metals.....	7	-	3	4	275	-	29	246
Painting, lacquering and enameling on metals.....	7	4	-	3	170	5	-	165
Assembly of product.....	11	4	3	4	1,855	11	33	1,811
INDUSTRY 3742.—RAILROAD AND STREET CARS								
Ferrous foundry.....	4	-	-	4	864	-	-	864
Nonferrous foundry (except die casting).....	1	-	-	1	(D)	-	-	(D)
Forging--presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	23	2	13	8	596	(D)	(D)	434
Automatic screw machine department.....	3	-	1	2	56	-	(D)	(D)
Machine shop.....	34	8	11	15	2,332	20	131	2,181
Tool and die shop.....	23	5	11	7	510	12	132	366
Plate or structural fabrication.....	33	3	4	26	3,233	2	33	3,198
Stamping, blanking and forming of metals.....	31	5	11	15	1,317	8	130	1,179
Painting, lacquering and enameling on metals.....	37	15	7	15	1,330	25	72	1,233
Assembly of product.....	40	5	9	26	8,225	8	101	8,116
INDUSTRY 3751.—MOTORCYCLES, BICYCLES AND PARTS								
Electroplating and other plating.....	11	1	5	5	279	(D)	(D)	243
Automatic screw machine department.....	7	2	2	3	124	(D)	(D)	98
Machine shop.....	17	6	8	3	429	13	88	328
Tool and die shop.....	14	6	5	3	256	10	56	190
Stamping, blanking and forming of metals.....	24	5	6	13	871	7	66	798
Painting, lacquering and enameling on metals.....	26	11	9	6	482	21	93	368
Assembly of product.....	28	4	7	17	1,614	7	49	1,558

See footnotes at end of table.

TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963—Continued

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3791.—TRAILER COACHES							
Ferrous foundry.....	2	2	-	-	-	-	-	-
Nonferrous foundry (except die casting).....	1	1	-	-	(D)	(D)	-	-
Nonferrous die casting.....	-	-	-	-	-	-	-	-
Forging--presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	-	-	-	-	-	-	-	-
Electroplating and other plating.....	-	-	-	-	-	-	-	-
Galvanizing and other hot dip coating.....	-	-	-	-	-	-	-	-
Heat treating of metals.....	-	-	-	-	-	-	-	-
Automatic screw machine department.....	-	-	-	-	-	-	-	-
Machine shop.....	2	2	-	-	(D)	(D)	-	-
Tool and die shop.....	1	1	-	-	(D)	(D)	-	-
Foundry pattern shop.....	1	1	-	-	(D)	(D)	-	-
Plate or structural fabrication.....	20	11	8	1	133	30	(D)	(D)
Stamping, blanking and forming of metals.....	34	17	15	2	443	29	(D)	(D)
Painting, lacquering and enameling on metals.....	43	35	7	1	378	60	(D)	(D)
Assembly of product.....	110	33	16	61	5,873	39	161	5,673
	INDUSTRY 3799.—TRANSPORTATION EQUIPMENT, N.E.C.							
Ferrous foundry.....	-	-	-	-	-	-	-	-
Nonferrous foundry (except die casting).....	-	-	-	-	-	-	-	-
Nonferrous die casting.....	-	-	-	-	-	-	-	-
Forging--presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	-	-	-	-	-	-	-	-
Electroplating and other plating.....	1	1	-	-	(D)	(D)	-	-
Galvanizing and other hot dip coating.....	-	-	-	-	-	-	-	-
Heat treating of metals.....	-	-	-	-	-	-	-	-
Automatic screw machine department.....	5	4	1	-	12	(D)	(D)	-
Machine shop.....	46	30	12	4	307	54	90	163
Tool and die shop.....	25	18	6	1	112	31	56	25
Foundry pattern shop.....	1	1	-	-	(D)	(D)	-	-
Plate or structural fabrication.....	-	-	-	-	-	-	-	-
Stamping, blanking and forming of metals.....	58	31	14	13	572	54	113	405
Painting, lacquering and enameling on metals.....	81	67	13	1	243	101	(D)	(D)
Assembly of product.....	91	34	32	25	1,391	67	280	1,044
Shipping department, including packing and crating...	1	-	1	-	(D)	-	(D)	-

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

Item	Industry						
	3731	3732	3741	3742	3751	3791	3799
Total number of establishments in the industry.....	334	1,626	24	78	88	413	522
Number of establishments which reported one or more of the specified operations.....	175	233	17	52	33	147	117
Percent of industry production workers in these establishments.....	85-90	50-55	95-100	95-100	90-95	60-65	50-55
Number of establishments which reported "none" of the operations apply	48	139	0	6	4	80	24
Percent of industry production workers in these establishments.....	0-5	10-15	0	0-5	0-5	20-25	5-10
Percent of industry production workers in establishments which completed the metalworking operations inquiry.....	90-95	65-70	95-100	95-100	90-95	80-85	60-65

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.





## Instruments and Related Products

- 38A Instruments; surgical, dental and ophthalmic goods
- 38B Photographic equipment; clocks, watch and watchcases

This major group covers establishments primarily engaged in manufacturing mechanical measuring, engineering, laboratory, and scientific research instruments; optical instruments and lenses; surgical, medical, and dental instruments, equipment and supplies; ophthalmic goods; photographic equipment and supplies; and, watches and clocks. Dental laboratories making dentures and artificial teeth to order for the dental profession, and establishments grinding ophthalmic lenses on an individual prescription basis, are classified in trade industries.

During the period 1958 to 1963, reports received from some large establishments indicated a change from the manufacture primarily of such individual instruments as those used for indicating air speed, rate-of-climb, angle-of-yaw and similar flight characteristics, and gyroscopes which are sold separately, to the manufacture primarily of complete instrumentation systems for navigation, guidance, check-out, etc. The major impact of this change has been on the classification of products and, consequently, the SIC coding of these large establishments. This change in reporting was brought to light by the initiation, by the Census Bureau, of detailed commodity surveys in the fields of electronic products and instrumentation. The electronic and associated products report (MA-36N) was started covering the year 1961 and the instruments series (MA-38B) was broadened for 1963 to encompass most types of instruments

following an introductory report for 1961 and 1962 covering industrial process instruments and test and measuring equipment. Annual statistics from both reports are published in the Current Industrial Reports Series.

In both the 1958 Census of Manufactures and the Annual Survey of Manufactures from 1959 through 1962, the classification of systems was not sufficiently spelled out in the product inquiries of these programs, especially at the 5-digit product class level. However, with the introduction, in the MA-36N and MA-38B surveys, of detailed 7-digit product information which itself is used to build up to broader 5-digit product class totals, these totals, although they should be the same as those reported on Form MA-100 (Annual Survey of Manufactures), have differed. The respondents affected have identified the proportion of earlier years' output which consisted of systems rather than instruments as such, which was the manner in which the items were originally reported.

In view of the above, the annual data for 1958-1962 have been revised. Because of the shift in recent years from instruments which are classified in industry 3811 to complete systems which are classified in industry 3662, the year-to-year changes are of dubious validity for the industries considered separately. The two industries taken in combination however, would yield significant measures of activity in the general area.



# INSTRUMENTS AND RELATED PRODUCTS: MAJOR GROUP 38

Value Added by Manufacture by State: 1963

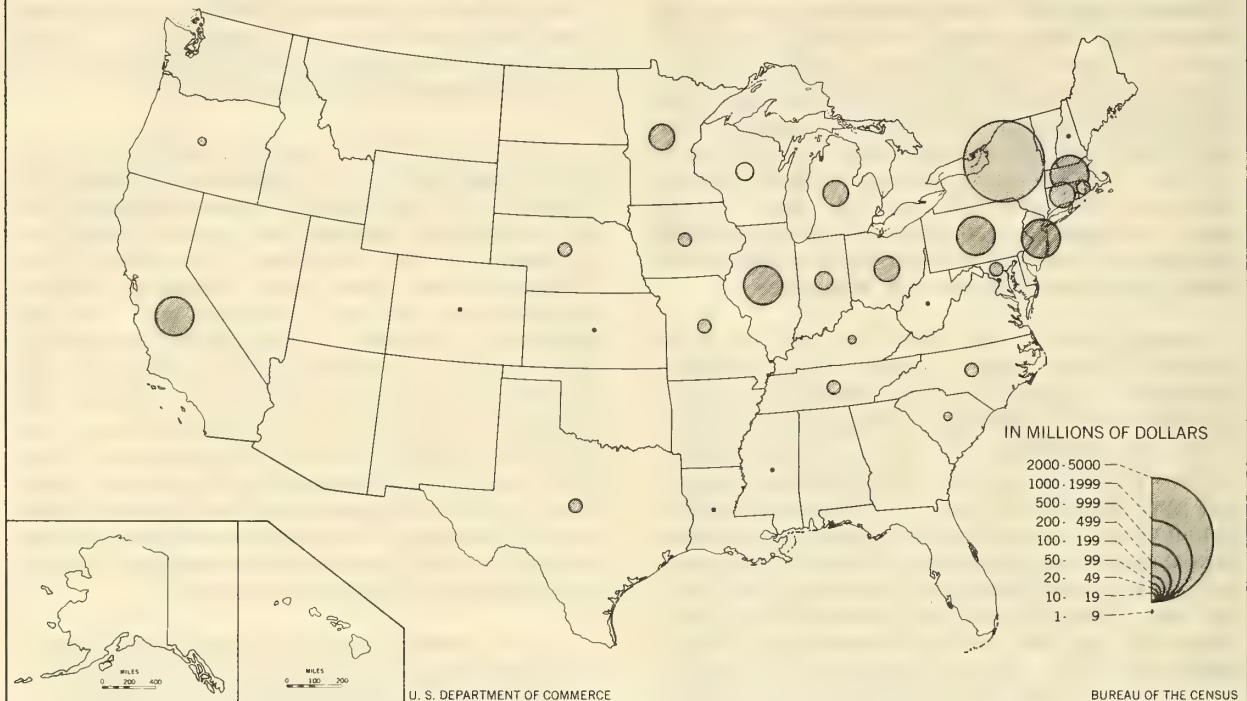


TABLE 1. General Statistics: 1963 and Earlier Years

Year and item	Establishments		All employees <sup>1</sup>		Production workers			Value added by manufacture, adjusted <sup>2</sup>	Cost of materials <sup>3</sup>	Value of shipments <sup>3</sup>	Capital expenditures, new <sup>4</sup>
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)				
ALL MANUFACTURING ESTABLISH- MENTS, TOTAL:											
1963 . . . . .	4 028	1 391	316 443	2 010 423	208 448	416 555	1 100 718	3 922 131	2 171 108	6 117 889	191 865
1958 . . . . .	3 584	1 225	293 787	1 564 037	197 985	389 569	897 467	2 781 017	(NA)	4 418 690	114 608
1954 <sup>2</sup> . . . . .	(NA)	(NA)	277 895	1 234 016	195 597	391 403	759 459	2 130 958	(NA)	(NA)	94 008
ADMINISTRATIVE AND AUXILIARY UNITS:											
1963 <sup>5</sup> . . . . .	79	48	10 991	97 951	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1958 <sup>6</sup> . . . . .	66	36	7 436	54 512	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1954 <sup>6</sup> . . . . .	(NA)	(NA)	5 309	33 694	(X)	(X)	(X)	(X)	(X)	(X)	(X)
OPERATING MANUFACTURING ESTABLISHMENTS:											
1963 <sup>7</sup> . . . . .	3 949	1 343	305 452	1 912 472	208 448	416 555	1 100 718	3 992 131	2 171 108	6 117 889	191 865
1958 <sup>7</sup> . . . . .	3 518	1 189	286 351	1 509 525	197 985	389 569	897 467	2 781 017	(NA)	4 418 690	114 608
1954 <sup>7</sup> . . . . .	3 141	984	272 586	1 200 322	195 597	391 403	759 459	2 130 958	(NA)	(NA)	94 008
OPERATING MANUFACTURING ESTABLISHMENTS:											
1962 <sup>7 8</sup> . . . . .	(NA)	(NA)	308 487	1 871 008	206 383	415 611	1 051 413	3 690 006	2 049 916	5 674 315	177 604
1961 <sup>7 8</sup> . . . . .	(NA)	(NA)	316 330	1 908 435	208 233	415 140	1 036 799	3 573 976	2 054 969	5 607 429	178 665
1960 <sup>7 8</sup> . . . . .	(NA)	(NA)	325 576	1 907 606	217 964	437 056	1 066 704	3 641 114	(NA)	(NA)	162 359
1959 <sup>7 8</sup> . . . . .	(NA)	(NA)	310 534	1 782 725	214 415	432 421	1 032 504	3 410 054	(NA)	(NA)	144 976
1957 <sup>8</sup> . . . . .	(NA)	(NA)	307 207	1 570 906	211 968	428 000	946 647	2 872 262	(NA)	(NA)	145 691
1956 <sup>8</sup> . . . . .	(NA)	(NA)	296 701	1 458 264	211 135	426 332	896 525	2 690 477	(NA)	(NA)	145 053
1955 <sup>8</sup> . . . . .	(NA)	(NA)	282 697	1 295 200	202 447	406 402	813 731	2 366 783	(NA)	(NA)	106 402
1953 <sup>8</sup> . . . . .	(NA)	(NA)	285 469	1 232 467	212 102	433 752	823 564	2 169 354	(NA)	(NA)	90 272
1952 <sup>8</sup> . . . . .	(NA)	(NA)	278 531	1 179 955	205 384	420 014	778 584	1 994 805	(NA)	(NA)	(NA)
1951 <sup>8</sup> . . . . .	2 686	(NA)	253 081	1 001 301	189 659	389 773	670 732	1 608 236	(NA)	(NA)	85 004
1950 <sup>8</sup> . . . . .	2 697	(NA)	226 375	812 468	169 447	341 716	531 761	1 388 930	(NA)	(NA)	64 446
1949 <sup>8</sup> . . . . .	(NA)	(NA)	204 823	682 733	156 221	305 469	447 118	1 122 649	(NA)	(NA)	57 944
1947 <sup>9</sup> . . . . .	2 605	(NA)	244 872	706 055	194 303	389 940	502 168	1 140 499	(NA)	(NA)	56 000
1939 <sup>9</sup> . . . . .	1 292	(NA)	(NA)	(NA)	84 867	(NA)	107 704	333 409	(NA)	(NA)	(NA)
1937 <sup>10</sup> . . . . .	1 026	(NA)	(NA)	(NA)	83 814	(NA)	112 732	298 304	(NA)	(NA)	(NA)
1935 <sup>11</sup> . . . . .	1 000	(NA)	83 744	108 306	67 530	(NA)	74 242	200 113	(NA)	(NA)	(NA)
1933 . . . . .	830	(NA)	(NA)	(NA)	49 564	(NA)	46 219	142 434	(NA)	(NA)	(NA)
1931 . . . . .	1 029	(NA)	(NA)	(NA)	59 892	(NA)	66 423	200 739	(NA)	(NA)	(NA)
1929 <sup>12</sup> . . . . .	1 109	(NA)	98 061	148 996	81 905	(NA)	107 890	300 866	(NA)	(NA)	(NA)
1927 . . . . .	1 108	(NA)	(NA)	(NA)	78 946	(NA)	102 876	273 695	(NA)	(NA)	(NA)
1925 . . . . .	1 286	(NA)	88 011	124 355	73 033	(NA)	91 040	263 078	(NA)	(NA)	(NA)
1923 <sup>14</sup> . . . . .	1 593	(NA)	93 189	127 340	76 639	(NA)	91 754	244 873	(NA)	(NA)	(NA)
1921 . . . . .	1 592	(NA)	82 931	108 794	67 218	(NA)	77 786	188 781	(NA)	(NA)	(NA)
1919 . . . . .	2 037	(NA)	108 711	124 837	90 615	(NA)	93 001	235 639	(NA)	(NA)	(NA)
1914 . . . . .	1 572	(NA)	70 958	50 017	59 850	(NA)	35 848	97 644	(NA)	(NA)	(NA)
1909 <sup>15</sup> . . . . .	1 239	(NA)	(NA)	(NA)	50 848	(NA)	28 071	73 127	(NA)	(NA)	(NA)
1904 . . . . .	1 027	(NA)	46 377	26 297	41 907	(NA)	21 292	46 325	(NA)	(NA)	(NA)
1899 . . . . .	1 101	(NA)	34 847	18 196	32 060	(NA)	15 247	31 637	(NA)	(NA)	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not applicable.

<sup>1</sup>The figures for 1939 through 1963 include data for employees of manufacturing establishments who are engaged in distribution and construction work. The extent to which data for such employees are included in the figures for earlier years is not known.

<sup>2</sup>For the period 1954 to 1963, figures represent adjusted value added by manufacture and for earlier years, unadjusted value added. Adjusted value added is equal to value of shipments (including resales of finished products) less cost of finished products, materials, supplies, fuel, electric energy and contract work, plus the net change in the value of finished products and work-in-process inventories between the beginning and end of the year, without adjustment for price changes. Unadjusted value added is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. See Introduction, "Value Added by Manufacture."

<sup>3</sup>The total value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry classification. For a more complete explanation, see Introduction.

<sup>4</sup>The figures for 1958 to 1963 include expenditures for plants under construction and not yet in operation.

<sup>5</sup>The figures for 1947, 1954, and later years include establishments primarily engaged in the manufacture of automatic temperature controls.

<sup>6</sup>In addition to data for operating establishments, figures for employment and payroll for manufacturing central administrative offices and auxiliary units are shown for the years 1949 to 1953 in the annual survey of manufacturing volumes. Data for these units are not available for the years 1955 to 1957, 1959 to 1962, or prior to 1949.

<sup>7</sup>Figures for 1958 to 1963 for operating manufacturing establishments are not strictly comparable with prior years due to revisions of the Standard Industrial Classification System. Prior to 1958, data for the following commodities were excluded: laboratory precision balances; laboratory furniture; revolution counters; operating room and other hospital furniture; surgical corsets; and hearing aids. Establishments primarily engaged in the manufacture of sanitary napkins and tampons are included prior to 1958.

<sup>8</sup>These figures represent estimates derived from a representative sample of manufac-

turing establishments canvassed in the annual survey of manufactures. These estimates, consequently, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>9</sup>The figures for 1939 and later years are not strictly comparable with those for earlier years. Statistics for 1939 and later years (a) include data for establishments primarily engaged in manufacture of thermostats and gauges, and (b) exclude data for establishments primarily engaged in the manufacture of time-recording stamps and machines. Value added by manufacture for 1939 on a basis strictly comparable with 1937 was \$314.1 million.

<sup>10</sup>The figures for 1937 to 1954 include, whereas those for earlier years exclude, data for establishments primarily engaged in the manufacture of certain mechanical measuring instruments. Value added by manufacture for 1937, excluding data for these establishments and on a basis comparable with 1935, was \$294.5 million.

<sup>11</sup>The figures for 1935 to 1954 include, whereas those for 1933 and earlier years exclude, data for establishments primarily engaged in manufacture of certain dental equipment and supplies (chairs, cabinets, and electrical devices).

<sup>12</sup>The figures for 1929 to 1954 exclude, whereas those for earlier years include, data for establishments primarily engaged in manufacture of gas machines. Value added by manufacture for 1929, including data for these establishments and on a basis comparable with 1927, was \$306.3 million.

<sup>13</sup>The figures for 1927 to 1954 exclude, whereas those for earlier years include, data for dental laboratories operating on a custom basis. Value added by manufacture for 1927 including data for these laboratories and on a basis comparable with 1925, was \$280.3 million.

<sup>14</sup>The figures for 1899 to 1923 include, whereas those for later years exclude, data for establishments primarily engaged in grinding lenses for spectacles and eyeglasses to individual prescription.

<sup>15</sup>The figures for 1899 to 1909 exclude, whereas those for 1914 and later years include, data for establishments primarily engaged in manufacture of motion-picture machines. Value added by manufacture for 1914, excluding data for such establishments, was \$96.4 million.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Code	Industry group and geographic area	1963								1958		
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
									(number)	(number)	(number)	(\$1,000)
38	INSTRUMENTS & RELATED PRODUCTS,TOTAL	3 949	1 343	305 452	1 912 472	208 448	416 555	1 100 718	3 992 131	191 865	286 351	2 781 017
	NORTHEAST . . . . .	1 681	645	167 167	1 103 522	110 993	220 610	610 831	2 360 230	122 054	173 971	1 748 812
	NEW ENGLAND . . . . .	392	187	50 122	290 259	33 621	67 305	163 882	569 202	32 482	42 983	370 272
	MAINE . . . . .	4	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	NEW HAMPSHIRE . . . . .	16	6	664	3 135	509	1 038	1 939	5 592	247	267	1 917
	VERMONT . . . . .	9	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	MASSACHUSETTS . . . . .	208	96	28 431	169 452	18 566	37 235	92 188	343 078	22 251	21 012	210 045
	RHODE ISLAND . . . . .	39	17	3 467	16 838	2 716	5 397	11 673	27 844	1 171	2 866	19 320
	CONNECTICUT . . . . .	116	64	16 690	96 888	11 146	22 219	55 164	182 205	8 698	18 195	132 626
	MIDDLE ATLANTIC . . . . .	1 289	458	117 045	813 263	77 372	153 305	446 949	1 791 028	89 572	130 988	1 378 540
	NEW YORK . . . . .	791	256	75 499	547 830	49 050	96 796	295 596	1 259 704	65 405	80 839	922 566
	NEW JERSEY . . . . .	252	89	17 259	116 616	11 038	22 143	58 922	224 699	14 476	26 885	248 277
	PENNSYLVANIA . . . . .	246	113	24 287	148 817	17 284	34 366	92 431	306 625	9 691	23 264	207 697
	NORTH CENTRAL . . . . .	1 029	367	88 103	528 853	61 213	122 166	317 690	1 101 112	44 019	76 157	704 320
	EAST NORTH CENTRAL . . . . .	823	301	71 992	433 192	50 185	99 674	261 465	901 582	37 774	57 999	540 389
	OHIO . . . . .	186	67	11 207	61 809	7 125	13 896	32 311	111 310	6 214	9 606	77 393
	INDIANA . . . . .	70	23	4 638	23 841	3 605	7 127	16 575	94 804	3 493	3 459	31 417
	ILLINOIS . . . . .	352	147	36 592	220 951	25 031	49 835	127 400	474 806	17 046	30 962	302 905
	MICHIGAN . . . . .	145	41	13 304	91 134	10 168	20 279	63 788	148 352	8 068	8 746	83 176
	WISCONSIN . . . . .	70	23	6 251	35 457	4 256	8 537	21 391	72 310	2 953	5 226	45 981
	WEST NORTH CENTRAL . . . . .	206	66	16 111	95 661	11 028	22 492	56 225	199 530	6 245	18 158	163 931
	MINNESOTA . . . . .	64	18	8 348	53 070	5 335	10 969	29 462	103 510	2 477	12 223	117 343
	IOWA . . . . .	29	9	2 447	14 948	1 514	3 175	7 712	26 867	1 358	1 749	11 781
	MISSOURI . . . . .	80	31	3 667	20 658	2 747	5 421	13 369	44 485	1 116	3 227	27 606
	NORTH DAKOTA . . . . .	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	SOUTH DAKOTA . . . . .	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	NEBRASKA . . . . .	17	6	1 340	5 487	1 225	2 528	4 910	22 593	1 257	(D)	(D)
	KANSAS . . . . .	13	2	301	1 469	201	387	749	1 993	34	(D)	(D)
	SOUTH . . . . .	495	142	23 777	108 121	18 454	36 829	70 593	219 232	11 160	17 219	215 627
	SOUTH ATLANTIC . . . . .	245	74	13 147	59 544	9 875	19 929	36 798	114 088	7 742	7 316	122 670
	DELAWARE . . . . .	5	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	MARYLAND . . . . .	57	19	1 848	9 665	1 428	2 709	6 385	20 409	483	(D)	(D)
	DISTRICT OF COLUMBIA . . . . .	11	2	112	503	91	183	385	807	12	96	592
	VIRGINIA . . . . .	26	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1 671	8 807
	WEST VIRGINIA . . . . .	16	5	793	2 403	662	1 323	1 889	4 528	166	355	1 653
	NORTH CAROLINA . . . . .	32	10	3 135	14 576	2 086	4 244	7 306	24 320	2 492	(D)	(D)
	SOUTH CAROLINA . . . . .	10	4	1 720	6 397	1 506	3 093	5 055	13 551	977	(D)	(D)
	GEORGIA . . . . .	15	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	FLORIDA . . . . .	73	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	784	3 907
	EAST SOUTH CENTRAL . . . . .	72	20	3 470	16 502	2 789	5 538	11 083	35 288	1 859	2 987	22 289
	KENTUCKY . . . . .	22	6	939	3 814	811	1 728	2 950	9 666	571	(D)	(D)
	TENNESSEE . . . . .	31	9	2 188	11 389	1 687	3 194	7 142	23 486	1 232	(D)	(D)
	ALABAMA . . . . .	10	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	MISSISSIPPI . . . . .	9	3	245	930	217	475	744	1 560	40	72	453
	WEST SOUTH CENTRAL . . . . .	178	48	7 160	32 075	5 790	11 362	22 712	69 856	1 559	6 916	70 668
	ARKANSAS . . . . .	7	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	LOUISIANA . . . . .	13	5	464	2 279	284	602	1 141	4 837	247	194	1 665
	OKLAHOMA . . . . .	25	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	TEXAS . . . . .	133	33	4 197	19 982	3 326	6 543	14 027	44 435	1 012	4 592	47 309
	WEST . . . . .	741	188	26 380	171 763	17 704	36 916	101 192	312 475	14 621	19 030	187 772
	MOUNTAIN . . . . .	90	19	2 784	19 199	1 611	3 676	8 940	39 605	1 203	(D)	(D)
	MONTANA . . . . .	5	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	IDAHO . . . . .	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	WYOMING . . . . .	3	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	COLORADO . . . . .	45	9	872	4 838	659	1 325	3 079	9 139	265	488	3 997
	NEW MEXICO . . . . .	4	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	ARIZONA . . . . .	16	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	400	5 088
	UTAH . . . . .	15	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	34	157
	PACIFIC . . . . .	651	169	23 596	152 564	16 093	33 240	92 252	272 870	13 418	(D)	(D)
	WASHINGTON . . . . .	28	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	OREGON . . . . .	24	5	903	4 905	671	1 282	3 038	10 880	470	570	4 901
	CALIFORNIA . . . . .	597	161	22 464	146 300	15 246	31 624	88 135	259 519	12 861	17 091	170 188
	ALASKA . . . . .	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	HAWAII . . . . .	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
381	SCIENTIFIC INSTRUMENTS, TOTAL <sup>1</sup> . . . .	594	213	33 084	208 171	22 184	44 584	119 836	358 588	16 244	57 249	481 166

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
		Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
382	MECHANICAL MEASURING DEVICES, TOTAL	774	312	94 038	581 175	62 682	126 969	344 980	1 111 620	41 437	75 562	716 095
	NORTHEAST . . . . .	317	136	40 681	254 988	26 353	53 107	145 822	473 628	17 311	37 624	332 726
	NEW ENGLAND . . . . .	89	45	17 262	108 040	10 166	20 942	54 877	189 964	8 165	14 750	128 653
	NEW HAMPSHIRE . . . . .	6	3	151	808	79	146	287	1 185	48	(D)	(D)
	MASSACHUSETTS . . . . .	40	18	9 938	63 823	5 593	11 646	30 761	112 203	4 847	7 044	60 171
	CONNECTICUT . . . . .	34	19	5 719	34 908	3 619	7 224	19 161	60 356	2 972	6 164	54 643
	MIDDLE ATLANTIC . . . . .	228	91	23 419	146 948	16 187	32 165	90 945	283 664	9 146	22 874	204 073
	NEW JERSEY . . . . .	59	23	3 116	17 333	2 126	4 122	10 901	31 040	801	2 250	19 534
	NORTH CENTRAL . . . . .	225	94	39 845	248 296	27 016	54 776	148 706	494 113	17 786	27 195	272 054
	EAST NORTH CENTRAL . . . . .	195	85	31 672	194 799	21 572	43 638	117 628	379 644	15 270	19 856	192 434
	OHIO . . . . .	45	25	7 906	45 060	4 701	9 093	21 830	77 920	5 378	6 008	50 560
	INDIANA . . . . .	18	10	2 108	11 384	1 695	3 328	8 462	22 954	708	1 625	14 961
	ILLINOIS . . . . .	69	30	12 354	73 715	8 372	17 142	43 673	162 910	4 541	7 778	88 973
	MICHIGAN . . . . .	44	12	6 547	47 145	5 085	10 627	33 860	77 511	3 769	1 850	14 702
	WISCONSIN . . . . .	19	8	2 757	17 495	1 719	3 448	9 803	38 349	874	2 595	23 238
	WEST NORTH CENTRAL . . . . .	30	9	8 173	53 497	5 444	11 138	31 078	114 469	2 516	7 339	79 620
	IOWA . . . . .	10	2	537	2 881	414	939	1 922	5 125	(D)	(D)	(D)
	SOUTH . . . . .	95	32	3 949	20 693	2 830	5 537	12 650	42 155	1 646	2 739	26 043
	SOUTH ATLANTIC . . . . .	40	11	1 295	5 932	907	1 700	3 354	10 890	463	(D)	(D)
	FLORIDA . . . . .	13	4	371	1 465	289	563	934	2 652	111	(D)	(D)
	EAST SOUTH CENTRAL . . . . .	11	4	1 632	9 336	1 202	2 372	5 741	18 760	910	(D)	(D)
	WEST SOUTH CENTRAL . . . . .	44	17	1 022	5 425	721	1 465	3 555	12 505	273	(D)	(D)
	WEST . . . . .	137	50	9 563	57 198	6 416	13 549	37 538	101 724	4 694	8 004	85 272
	MOUNTAIN . . . . .	15	3	269	1 489	207	446	1 147	2 145	74	(D)	(D)
	PACIFIC . . . . .	122	47	9 294	55 709	6 209	13 103	36 391	99 579	4 620	(D)	(D)
	CALIFORNIA . . . . .	112	45	9 104	54 578	6 076	12 850	35 633	97 434	4 563	7 672	83 187
383	OPTICAL INSTRUMENTS AND LENSES, TOTAL <sup>1</sup>	280	79	11 924	79 131	8 306	16 728	47 149	131 917	6 163	7 184	60 387
384	MEDICAL INSTRUMENTS & SUPPLIES, TOTAL	1 314	345	51 420	291 212	36 276	72 031	165 454	634 705	31 080	41 714	414 367
	NORTHEAST . . . . .	479	157	26 830	158 078	18 340	36 664	85 878	320 181	15 434	23 574	231 877
	NEW ENGLAND . . . . .	117	53	6 618	30 083	5 137	10 240	20 705	60 460	4 310	5 140	35 499
	MASSACHUSETTS . . . . .	67	26	2 208	10 718	1 717	3 449	7 306	19 556	817	1 448	9 714
	CONNECTICUT . . . . .	29	22	3 609	16 396	2 706	5 399	10 909	34 660	3 052	3 300	22 776
	MIDDLE ATLANTIC . . . . .	362	104	20 212	127 995	13 203	26 424	65 173	259 721	11 124	18 434	196 378
	NEW YORK . . . . .	213	50	7 497	42 474	5 335	10 627	25 164	88 876	3 070	7 233	75 417
	NEW JERSEY . . . . .	63	18	7 115	55 097	3 718	7 687	21 047	94 175	(D)	6 328	71 824
	PENNSYLVANIA . . . . .	86	36	5 600	30 424	4 150	8 110	18 962	76 670	(D)	4 873	49 137
	NORTH CENTRAL . . . . .	369	115	14 132	80 329	10 140	20 110	47 427	194 951	8 346	13 038	135 845
	EAST NORTH CENTRAL . . . . .	278	89	10 906	64 023	7 690	15 201	36 977	159 866	6 674	10 540	117 369
	OHIO . . . . .	80	28	2 347	11 604	1 711	3 354	7 199	23 462	388	2 379	17 144
	ILLINOIS . . . . .	103	37	5 880	38 313	4 003	8 048	21 292	101 511	5 128	5 706	76 428
	MICHIGAN . . . . .	44	9	1 312	6 859	1 015	1 881	4 113	11 621	303	(D)	(D)
	WEST NORTH CENTRAL . . . . .	91	26	3 226	16 306	2 450	4 909	10 450	35 085	1 672	2 498	18 476
	MINNESOTA . . . . .	26	6	667	3 619	386	803	1 792	6 425	256	(D)	(D)
	MISSOURI . . . . .	36	13	1 388	7 687	992	1 894	4 430	12 121	276	1 370	9 768
	SOUTH . . . . .	195	31	5 168	22 202	4 121	8 261	14 927	52 302	3 777	2 629	22 959
	SOUTH ATLANTIC . . . . .	104	19	3 677	15 928	2 975	6 057	10 990	37 190	2 889	(D)	(D)
	MARYLAND . . . . .	15	3	171	911	135	271	613	3 912	39	(D)	(D)
	VIRGINIA . . . . .	6	2	129	596	66	105	234	926	21	(D)	(D)
	NORTH CAROLINA . . . . .	16	4	830	3 281	645	1 229	2 050	5 235	156	(D)	(D)
	FLORIDA . . . . .	35	3	759	4 063	612	1 312	3 057	10 926	(D)	109	(D)
	EAST SOUTH CENTRAL . . . . .	39	8	784	3 119	665	1 237	2 152	7 062	595	(D)	(D)
	KENTUCKY . . . . .	11	2	186	711	159	321	477	1 397	21	191	925
	TENNESSEE . . . . .	17	4	498	2 074	423	741	1 427	5 179	533	405	3 019
	WEST SOUTH CENTRAL . . . . .	52	4	707	3 155	481	967	1 785	8 050	293	(D)	(D)
	LOUISIANA . . . . .	6	2	212	734	151	336	515	1 508	129	(D)	(D)
	TEXAS . . . . .	39	2	479	2 356	317	605	1 218	6 416	159	(D)	(D)
	WEST . . . . .	270	42	5 290	30 601	3 675	6 996	17 220	67 270	3 523	2 473	23 686
	MOUNTAIN . . . . .	43	8	672	3 552	468	918	2 028	6 069	216	(D)	(D)
	COLORADO . . . . .	24	5	505	2 780	363	715	1 601	4 619	151	259	2 319
	PACIFIC . . . . .	227	34	4 618	27 049	3 207	6 078	15 192	61 201	3 307	(D)	(D)
	OREGON . . . . .	9	1	141	722	112	224	492	1 337	49	(D)	(D)
	CALIFORNIA . . . . .	203	33	4 439	26 125	3 063	5 799	14 533	59 201	3 242	2 054	20 008

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963								1958		
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
385	OPHTHALMIC GOODS, TOTAL <sup>1</sup> . . . . .	229	109	20 296	96 361	16 467	32 771	68 954	177 898	9 085	18 223	136 696
386	PHOTOGRAPHIC EQUIPMENT, TOTAL . . . .	538	187	64 937	498 828	39 248	77 753	251 566	1 270 132	79 626	60 262	798 750
387	WATCHES, CLOCKS AND WATCHCASES, TOTAL	220	98	29 753	157 594	23 285	45 719	102 779	307 271	9 230	26 157	183 556
	NORTHEAST . . . . .	152	66	16 529	94 732	12 315	24 137	58 139	185 923	(D)	15 220	112 356
	NEW ENGLAND . . . . .	22	16	8 216	43 700	6 133	11 862	27 837	96 733	(D)	8 479	54 823
	MASSACHUSETTS . . . . .	10	6	3 284	17 395	2 462	4 698	11 679	45 177	1 106	2 502	22 899
	MIDDLE ATLANTIC . . . . .	130	50	8 313	51 032	6 182	12 275	30 302	89 190	(D)	6 741	57 533
	NEW JERSEY . . . . .	10	5	440	2 279	267	568	1 131	4 190	682	(D)	(D)
	NORTH CENTRAL . . . . .	39	22	8 460	45 238	6 647	13 045	30 557	82 569	2 815	7 700	39 250
	ILLINOIS . . . . .	24	14	6 385	34 305	5 040	9 789	23 255	61 052	2 074	6 445	31 891
	MICHIGAN . . . . .	4	3	372	1 759	319	624	1 199	2 462	22	347	2 061
	SOUTH . . . . .	20	9	4 683	17 074	4 277	8 479	13 951	38 037	(D)	3 148	30 963
	WEST . . . . .	9	1	81	550	46	58	132	742	(D)	89	987
	PACIFIC . . . . .	9	1	81	550	46	58	132	742	(D)	(D)	(D)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.  
<sup>1</sup>This industry group consists of a single 4-digit industry. Detailed data by State are included in the 4-digit industry tables.

TABLE 3. Detailed Statistics: 1963

Item	Instruments and related products (SIC 38)	Scientific instruments (SIC 381)	Mechanical measuring devices (SIC 382)	Optical instruments and lenses (SIC 383)	Medical instruments and supplies (SIC 384)	Ophthalmic goods (SIC 385)	Photographic equipment (SIC 386)	Watches, clocks, and watchcases (SIC 387)
ESTABLISHMENTS, TOTAL . . . . . NUMBER . .	3 949	594	774	280	1 314	229	538	220
WITH 1 TO 19 EMPLOYEES . . . . . DO . .	2 606	381	462	201	969	120	351	122
WITH 20 TO 99 EMPLOYEES . . . . . DO . .	868	154	176	51	237	75	119	56
WITH 100 EMPLOYEES OR MORE . . . . . DO . .	475	59	136	28	108	34	68	42
PROPRIETORS AND WORKING PARTNERS . . . . . DO . .	1 410	188	223	112	546	70	181	90
ALL EMPLOYEES (AVERAGE FOR THE YEAR) . . . . . DO . .	305 452	33 084	94 038	11 924	51 420	20 296	64 937	29 753
PAYROLL (ALL EMPLOYEES), TOTAL FOR YEAR \$1,000 . .	1 912 472	208 171	581 175	79 131	291 212	96 361	498 828	157 594
PRODUCTION WORKERS:								
AVERAGE FOR THE YEAR . . . . . NUMBER . .	208 448	22 184	62 682	8 306	36 276	16 467	39 248	23 285
MARCH . . . . . DO . .	204 765	22 358	62 447	8 196	35 658	16 415	37 694	21 997
MAY . . . . . DO . .	206 679	22 041	62 702	8 166	36 188	16 705	38 329	22 548
AUGUST . . . . . DO . .	210 573	22 291	62 811	8 345	36 255	16 067	40 598	24 206
NOVEMBER . . . . . DO . .	211 537	22 046	62 721	8 509	36 824	16 689	40 369	24 379
MAN-HOURS . . . . . \$1,000 . .	416 555	44 584	126 969	16 728	72 031	32 771	77 753	45 719
JANUARY-MARCH . . . . . DO . .	102 744	11 054	31 719	4 196	17 773	8 030	18 987	10 985
APRIL-JUNE . . . . . DO . .	104 602	11 194	31 900	4 174	18 341	8 470	19 303	11 220
JULY-SEPTEMBER . . . . . DO . .	101 063	10 946	30 673	3 958	17 521	7 566	19 311	11 088
OCTOBER-DECEMBER . . . . . DO . .	108 146	11 390	32 677	4 400	18 396	8 705	20 152	12 426
WAGES . . . . . \$1,000 . .	1 100 718	119 836	344 980	47 149	165 454	68 954	251 566	102 779
COST OF MATERIALS, ETC., TOTAL <sup>1</sup> . . . . . DO . .	2 171 108	200 034	573 946	66 557	1409 677	96 611	580 544	243 739
MATERIALS, PARTS, CONTAINERS, AND SUPPLIES CONSUMED . . . . . DO . .	1 821 986	166 172	500 149	53 059	313 233	87 247	482 707	219 419
COST OF REALES . . . . . DO . .	237 872	21 195	44 692	5 050	69 746	4 564	72 111	20 514
FUELS CONSUMED . . . . . DO . .	16 207	1 048	3 109	385	2 006	1 071	7 888	700
ELECTRIC ENERGY:								
PURCHASED:								
QUANTITY . . . . . MILLION KW.-HRS. .	1 661	177	532	53	249	141	398	111
COST . . . . . \$1,000 . .	23 902	2 747	7 599	1 182	3 603	1 793	5 219	1 759
GENERATED LESS SOLD . . . . . MILLION KW.-HRS. .	3 733	-	(D)	(D)	(D)	(D)	(D)	(D)
CONTRACT WORK . . . . . \$1,000 . .	71 143	8 872	18 397	6 681	21 089	1 936	12 619	1 349
VALUE OF SHIPMENTS (INCLUDING REALES), TOTAL <sup>1</sup> . . . . . DO . .	6 117 889	553 920	1 670 774	196 022	11 028 485	272 687	1 851 213	544 788
VALUE OF REALES . . . . . DO . .	365 062	32 928	62 800	8 700	104 855	6 235	126 486	23 058
VALUE ADDED BY MANUFACTURE, ADJUSTED . . . . . DO . .	3 992 131	358 588	1 111 620	131 917	634 705	177 898	1 270 132	307 271
MANUFACTURERS' INVENTORIES:								
BEGINNING OF YEAR, TOTAL . . . . . DO . .	1 121 632	115 571	348 811	40 151	175 393	70 683	279 302	91 721
FINISHED PRODUCTS . . . . . DO . .	340 057	21 829	84 824	10 337	57 452	32 413	97 155	36 047
WORK-IN-PROCESS . . . . . DO . .	480 026	64 545	164 697	24 477	61 845	25 592	98 887	39 983
MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO . .	301 549	29 197	99 290	5 337	56 096	12 678	83 260	15 691
END OF YEAR, TOTAL . . . . . DO . .	1 177 942	122 106	367 296	42 960	187 954	72 663	289 511	95 452
FINISHED PRODUCTS . . . . . DO . .	348 167	22 455	87 613	10 676	65 552	33 195	89 046	39 630
WORK-IN-PROCESS . . . . . DO . .	518 271	69 721	176 605	26 590	69 642	26 632	106 459	42 622
MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO . .	311 504	29 930	103 078	5 694	52 760	12 836	94 006	13 200
EXPENDITURES FOR PLANT AND EQUIPMENT, TOTAL DO . .	199 387	18 825	43 025	6 861	31 879	9 352	79 590	9 855
NEW, TOTAL . . . . . DO . .	191 865	16 244	41 437	6 163	31 080	9 085	78 626	9 230
NEW STRUCTURES AND ADDITIONS TO PLANT . . . . . DO . .	52 324	6 219	13 362	2 140	10 260	851	17 859	1 633
NEW MACHINERY AND EQUIPMENT . . . . . DO . .	139 541	10 025	28 075	4 023	20 820	8 234	60 767	7 597
USED PLANT AND EQUIPMENT . . . . . DO . .	7 522	2 581	1 588	698	799	267	964	625
SELECTED OPERATING RATIOS:								
PAYROLL/TOTAL EMPLOYMENT . . . . .	6 261	6 292	6 180	6 636	5 653	4 748	7 682	5 297
PRODUCTION WORKERS/TOTAL EMPLOYMENT . . . . .	.68	.67	.67	.70	.71	.81	.60	.78
MAN-HOURS/PRODUCTION WORKERS . . . . .	1 998	2 010	2 026	2 014	1 986	1 990	1 981	1 963
PRODUCTION WORKER WAGES/MAN-HOURS . . . . .	2.64	2.69	2.72	2.82	2.30	2.10	3.24	2.25
COST OF MATERIALS AND PAYROLLS/TOTAL VALUE OF SHIPMENTS . . . . .	.67	.74	.69	.74	.68	.74	.58	.74
COST OF MATERIALS/TOTAL VALUE OF SHIPMENTS . . . . .	.35	.36	.34	.34	.40	.35	.31	.45
ADJUSTED VALUE ADDED/TOTAL EMPLOYMENT . . . . .	13 070	10 839	11 821	11 063	12 344	8 675	19 559	10 327
SALARIES AND WAGES/ADJUSTED VALUE ADDED . . . . .	.48	.58	.52	.60	.46	.54	.39	.51

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry. For a more complete explanation, see Introduction.





## INSTRUMENTS; SURGICAL, DENTAL, AND OPHTHALMIC GOODS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3811—Engineering, Laboratory, and Scientific and Research Instruments and Associated Equipment
- 3821—Mechanical Measuring and Controlling Instruments, Except Automatic Temperature Controls
- 3822—Automatic Temperature Controls
- 3831—Optical Instruments and Lenses
- 3841—Surgical and Medical Instruments and Apparatus
- 3842—Orthopedic, Prosthetic, and Surgical Appliances and Supplies
- 3843—Dental Equipment and Supplies
- 3851—Ophthalmic Goods

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

Each of these industries is characterized by a wide variety of products. However, most of the individual establishments tend to specialize in a single product or group of similar products. Many of the categories include hundreds of different specific products. For example, data for most types of laboratory and scientific instruments and apparatus are presented as a single item. The products included in many of these items are highly diversified and range from very simple hand tools to highly complex instruments such as mapping equipment.

Establishments in the instrument industries (particularly industries 3811, 3821, and 3831 covered in this report and industry 3611, Electric Measuring Instruments, which includes plants primarily engaged in manufacturing instruments for indicating, measuring, and recording electrical quantities and characteristics), produce a wide variety of complex items requiring skilled workmanship and an unusually high degree of precision. Plants of this type have a higher ratio of wages to value of shipments than are found in other industries. The instrument industries have also experienced significant technological advances which have intensified even further the need for the high degree of precision.

Industries 3842, Surgical Appliances and Supplies, and 3843, Dental Equipment and Supplies, include many establishments which specialize in a single line of appliances or



supplies. These establishments perform a wide variety of manufacturing processes and consume different types of materials. However, they are brought together into these two industries by the use to which their products are put.

Separate descriptions of these industries are given below.

#### 3811--ENGINEERING, LABORATORY, AND SCIENTIFIC AND RESEARCH INSTRUMENTS AND ASSOCIATED EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing laboratory, scientific, and engineering instruments such as nautical, navigational, aeronautical, surveying, drafting, and instruments for laboratory work and scientific research (except optical instruments--industry 3831). Establishments primarily engaged in manufacturing surgical and medical instruments are classified in industry 3841; dental instruments and equipment in industry 3843; mechanical measuring and controlling instruments in industry 3821; machinists' precision measuring tools in industry 3545; instruments for indicating, measuring, and recording electrical quantities and characteristics in industry 3611; watches and clocks in industry 3871; and measuring and dispensing pumps in industry 3586. For a detailed list of products of industry 3811, refer to tables 6A-1 and 6A-2.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

During the period 1958-1963 reports received from some large establishments indicated a change from the manufacture primarily of such individual instruments as those used for indicating air speed, rate-of-climb, angle-of-yaw and similar flight characteristics, and gyroscopes which are sold separately, to primarily manufacturing complete instrumentation systems for navigation, guidance, check-out, etc. The major impact of this change has been on the classification of products and, consequently, the SIC coding of these large establishments. This change in reporting was brought to light by the initiation by the Census Bureau of detailed commodity surveys in the fields of electronic products and instrumentation. The electronic and associated products report (MA-36N) was started covering the year 1961 and the instruments series (MA-38B) was broadened for 1963 to encompass most types of instruments following an introductory report for 1961 and 1962 covering industrial process instruments and test and measuring equipment. Annual statistics from both reports are published in the Current Industrial Reports Series.

In both the 1958 Census of Manufactures and the Annual Survey of Manufactures from 1959 through 1962 the classification of systems was not sufficiently spelled out in the product inquiries of these programs, especially at the 5-digit product class level. However, with the introduction in the MA-36N and MA-38B surveys of detailed 7-digit product information which itself is used to build up to broader 5-digit product class totals, these totals, although they should be the same as those reported on Form MA-100 (Annual Survey of Manufactures), have differed. The respondents affected have identified the proportion of earlier years' output which consisted of systems rather than instruments as such, which was the manner in which the items were originally reported.

In view of the above, the annual data for 1958-1962 have been revised, as indicated with the symbol "r" in the appropriate tables. Because of the shift in recent years from instruments which are classified in industry 3811 to complete systems which are classified in industry 3662, the year-to-year changes are of dubious validity for the industries considered separately. The two industries taken in combination however, would yield significant measures of activity in the general area.

Value of shipments and other receipts of the Scientific Instruments Industry totaled \$554 million. This amount included shipments of scientific instruments (primary products) valued at \$406 million, shipments of other products (secondary products) valued at \$80 million, and miscellaneous receipts (mainly resales) at \$68 million.

This industry's shipments of scientific instruments represented 84 percent of its total product shipments. The industry specialization ratio in 1958 was 78 percent. Secondary products shipped by this industry in 1963 consisted mainly of industrial process instruments (\$6 million), and aircraft engine instruments, except flight (\$6 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 46 percent of the total industry shipments are represented by plants specializing in product class 38111, Aircraft, flight, nautical and navigational instruments and automatic pilots; 28 percent in 38112, Laboratory and scientific instruments; and 23 percent in 38113, Surveying and drafting instruments and laboratory furniture.

Shipments of scientific instruments by this industry represented 56 percent of all shipments of these products (\$722 million) by all industries. In 1958 the coverage ratio was 67 percent. Other industries shipping scientific instruments consisted mainly of industry 3662, Radio, TV Communications Equipment, \$175 million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3811, e.g., Aircraft, flight, nautical, and navigational instruments and automatic pilots (38111), 44 percent; and Surveying and drafting instruments and laboratory furniture (38113), 91 percent.

#### 3821—MECHANICAL MEASURING AND CONTROLLING INSTRUMENTS, EXCEPT AUTOMATIC TEMPERATURE CONTROLS

This industry comprises establishments primarily engaged in the manufacture of industrial process instruments for indicating, recording, measuring and controlling temperature (except automatic temperature controls—industry 3822), pressure and vacuum, fluid flow and liquid level, mechanical motion, rotation, humidity, density, acidity, alkalinity, and combustion; dial pressure gauges; physical property testing apparatus such as hardness, tension, compression, torsion, ductility; and elasticity testing apparatus. For a detailed list of products of industry 3821, refer to tables 6A-1 and 6A-2.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Mechanical Measuring Devices Industry totaled \$1,143 million. This amount included shipments of mechanical measuring devices (primary products) valued at \$819 million, shipments of other products (secondary products) valued at \$207 million, and miscellaneous receipts (mainly resales) at \$117 million.

This industry's shipments of mechanical measuring devices represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was 86 percent. Secondary products shipped by this industry in 1963 consisted mainly of carburetors, pistons, and other machine shop products (\$20-\$50 million), and miscellaneous electrical measuring instruments (\$17 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 52 percent of the total industry shipments are represented by plants specializing in industrial process instruments (38213).

Shipments of mechanical measuring devices by this industry represented 83 percent of all shipments of these products (\$984 million) by all industries. In 1958 the coverage ratio was 76 percent. Other industries shipping mechanical measuring devices consisted mainly



of industry 3494, Valves and Pipe Fittings, \$9 million; and industry, 3811, Scientific Instruments, \$13 million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3821, e.g., integrating meters, nonelectrical type (38212), 98 percent; motor vehicle instruments, except electric (38214), 66 percent; and aircraft engine instruments, except flight (38211), 62 percent.

#### 3822—AUTOMATIC TEMPERATURE CONTROLS

This industry comprises establishments primarily engaged in manufacturing automatic temperature controls activated by pressure, temperature, level, flow, time, or humidity (including pneumatic controls) of the type principally used as components of air conditioning, refrigeration, and comfort heating, or as components of household appliances. Establishments primarily engaged in manufacturing industrial electric controls are classified in industry 3622. For a detailed list of products of industry 3822, refer to table 6A-2, product codes 3822014 to 3822018.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Automatic Temperature Controls Industry totaled \$527 million. This amount included shipments of automatic temperature controls (primary products) valued at \$409 million, shipments of other products (secondary products) valued at \$91 million, and miscellaneous receipts (mainly resales) at \$27 million.

This industry's shipments of automatic temperature controls represented 82 percent of its total product shipments. The industry specialization ratio in 1958 was 88 percent. Secondary products shipped by this industry in 1963 consisted mainly of industrial controls (\$13 million), and metal valves for piping systems (\$9 million).

Shipments of automatic temperature controls by this industry in 1963 represented 95 percent of all shipments of these products (\$432 million) by all industries. In 1958 the coverage ratio was 94 percent. Other industries shipping automatic temperature controls consisted mainly of industry 3821, Mechanical Measuring Devices, \$10 million; and industry 3494, Valves and Pipe Fittings, \$2 million.

#### 3831—OPTICAL INSTRUMENTS AND LENSES

This industry comprises establishments primarily engaged in the production of optical lenses and prisms, and in manufacturing optical instruments such as microscopes, telescopes, field and opera glasses; and optical measuring and testing instruments such as refractometers, spectrometers, spectroscopes, colorimeters, and polariscopes. Establishments primarily engaged in manufacturing eyeglass lenses, frames, or fittings are classified in industry 3851; and those engaged in manufacturing sighting and fire-control instruments, but not engaged in manufacturing optical components, in industry 1941. For a detailed list of products of industry 3831, refer to table 6A-2, product codes 3831131 to 3831262.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Optical Instruments and Lenses Industry totaled \$196 million. This amount included shipments of optical instruments and lenses (primary products) valued at \$165 million, shipments of other products (secondary products) valued at \$17 million, and miscellaneous receipts (mainly resales) at \$14 million.

This industry's shipments of optical instruments and lenses represented 90 percent of its total product shipments. The industry specialization ratio in 1958 also was 90 percent. Secondary products shipped by this industry in 1963 consisted mainly of still picture equipment (\$3 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 75 percent of the total industry shipments are represented by plants specializing in product classes 38311, Optical and analytical instruments and lenses; and 21 percent in 38312, Sighting and fire-control equipment made from lenses, prisms, etc., produced in the same plant.

Shipments of optical instruments and lenses by this industry represented 61 percent of all shipments of these products (\$270 million) by all industries. In 1958 the coverage ratio was 66 percent. Other industries shipping optical instruments and lenses consisted mainly of industry 3662, Radio, TV Communications Equipment, \$10-\$20 million.

#### 3841—SURGICAL AND MEDICAL INSTRUMENTS AND APPARATUS

This industry comprises establishments primarily engaged in manufacturing medical, surgical, ophthalmic, and veterinary instruments and apparatus. Establishments primarily engaged in manufacturing surgical and orthopedic appliances are classified in industry 3842; and electrotherapeutic, electromedical, and X-ray apparatus in industry 3693. For a detailed list of products of industry 3841, refer to table 6A-1, product codes 3841012 to 3841095.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Surgical and Medical Instruments Industry totaled \$284 million. This amount included shipments of surgical and medical instruments (primary products) valued at \$215 million, shipments of other products (secondary products) valued at \$29 million, and miscellaneous receipts (mainly resales) at \$40 million.

This industry's shipments of surgical and medical instruments represented 88 percent of its total product shipments. The industry specialization ratio in 1958 was 83 percent. Secondary products shipped by this industry in 1963 consisted mainly of surgical, orthopedic, and prosthetic appliances and supplies (\$3 million), and furniture and fixtures, n.e.c. (\$3 million).

Shipments of surgical and medical instruments by this industry represented 74 percent of all shipments of these products (\$291 million) by all industries. In 1958 the coverage ratio was 76 percent. Other industries shipping surgical and medical instruments consisted mainly of industry 2834, Pharmaceutical Preparations, \$22 million; and industry 3842, Surgical Appliances and Supplies, \$6 million.

The production index for the primary products of the industry increased to 254 in 1963 from the 1958 level of 117. The unit value index for 1963 was 109 compared to 112 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3842—ORTHOPEDIC, PROSTHETIC, AND SURGICAL APPLIANCES AND SUPPLIES

This industry comprises establishments primarily engaged in manufacturing orthopedic, prosthetic, and surgical appliances and supplies, arch supports, and other foot appliances; fracture appliances, elastic hosiery, abdominal supporters, braces, and trusses; bandages; surgical gauze and dressings; sutures; adhesive tapes and medicated plasters; and personal



safety appliances and equipment. Establishments primarily engaged in manufacturing surgical and medical instruments are classified in industry 3841. Establishments primarily engaged in manufacturing appliances and in the personal fitting to the individual prescription of a physician are classified in trade industries. For a detailed list of products of industry 3842, refer to table 6A-1, product codes 3842111 to 3842400.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Surgical Appliances and Supplies Industry totaled \$597 million. This amount included shipments of surgical appliances and supplies (primary products) valued at \$415 million, shipments of other products (secondary products) valued at \$105 million, and miscellaneous receipts (mainly resales) at \$77 million.

This industry's shipments of surgical appliances and supplies represented 80 percent of its total product shipments. The industry specialization ratio in 1958 was 84 percent. Secondary products shipped by this industry in 1963 consisted mainly of pharmaceutical preparations affecting parasitic and infective diseases, for human use (\$10-\$20 million), and cosmetic and toilet preparations (\$10-\$20 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 73 percent of the total industry shipments are represented by plants specializing in product class 38421; Surgical, orthopedic and prosthetic appliances and supplies; and 18 percent in 38423, Personal industrial safety devices.

Shipments of surgical appliances and supplies by this industry represented 90 percent of all shipments of these products (\$462 million) by all industries. In 1958 the coverage ratio was also 90 percent. Other industries shipping surgical appliances and supplies consisted mainly of industry 2641, Paper Coating and Glazing, \$10 million; and industry 3851, Ophthalmic Goods, \$5 million.

The production index for the primary products of the industry increased to 155 in 1963 from the 1958 level of 118. The unit value index for 1963 was 104 compared to 107 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3843—DENTAL EQUIPMENT AND SUPPLIES

This industry comprises establishments primarily engaged in manufacturing artificial teeth, dental metals, alloys and amalgams, and a wide variety of equipment, instruments, and supplies used by dentists, dental laboratories, and dental colleges. Dental laboratories constructing artificial dentures, bridges, inlays and other dental restorations on specifications from dentists are classified in service industries. For a detailed list of products of industry 3843, refer to table 6A-1, product codes 3843011 to 3843098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Dental Equipment and Supplies Industry totaled \$148 million. This amount included shipments of dentalequipment and supplies (primary products) valued at \$128 million, shipments of other products (secondary products) valued at \$9 million, and miscellaneous receipts (mainly resales) at \$11 million.

This industry's shipments of dental equipment and supplies represented 94 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent. Secondary products shipped by this industry in 1963 consisted mainly of surgical and medical instruments (\$2-\$5 million).

Shipments of dental equipment and supplies by this industry represented 92 percent of all shipments of these products (\$140 million) by all industries. In 1958 the coverage ratio was 92 percent. Other industries shipping dental equipment and supplies consisted mainly of industry 3842, Surgical Appliances and Supplies, \$5-\$10 million.

The production index for the primary products of the industry increased to 134 in 1963 from the 1958 level of 118. The unit value index for 1963 was 131 compared to 118 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3851—OPHTHALMIC GOODS

This industry comprises establishments primarily engaged in manufacturing ophthalmic frames, lenses, and sunglass lenses. Establishments primarily engaged in manufacturing slit lamps are classified in industry 3841, and molded glass blanks in industry 3229. Establishments primarily engaged in grinding lenses and fitting glasses to prescription are classified in trade. For a detailed list of products of industry 3851, refer to table 6A-1, product codes 3851012 to 3851098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Ophthalmic Goods Industry totaled \$273 million. This amount included shipments of ophthalmic goods (primary products) valued at \$226 million, shipments of other products (secondary products) valued at \$37 million, and miscellaneous receipts (mainly resales) at \$10 million.

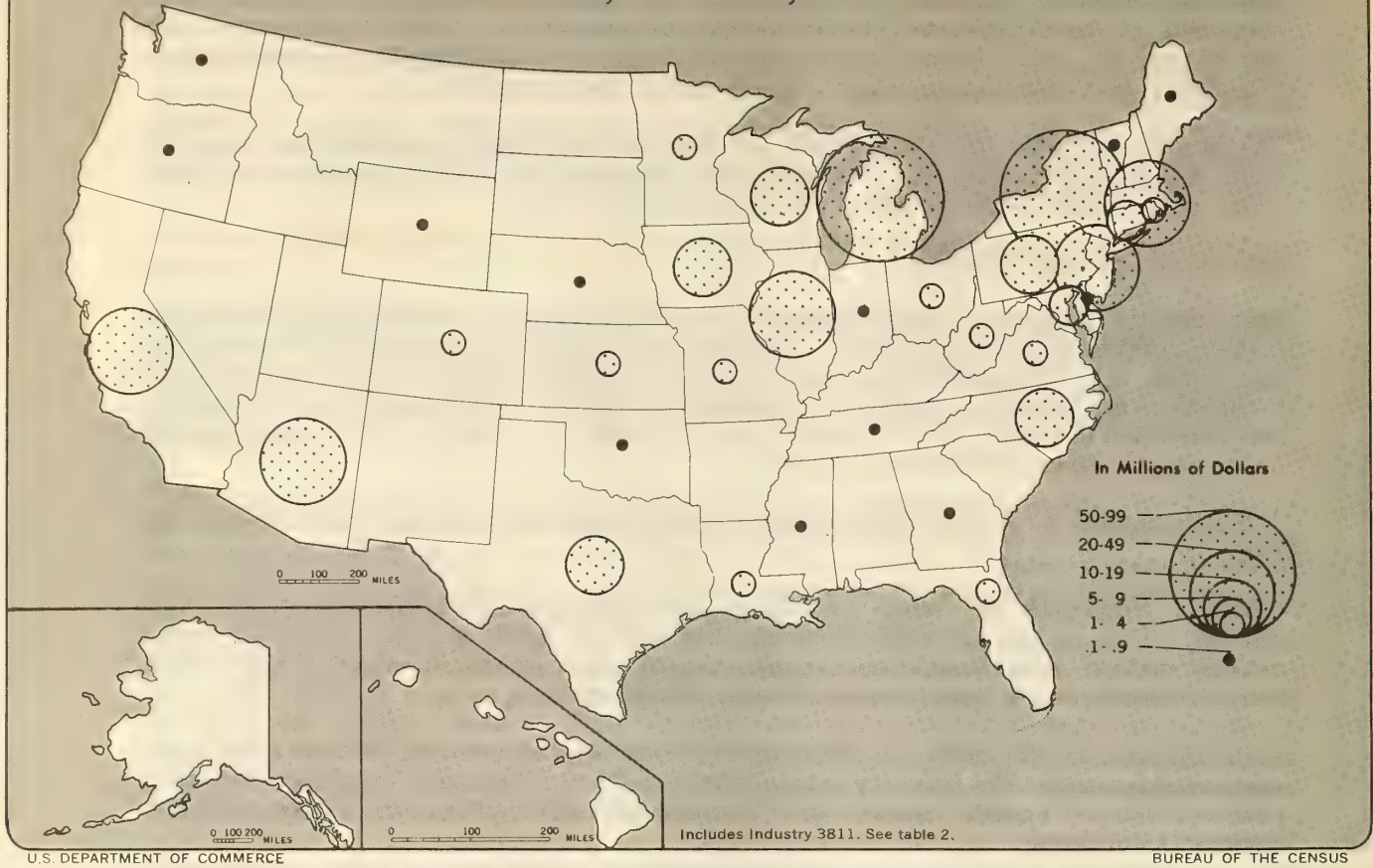
This industry's shipments of ophthalmic goods represented 86 percent of its total product shipments. The industry specialization ratio in 1958 was 87 percent. Secondary products shipped by this industry in 1963 consisted mainly of personal industrial safety devices (\$5 million).

Shipments of ophthalmic goods by this industry represented 92 percent of all shipments of these products (\$244 million) by all industries. In 1958 the coverage ratio was 98 percent. Other industries shipping ophthalmic goods consisted mainly of industry 2821, Plastics Materials and Resins, and industry 3861, Photographic Equipment, both over \$2 million each.

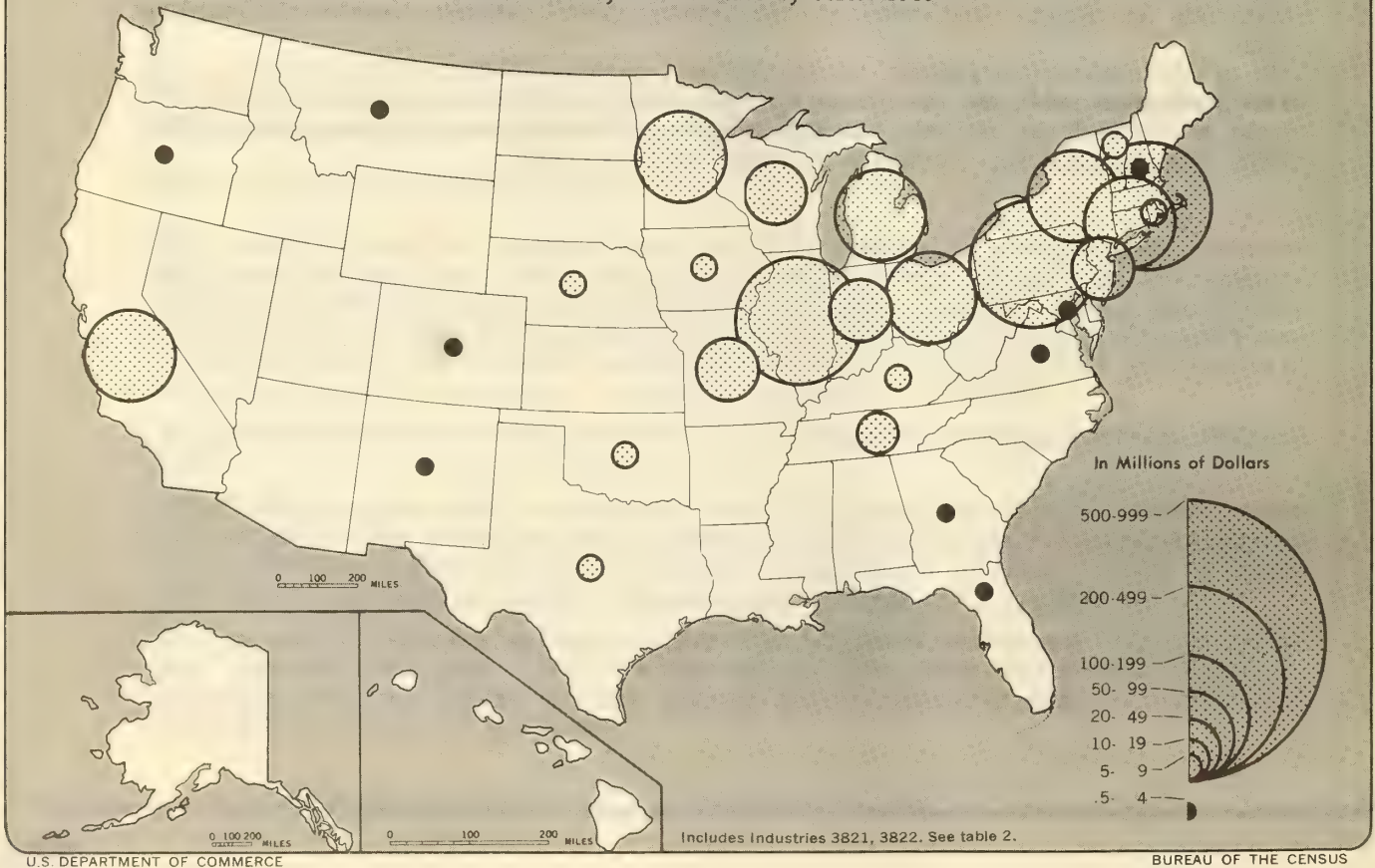
The production index for the primary products of the industry increased to 139 in 1963 from the 1958 level of 109. The unit value index for 1963 was 126 compared to 113 in 1958. Both indexes were computed on a basis of 1954 = 100.



# SCIENTIFIC INSTRUMENTS: SIC 381 Value Added by Manufacture by State: 1963

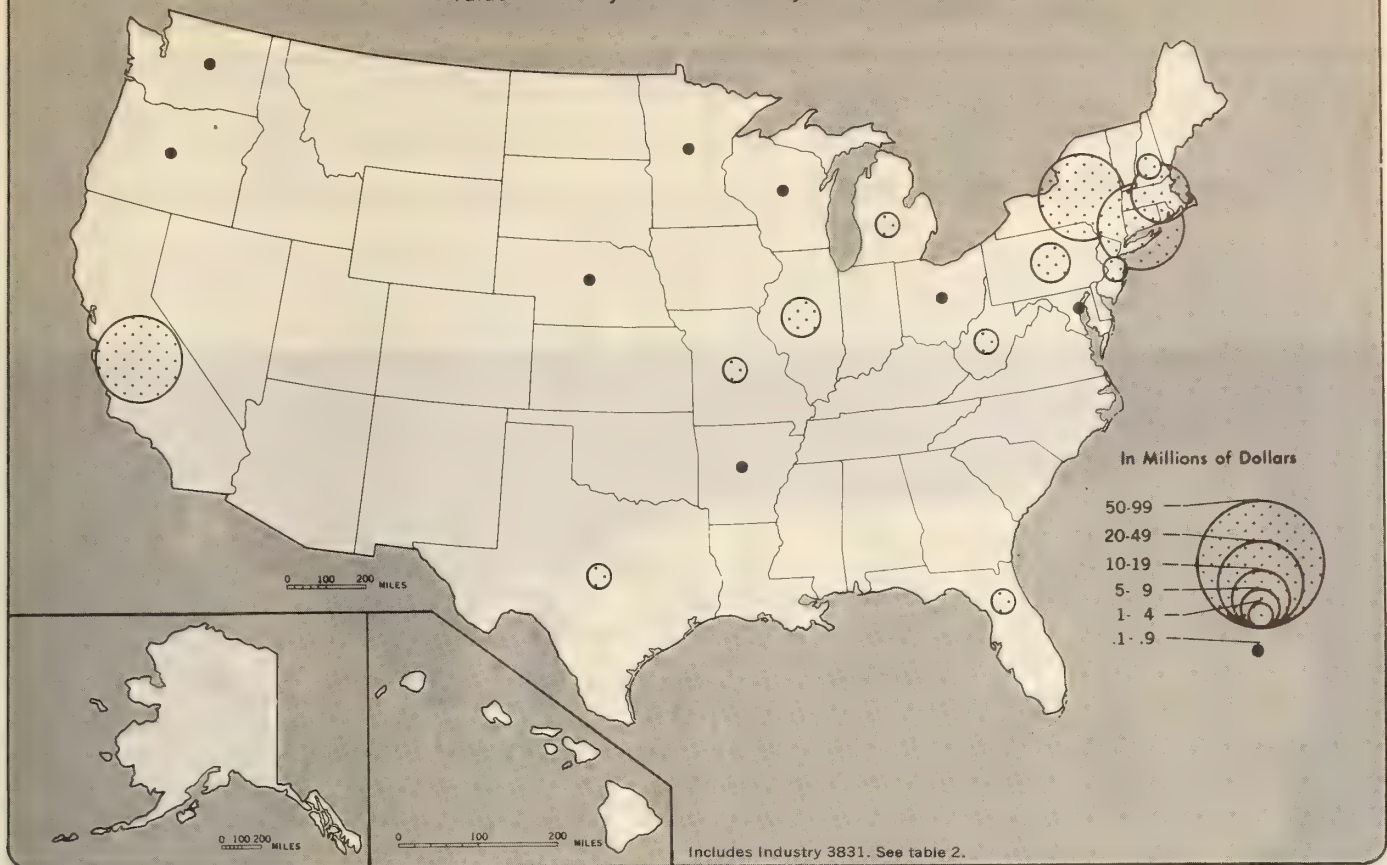


# MECHANICAL MEASURING DEVICES: SIC 382 Value Added by Manufacture by State: 1963



# OPTICAL INSTRUMENTS AND LENSES: SIC 383

## Value Added by Manufacture by State: 1963

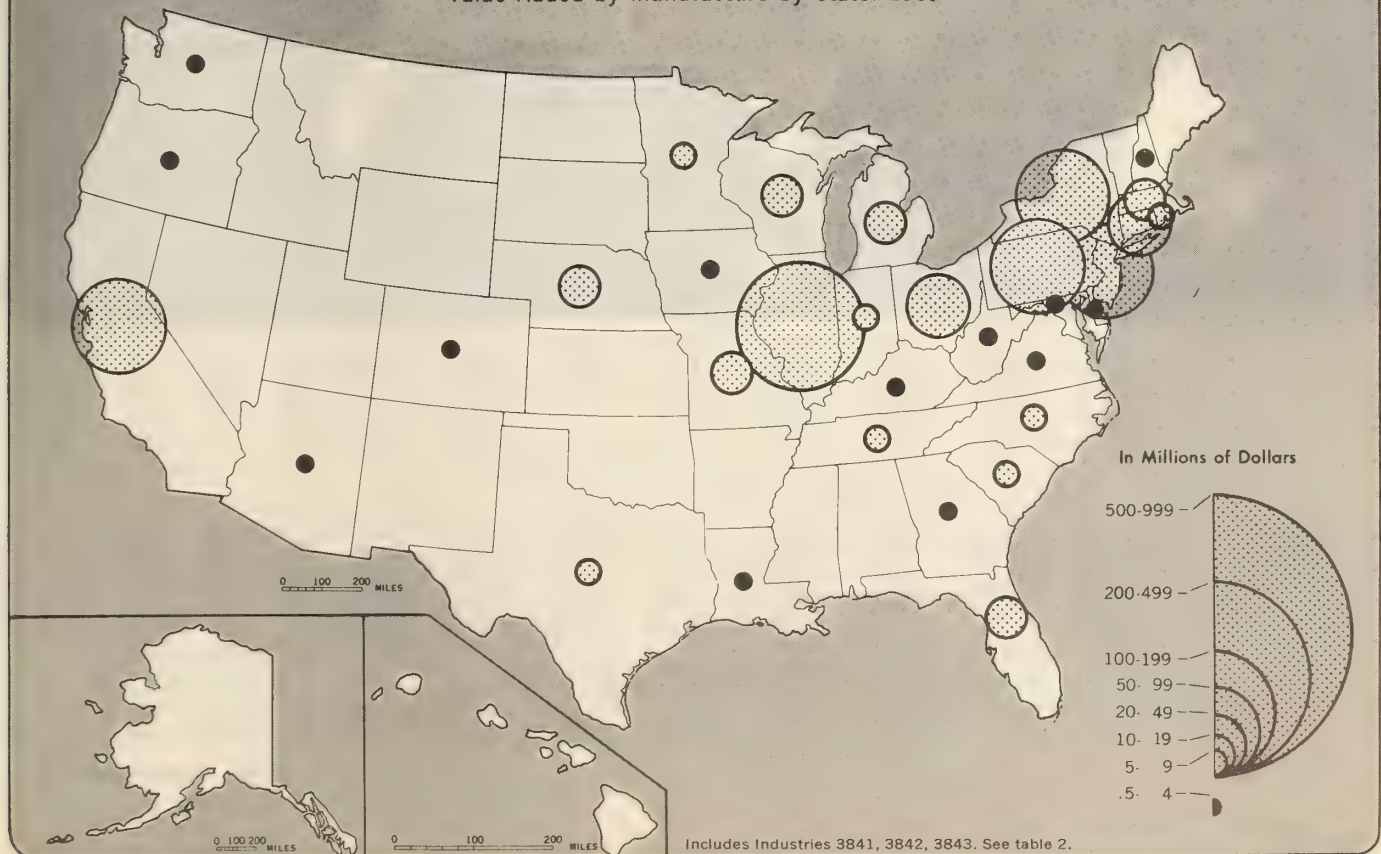


U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

# MEDICAL INSTRUMENTS AND SUPPLIES: SIC 384

## Value Added by Manufacture by State: 1963

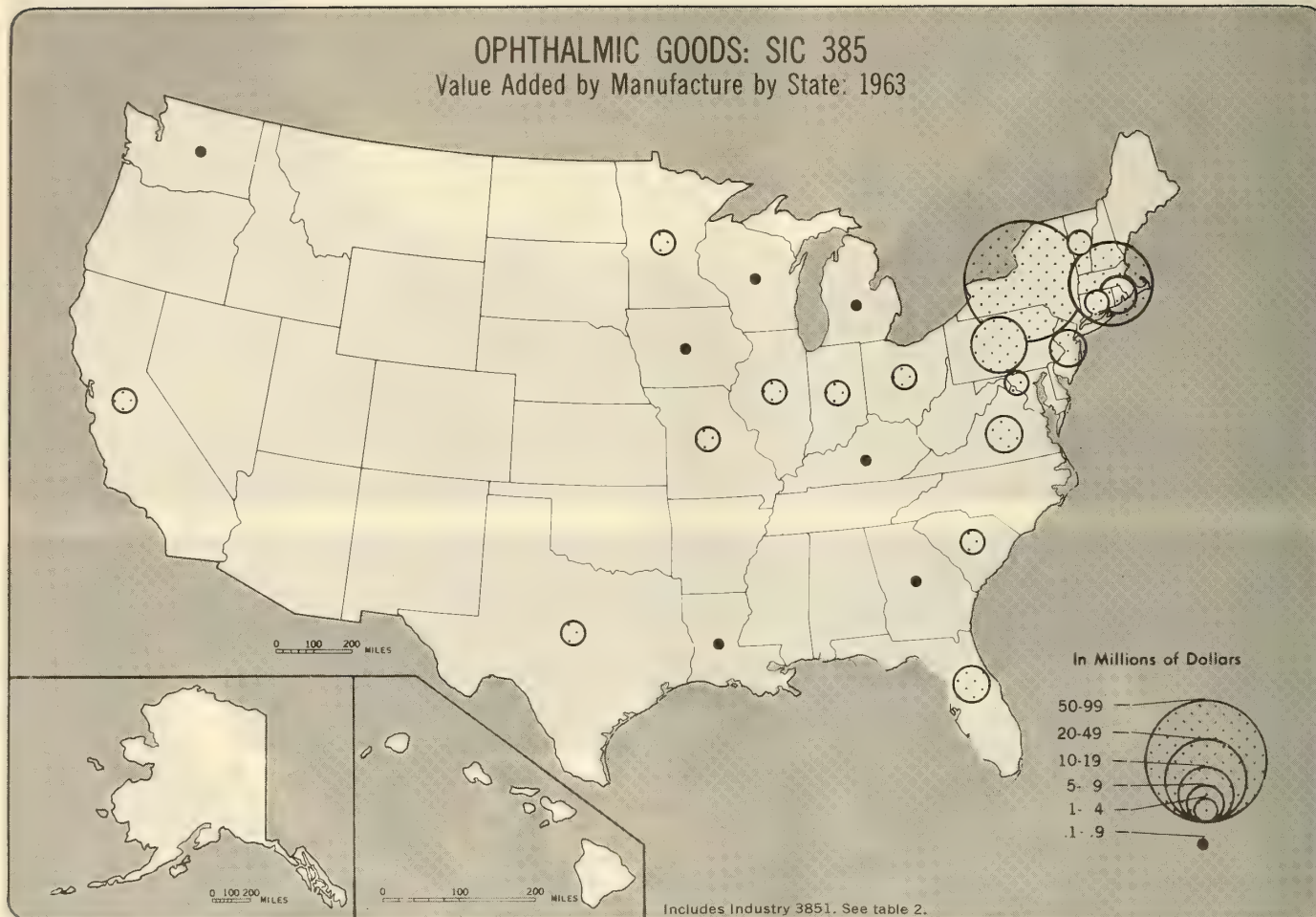


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# OPHTHALMIC GOODS: SIC 385 Value Added by Manufacture by State: 1963



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expendi- tures, new  (\$1,000)	Speci- alization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3811.—SCIENTIFIC INSTRUMENTS														
1963.....	571	594	213	33,084	208,171	22,184	44,584	119,836	358,588	200,034	553,920	16,244	84	56
1962 <sup>1r</sup> .....	(NA)	(NA)	(NA)	51,005	313,229	35,121	71,087	194,780	503,466	236,804	748,902	28,698	(NA)	(NA)
1961 <sup>1r</sup> .....	(NA)	(NA)	(NA)	68,128	453,601	44,498	88,786	244,440	687,711	385,979	1,097,610	27,172	(NA)	(NA)
1960 <sup>1r</sup> .....	(NA)	(NA)	(NA)	72,891	469,352	46,943	97,178	261,412	742,838	427,906	1,166,000	29,366	(NA)	(NA)
1959 <sup>1r</sup> .....	(NA)	(NA)	(NA)	72,786	461,475	49,185	102,956	273,728	729,465	416,833	1,133,707	21,008	(NA)	(NA)
1958(new) <sup>2r</sup> .....	539	559	202	57,249	330,209	38,758	78,017	198,450	481,166	283,104	752,542	16,580	78	67
1958(old) <sup>2r</sup> .....	(NA)	489	171	53,258	312,292	35,862	72,060	187,238	450,695	257,606	697,456	15,926	(NA)	(NA)
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	58,913	339,987	38,343	82,740	200,507	505,709	295,778	761,248	23,769	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	52,321	291,909	36,040	75,046	177,266	440,340	239,666	637,954	19,733	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	46,095	236,965	31,460	65,631	145,050	343,877	193,461	516,417	10,080	(NA)	(NA)
1954 <sup>3</sup> .....	(NA)	370	131	45,315	217,831	30,797	64,264	134,801	340,146	224,203	580,916	8,615	77	64
1953 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	31,394	146,693	22,418	48,711	100,026	238,702	136,962	375,664	8,176	(NA)	(NA)
1952 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	41,494	202,587	27,615	60,493	124,627	277,293	211,032	488,325	8,751	(NA)	(NA)
1951 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	36,724	169,528	23,952	51,925	102,447	180,579	142,588	323,176	14,690	(NA)	(NA)
1950 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	25,592	104,447	16,425	34,392	60,006	128,951	59,923	188,874	6,594	(NA)	(NA)
1949 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	15,357	54,846	10,706	21,295	34,861	77,677	36,213	113,890	2,285	(NA)	(NA)
1947 <sup>3</sup> .....	(NA)	215	93	18,419	56,015	13,526	30,099	37,738	75,922	41,390	117,312	4,489	81	82
1939 <sup>3</sup> .....	(NA)	125	(NA)	(NA)	(NA)	6,529	(NA)	10,067	30,627	11,624	42,251	(NA)	(NA)	(NA)
INDUSTRY 3821.—MECHANICAL MEASURING DEVICES														
1963.....	510	670	258	62,353	388,874	40,383	81,510	222,826	732,529	415,855	1,143,416	30,914	90	83
1962 <sup>1r</sup> .....	(NA)	(NA)	(NA)	65,077	376,233	41,264	85,572	205,410	673,981	406,882	1,073,753	29,626	(NA)	(NA)
1961 <sup>1r</sup> .....	(NA)	(NA)	(NA)	60,067	340,262	37,047	73,904	176,707	591,017	377,789	965,369	25,069	(NA)	(NA)
1960 <sup>1r</sup> .....	(NA)	(NA)	(NA)	59,701	340,524	37,505	76,709	183,594	599,992	365,217	948,679	24,394	(NA)	(NA)
1959 <sup>1r</sup> .....	(NA)	(NA)	(NA)	52,779	288,414	34,534	66,767	158,438	535,978	301,037	824,656	(S)	(NA)	(NA)
1958 <sup>4</sup> .....	586	627	229	50,049	258,488	32,123	62,982	144,873	457,126	262,571	726,823	18,215	86	76
INDUSTRY 3822.—AUTOMATIC TEMPERATURE CONTROLS														
1963.....	89	104	54	31,685	192,301	22,299	45,459	122,154	379,091	158,091	527,358	10,523	82	95
1962 <sup>1r</sup> .....	(NA)	(NA)	(NA)	28,732	167,448	18,787	38,097	95,412	335,527	124,972	448,287	9,505	(NA)	(NA)
1961 <sup>1r</sup> .....	(NA)	(NA)	(NA)	28,251	158,752	18,807	38,614	93,690	324,568	114,855	418,097	13,393	(NA)	(NA)
1960 <sup>1r</sup> .....	(NA)	(NA)	(NA)	28,083	152,040	19,161	38,270	90,249	303,721	108,291	395,548	15,540	(NA)	(NA)
1959 <sup>1r</sup> .....	(NA)	(NA)	(NA)	28,181	151,232	19,190	39,299	91,802	287,681	108,534	392,091	(13,941)	(NA)	(NA)
1958 <sup>4</sup> .....	71	83	44	25,513	128,974	18,049	35,599	81,083	258,969	103,775	359,430	5,989	88	94
INDUSTRY 3831.—OPTICAL INSTRUMENTS AND LENSES														
1963.....	272	280	79	11,924	79,131	8,306	16,728	47,149	131,917	66,557	196,022	6,163	90	61
1962 <sup>1r</sup> .....	(NA)	(NA)	(NA)	8,318	59,019	5,878	12,030	33,800	83,771	46,502	134,153	8,190	(NA)	(NA)
1961 <sup>1r</sup> .....	(NA)	(NA)	(NA)	7,881	51,214	5,428	10,684	29,129	65,731	37,856	103,363	8,556	(NA)	(NA)
1960 <sup>1r</sup> .....	(NA)	(NA)	(NA)	8,041	51,136	5,727	11,629	30,610	79,406	49,099	124,247	3,614	(NA)	(NA)
1959 <sup>1r</sup> .....	(NA)	(NA)	(NA)	8,720	50,742	6,551	13,775	31,654	81,515	56,389	134,764	(S)	(NA)	(NA)
1958.....	222	224	58	7,184	37,586	5,141	10,485	23,459	60,387	42,679	102,966	3,438	90	66
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,717	44,873	6,182	13,219	26,690	81,150	37,344	111,343	(S)	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,564	37,987	5,628	11,593	23,716	70,039	26,698	94,692	2,865	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,115	36,143	6,139	12,629	23,759	60,052	23,217	87,002	(S)	(NA)	(NA)
1954 <sup>3</sup> .....	202	204	60	8,749	38,352	6,683	13,426	25,624	55,371	24,840	83,339	3,816	91	59
1953 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	16,419	73,732	12,494	25,472	49,483	112,699	37,531	150,230	6,023	(NA)	(NA)
1952 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	13,552	58,017	10,599	22,091	42,130	84,172	38,523	122,695	2,194	(NA)	(NA)
1951 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	12,432	50,610	9,699	19,996	35,997	66,944	27,899	94,843	2,779	(NA)	(NA)
1950 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	9,077	47,040	6,769	18,317	23,638	47,890	16,496	64,386	2,532	(NA)	(NA)
1949 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	7,167	25,422	5,327	10,957	17,131	31,856	11,626	43,482	1,243	(NA)	(NA)
1947 <sup>3</sup> .....	(NA)	115	35	8,478	24,737	6,682	10,820	17,965	34,090	11,254	45,344	1,520	93	75
1939 <sup>3</sup> .....	(NA)	31	(NA)	3,016	4,684	2,209	(NA)	3,266	7,159	1,531	8,690	(NA)	(NA)	(NA)
INDUSTRY 3841.—SURGICAL AND MEDICAL INSTRUMENTS														
1963.....	256	294	117	15,145	83,332	11,538	22,916	52,520	168,556	126,856	284,014	10,514	88	74
1962 <sup>1r</sup> .....	(NA)	(NA)	(NA)	12,373	66,998	9,217	18,214	40,787	129,182	93,804	216,740	6,753	(NA)	(NA)
1961 <sup>1r</sup> .....	(NA)	(NA)	(NA)	11,741	61,637	8,893	17,576	38,791	106,966	74,010	181,514	4,780	(NA)	(NA)
1960 <sup>1r</sup> .....	(NA)	(NA)	(NA)	11,630	58,134	8,810	17,604	36,824	96,778	64,161	159,588	4,397	(NA)	(NA)
1959 <sup>1r</sup> .....	(NA)	(NA)	(NA)	10,240	50,402	7,685	15,447	31,550	84,309	57,876	141,961	2,538	(NA)	(NA)
1958 <sup>4</sup> .....	223	231	88	10,293	44,878	8,061	16,162	31,039	85,153	48,944	130,477	2,812	83	76
INDUSTRY 3842.—SURGICAL APPLIANCES AND SUPPLIES														
1963.....	525	704	162	28,267	161,800	18,987	37,904	85,790	370,273	230,054	596,666	17,831	80	90
1962 <sup>1r</sup> .....	(NA)	(NA)	(NA)	28,882	175,897	17,593	35,088	78,422	365,902	230,820	583,653	20,355	(NA)	(NA)

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3842.—SURGICAL APPLIANCES AND SUPPLIES—Continued														
1961 <sup>1r</sup> .....	(NA)	(NA)	(NA)	27,868	164,968	17,118	34,913	73,677	357,119	225,579	556,545	(30,421)	(NA)	(NA)
1960 <sup>1r</sup> .....	(NA)	(NA)	(NA)	27,311	158,396	17,312	34,736	72,860	365,023	226,117	571,583	12,069	(NA)	(NA)
1959 <sup>1r</sup> .....	(NA)	(NA)	(NA)	26,458	148,478	17,561	35,638	71,104	331,665	216,996	547,620	(S)	(NA)	(NA)
1958 <sup>4</sup> .....	553	590	161	24,179	114,867	16,277	31,460	62,122	257,640	200,377	461,846	9,110	84	90
INDUSTRY 3843.—DENTAL EQUIPMENT AND SUPPLIES														
1963.....	267	316	66	8,008	46,080	5,751	11,211	27,144	95,876	52,767	147,805	2,735	94	92
1962 <sup>1r</sup> .....	(NA)	(NA)	(NA)	7,281	39,062	5,113	9,976	22,620	88,006	51,848	139,558	1,887	(X)	(X)
1961 <sup>1r</sup> .....	(NA)	(NA)	(NA)	7,387	38,057	5,226	10,048	22,222	76,278	48,265	124,047	1,286	(X)	(X)
1960 <sup>1r</sup> .....	(NA)	(NA)	(NA)	7,525	38,072	5,411	10,320	23,185	79,503	48,309	125,546	2,819	(X)	(X)
1959 <sup>1r</sup> .....	(NA)	(NA)	(NA)	7,240	36,322	5,231	10,210	22,096	74,972	44,052	118,221	1,764	(X)	(X)
1958.....	240	249	55	7,242	34,773	5,227	10,188	21,077	71,574	44,940	115,667	1,517	95	92
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,796	30,391	4,746	9,688	19,872	70,685	43,100	111,316	1,426	96	93
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,802	28,894	4,894	9,781	18,930	67,200	38,103	102,869	1,544	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,917	28,039	4,927	9,984	18,421	56,489	33,722	86,844	1,442	(NA)	(NA)
1954 <sup>3</sup> .....	193	197	49	7,103	28,206	5,107	10,366	17,974	53,290	30,706	79,171	1,434	95	94
1952 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	7,988	30,678	6,067	11,996	19,248	52,105	30,293	82,398	(NA)	(NA)	(NA)
1951 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	8,266	29,295	6,311	12,544	18,399	47,229	31,252	78,481	(NA)	(NA)	(NA)
1950 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	7,117	23,482	5,230	10,136	14,297	42,980	27,259	70,239	(NA)	(NA)	(NA)
1949 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	7,205	21,869	5,547	10,635	13,767	40,588	25,808	66,396	(NA)	(NA)	(NA)
1947 <sup>3</sup> .....	(NA)	213	50	9,074	25,625	7,132	14,247	17,304	42,925	28,177	71,102	2,386	97	94
1939 <sup>3</sup> .....	(NA)	(NA)	(NA)	5,708	8,499	4,245	(NA)	4,825	18,289	13,258	31,547	(NA)	(NA)	(NA)
1937 <sup>3</sup> .....	(NA)	(NA)	(NA)	5,626	7,952	4,574	(NA)	5,347	18,162	12,717	30,879	(NA)	(NA)	(NA)
INDUSTRY 3851.—OPHTHALMIC GOODS														
1963.....	211	229	109	20,296	96,361	16,467	32,771	68,954	177,898	96,611	272,687	9,085	86	92
1962 <sup>1r</sup> .....	(NA)	(NA)	(NA)	21,068	93,744	17,764	35,553	70,240	159,919	81,690	241,475	7,133	(NA)	(NA)
1961 <sup>1r</sup> .....	(NA)	(NA)	(NA)	19,272	83,677	15,988	31,725	61,104	147,618	72,226	217,790	8,974	(NA)	(NA)
1960 <sup>1r</sup> .....	(NA)	(NA)	(NA)	20,662	84,237	17,135	33,708	63,142	152,830	74,319	225,473	5,685	(NA)	(NA)
1959 <sup>1r</sup> .....	(NA)	(NA)	(NA)	19,488	78,935	16,398	32,399	59,381	146,321	70,881	214,811	5,057	(NA)	(NA)
1958.....	226	246	104	18,223	71,465	15,272	29,988	53,525	136,696	62,010	194,446	5,367	87	98
1954 <sup>3</sup> .....	223	238	101	18,464	64,536	15,355	29,960	48,332	107,059	48,306	159,061	5,042	83	94
1953 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	20,620	70,966	17,047	33,666	54,182	116,436	56,031	172,467	3,974	(NA)	(NA)
1952 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	20,414	70,318	17,182	(NA)	53,467	117,161	56,175	173,336	(NA)	(NA)	(NA)
1951 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	20,261	66,620	17,367	35,949	52,748	107,022	50,283	157,305	3,645	(NA)	(NA)
1949 <sup>1 3</sup> .....	(NA)	(NA)	(NA)	21,904	60,189	18,337	35,274	44,165	98,386	55,263	153,649	(S)	(NA)	(NA)
1947 <sup>3</sup> .....	175	184	97	22,562	57,112	19,847	39,441	46,507	87,205	33,948	121,153	(NA)	86	97
1939 <sup>3</sup> .....	(NA)	91	(NA)	13,497	19,271	10,252	(NA)	12,246	30,745	14,210	44,955	(NA)	(NA)	(NA)
1937 <sup>3</sup> .....	(NA)	79	(NA)	(NA)	(NA)	10,906	(NA)	12,968	30,058	13,462	43,520	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. <sup>1</sup>Revised.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>2</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data. See text for explanation concerning shift from individual instruments to systems.

<sup>3</sup>A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so that the industry is not comparable. The 1957 and earlier figures are on the old SIC definition of the industry.

<sup>4</sup>Data for Alaska and Hawaii are not included.

<sup>5</sup>A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification. Accordingly, the data for 1958-1963 are not comparable with those for earlier years.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3811.—SCIENTIFIC INSTRUMENTS													
Total.....	594	213	33,084	208,171	22,184	44,584	119,836	358,588	200,034	553,920	16,244	r57,249	r481,166
New England.....	66	24	3,465	21,510	2,204	4,450	11,666	34,727	16,669	51,444	2,153	3,974	31,338
Massachusetts....	35	14	2,747	16,978	1,722	3,476	8,860	27,092	11,462	38,773	1,831	2,519	21,398
Connecticut.....	21	7	535	3,489	337	694	2,090	5,771	3,741	9,393	285	1,291	8,514
Middle Atlantic....	159	56	7,874	51,337	5,052	9,903	27,510	89,115	41,252	124,626	2,074	r27,774	r229,488
New York.....	73	22	4,875	33,553	2,735	5,222	15,700	56,646	19,248	70,168	1,002	r11,894	r98,191
New Jersey.....	47	19	2,007	12,324	1,552	3,202	8,222	20,249	14,393	34,192	783	13,866	114,877
Pennsylvania.....	39	15	992	5,460	765	1,479	3,588	12,220	7,611	20,266	289	2,014	16,420
North Central.....	142	48	11,565	72,150	7,956	15,779	44,919	121,430	76,773	198,049	8,302	15,044	134,582
Ohio.....	24	3	294	1,496	227	464	960	3,339	1,864	5,162	98	452	4,221
Illinois.....	56	22	3,019	17,537	1,989	3,981	9,911	36,719	24,524	60,355	2,057	2,229	22,212
Michigan.....	23	12	4,548	32,233	3,379	6,406	22,693	50,930	33,018	83,941	3,493	4,230	44,324
South Atlantic.....	44	20	2,865	14,212	2,084	4,256	8,685	27,561	20,628	46,796	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Maryland.....	14	7	770	4,533	548	1,049	2,964	7,369	4,648	12,501	98	1,489	10,961
Florida.....	8	2	254	1,219	187	363	688	2,305	723	3,046	44	239	690
East South Central.	8	3	180	747	137	293	433	1,380	1,240	2,638	(D)	( <sup>2</sup> )	( <sup>2</sup> )
West South Central.	46	18	1,941	10,441	1,490	2,924	7,326	16,409	11,414	27,592	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	40	15	1,740	9,335	1,360	2,672	6,736	13,228	10,530	23,626	512	2,466	17,263
Mountain.....	14	6	1,645	12,944	782	1,955	4,907	28,968	9,823	40,418	824	534	5,952
Pacific.....	115	38	3,549	24,830	2,479	5,024	14,390	38,998	22,235	62,357	1,284	4,089	39,307
California.....	111	36	3,414	24,027	2,389	4,860	13,950	37,774	21,591	60,520	1,255	4,003	38,627
INDUSTRY 3821.—MECHANICAL MEASURING DEVICES													
Total.....	670	258	62,353	388,874	40,383	81,510	222,826	732,529	415,855	1,143,416	30,914	50,049	457,126
New England.....	79	39	14,642	93,651	8,457	17,058	46,012	163,939	82,895	247,166	7,525	12,527	112,247
Middle Atlantic....	209	82	20,770	131,971	14,165	28,299	80,649	257,993	129,218	381,995	8,738	20,585	186,159
Pennsylvania.....	54	30	11,483	77,130	7,539	15,311	44,856	158,969	77,068	232,166	5,817	( <sup>2</sup> )	( <sup>2</sup> )
East North Central.	156	64	18,921	117,974	12,733	25,853	69,985	222,686	149,044	366,945	10,791	( <sup>2</sup> )	( <sup>2</sup> )
Ohio.....	32	16	4,927	28,108	2,334	4,472	10,245	46,842	29,445	75,807	4,278	3,998	33,117
Illinois.....	56	25	6,737	38,836	4,848	9,747	24,002	86,280	44,629	129,132	2,047	4,144	41,399
West North Central.	23	6	956	4,744	775	1,652	3,526	13,005	6,888	19,885	300	( <sup>2</sup> )	( <sup>2</sup> )
Missouri.....	5	2	108	541	94	161	427	1,001	600	1,623	69	( <sup>2</sup> )	( <sup>2</sup> )
South and West....	203	67	7,064	40,534	4,253	8,648	22,654	74,906	47,810	127,425	3,560	5,209	52,315
Maryland.....	14	3	208	1,406	152	308	661	2,479	1,119	3,490	169	104	967
Oklahoma.....	12	7	475	2,563	340	726	1,691	5,076	2,597	8,358	176	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	26	9	483	2,742	333	687	1,791	7,356	5,060	12,593	85	459	6,521
INDUSTRY 3822.—AUTOMATIC TEMPERATURE CONTROLS													
Total.....	104	54	31,685	192,301	22,299	45,459	122,154	379,091	158,091	527,358	10,523	25,513	258,969
New England.....	10	6	2,620	14,389	1,709	3,884	8,865	26,025	10,224	36,081	640	2,223	16,406
Middle Atlantic....	19	9	2,649	14,977	2,022	3,866	10,296	25,671	12,469	37,886	408	2,280	17,831
New York.....	8	4	268	1,209	230	442	939	2,262	1,965	4,086	77	( <sup>2</sup> )	( <sup>2</sup> )
East North Central.	39	21	12,751	76,825	8,906	17,785	47,907	156,958	68,688	221,784	4,479	( <sup>2</sup> )	( <sup>2</sup> )
Ohio.....	13	9	2,979	16,952	2,367	4,621	11,585	31,078	11,634	43,027	1,100	2,010	17,443
Illinois.....	13	5	5,617	34,879	3,591	7,395	19,935	76,630	26,607	101,415	2,494	3,634	47,574
West North Central.	7	3	7,217	48,753	4,669	9,486	27,552	101,464	36,265	133,682	2,216	( <sup>2</sup> )	( <sup>2</sup> )
South and West....	29	15	6,448	37,357	4,993	10,438	27,534	68,973	30,445	97,925	2,780	5,543	59,003

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3831.—OPTICAL INSTRUMENTS AND LENSES													
Total.....	280	79	11,924	79,131	8,306	16,728	47,149	131,917	66,557	196,022	6,163	7,184	60,387
New England.....	34	14	3,603	27,503	2,162	4,387	13,990	47,166	20,051	66,572	2,133	2,138	19,610
Middle Atlantic....	99	27	4,020	25,144	3,071	6,100	16,991	37,103	20,419	56,888	2,103	3,010	22,810
New York.....	62	16	3,070	18,907	2,243	4,457	12,096	28,162	15,142	43,258	1,428	2,599	20,451
New Jersey.....	14	3	206	1,106	174	319	725	1,677	890	2,611	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Pennsylvania.....	23	8	744	5,131	654	1,324	4,170	7,264	4,387	11,019	(D)	( <sup>2</sup> )	( <sup>2</sup> )
East North Central.	41	10	1,071	6,744	733	1,474	4,010	10,443	5,995	17,515	193	889	6,753
Illinois.....	20	8	682	4,250	473	973	2,587	7,126	2,475	9,426	133	721	5,402
West North Central.	14	4	350	1,660	246	499	1,083	2,888	1,336	3,897	135	114	763
Missouri.....	6	3	282	1,384	197	400	895	2,322	1,105	3,108	98	( <sup>2</sup> )	( <sup>2</sup> )
South.....	21	6	775	3,427	644	1,210	2,398	8,494	7,020	14,584	254	325	4,371
Mountain.....	5	-	14	58	11	22	43	151	30	179	11	708	6,080
Pacific.....	66	18	2,091	14,595	1,439	3,036	8,634	25,672	11,706	36,387	1,334	660	5,738
California.....	59	17	2,020	14,211	1,391	2,938	8,371	25,029	11,197	35,245	1,310	660	5,738
INDUSTRY 3841.—SURGICAL AND MEDICAL INSTRUMENTS													
Total.....	294	117	15,145	83,332	11,538	22,916	52,520	168,556	126,856	284,014	10,514	10,293	85,153
New England.....	34	20	1,965	9,555	1,635	3,350	6,984	20,634	12,682	32,532	2,592	1,799	12,067
Massachusetts....	20	11	645	3,466	479	952	2,092	7,396	4,987	12,182	243	698	5,253
Middle Atlantic....	89	38	5,284	30,412	4,067	7,889	18,400	42,650	53,899	93,215	1,556	4,711	39,473
New York.....	51	22	2,474	12,616	1,906	3,723	8,256	22,282	14,949	35,857	961	2,251	16,188
East North Central.	59	33	2,908	16,232	2,067	4,098	9,940	31,978	24,584	55,530	980	1,310	13,705
Ohio.....	16	9	622	3,163	464	930	2,072	6,280	3,578	9,194	127	389	3,170
Indiana.....	12	6	473	2,699	315	648	1,418	8,342	6,101	14,173	505	( <sup>2</sup> )	( <sup>2</sup> )
Illinois.....	20	14	1,246	6,966	844	1,706	4,216	10,114	7,345	17,514	193	343	2,703
West North Central.	23	10	1,742	8,979	1,448	2,921	6,301	22,587	14,096	35,847	1,238	1,109	8,045
South Atlantic....	16	4	656	3,628	535	1,154	2,755	12,895	5,042	16,013	(D)	78	458
East South Central.	5	3	370	1,572	313	580	1,125	3,813	1,356	4,956	(D)	401	2,984
West South Central.	8	-	37	219	24	48	89	172	173	326	11	20	114
Mountain.....	7	-	37	185	21	38	90	307	282	598	9	20	113
Pacific.....	53	9	2,146	12,550	1,428	2,838	6,836	33,520	14,742	44,997	2,174	845	8,194
California.....	48	9	2,139	12,513	1,421	2,842	6,799	33,393	14,689	44,817	(D)	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3842.—SURGICAL APPLIANCES AND SUPPLIES													
Total.....	704	162	28,267	161,800	18,987	37,904	85,790	370,273	230,054	596,666	17,831	24,179	257,640
New England.....	67	29	3,986	16,996	3,032	5,985	11,691	34,559	23,471	55,852	1,519	2,790	19,003
Connecticut.....	16	13	1,967	8,304	1,351	2,609	5,028	18,513	11,957	29,682	529	1,885	12,891
Middle Atlantic....	172	39	11,036	74,972	6,200	12,821	32,528	165,902	89,073	252,615	7,829	9,646	113,821
New York.....	99	15	2,930	15,594	1,991	3,989	8,592	37,023	20,467	57,694	1,034	2,665	32,978
East North Central.	152	41	6,385	38,444	4,553	8,973	21,692	108,893	67,956	178,807	5,442	7,716	90,633
Ohio.....	47	14	1,148	5,383	859	1,668	3,256	10,938	6,040	16,867	191	1,394	9,250
Illinois.....	51	16	3,910	27,042	2,704	5,450	14,789	82,866	53,658	138,690	4,893	4,675	67,521
Michigan.....	29	6	819	3,753	637	1,172	2,350	6,705	6,930	13,652	119	632	4,021
Wisconsin.....	19	5	483	2,160	337	652	1,228	8,170	1,216	9,278	231	( <sup>2</sup> )	( <sup>2</sup> )
West North Central.	56	13	1,353	6,294	917	1,820	3,620	11,038	10,516	21,719	421	1,287	9,467
Minnesota.....	18	5	600	3,152	341	710	1,578	5,433	5,139	10,850	243	( <sup>2</sup> )	( <sup>2</sup> )
Missouri.....	19	6	620	2,520	482	923	1,684	4,445	4,728	9,075	140	636	3,784
South.....	134	17	3,436	13,125	2,820	5,670	9,442	27,738	25,369	52,797	1,619	2,740	24,716
Louisiana.....	6	2	212	734	151	336	515	1,508	1,166	2,408	129	969	8,999
Mountain.....	19	4	253	1,244	163	327	671	2,055	1,767	3,770	76		
Pacific.....	104	19	1,818	10,725	1,302	2,308	6,146	20,088	11,902	31,106	925		
California.....	93	19	1,769	10,489	1,259	2,237	5,939	19,572	11,624	30,313	910		

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3843.—DENTAL EQUIPMENT AND SUPPLIES													
Total.....	316	66	8,008	46,080	5,751	11,211	27,144	95,876	52,767	147,805	2,735	7,242	71,574
New England.....	16	4	667	3,532	470	905	2,030	5,267	4,908	10,124	199	551	4,429
Middle Atlantic....	101	27	3,892	22,611	2,936	5,714	14,245	51,169	25,492	76,439	1,739	4,077	43,084
New York.....	63	13	2,093	14,264	1,438	2,915	8,316	29,571	19,907	49,436	1,075	2,317	26,251
East North Central.	67	15	1,613	9,347	1,070	2,130	5,345	18,995	9,612	28,382	252	1,514	13,031
Ohio.....	17	5	577	3,058	388	756	1,871	6,244	2,816	8,879	70	596	4,724
Illinois.....	32	7	724	4,305	455	892	2,287	8,531	4,869	13,302	42	698	6,204
West North Central.	12	3	131	1,033	85	168	529	1,460	1,456	2,928	13	102	964
South.....	33	7	669	3,660	429	809	1,518	7,685	4,662	12,469	193	530	4,948
Mountain.....	17	4	382	2,123	284	553	1,267	3,707	2,408	5,620	131	188	1,990
Colorado.....	8	3	336	1,884	245	479	1,065	3,305	2,103	4,888	94	( <sup>2</sup> )	( <sup>2</sup> )
Pacific.....	70	6	654	3,774	477	932	2,210	7,593	4,229	11,843	208	280	3,128
California.....	62	5	531	3,123	383	738	1,795	6,236	3,536	9,758	(D)	( <sup>2</sup> )	( <sup>2</sup> )
INDUSTRY 3851.—OPHTHALMIC GOODS													
Total.....	229	109	20,296	96,361	16,467	32,771	68,954	177,898	96,611	272,687	9,085	18,223	136,696
New England.....	32	22	5,623	24,625	4,783	9,251	18,698	58,554	26,829	85,020	3,458	4,681	41,824
Rhode Island.....	14	7	964	3,711	838	1,546	2,801	5,872	4,185	10,029	198	863	4,519
Middle Atlantic....	103	47	9,742	50,674	7,745	15,608	35,518	79,601	39,840	118,899	4,025	9,872	74,126
New York.....	74	34	7,679	40,754	6,095	12,362	28,646	61,488	27,645	89,464	3,447	8,190	60,417
New Jersey.....	16	5	723	3,486	590	1,188	2,278	7,335	4,038	10,716	267	815	7,687
Pennsylvania.....	13	8	1,340	6,434	1,060	2,058	4,594	10,778	8,157	18,719	311	867	6,022
East North Central.	34	11	1,115	5,700	848	1,640	3,947	10,455	6,101	15,937	495	674	5,141
Ohio.....	10	3	236	1,051	198	403	815	1,548	1,130	2,775	(D)	226	1,078
Illinois.....	12	5	485	2,644	347	642	1,638	3,902	3,181	7,103	314	180	1,685
West North Central.	18	12	872	3,645	744	1,523	2,805	6,664	4,356	10,927	243	664	3,848
Missouri.....	7	5	469	1,934	414	871	1,650	3,157	2,532	5,643	33	424	2,218
South Atlantic.....	16	9	2,357	9,254	1,865	3,788	6,159	17,502	16,145	33,338	709	1,823	8,616
Florida.....	7	4	618	2,787	381	763	1,378	5,901	8,437	14,027	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Mountain.....	3	-	14	52	12	24	39	67	42	109	4	194	1,250
Pacific.....	10	4	232	1,101	192	362	872	2,007	1,367	3,475	46		
All other divisions	13	4	341	1,310	278	575	916	3,048	1,931	4,982	105		

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. <sup>1</sup>Revised.

<sup>2</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3811, Scientific Instruments: New England—Maine, 1 (20-99); New Hampshire, 1 (1-19); Vermont, 3 (20-99); Rhode Island, 5 (110); East North Central—Indiana, 8 (20-99); Wisconsin, 7 (1,809); West North Central—Minnesota, 4 (361); Iowa, 3 (1,077); Missouri, 11 (145); South Dakota, 1 (1-19); Nebraska, 2 (20-99); Kansas, 3 (222); South Atlantic—Delaware, 2 (20-99); District of Columbia, 1 (1-19); Virginia, 10 (523); West Virginia, 3 (148); North Carolina, 5 (1,041); Georgia, 1 (20-99); East South Central—Kentucky, 1 (1-19); Tennessee, 4 (114); Alabama, 1 (1-19); Mississippi, 2 (20-99); West South Central—Louisiana, 2 (100-249); Oklahoma, 4 (20-99); Mountain—Idaho, 1 (1-19); Wyoming, 2 (20-99); Colorado, 6 (168); Arizona, 5 (1,403); Pacific—Washington, 1 (20-99); Oregon, 3 (100-249).

SIC 3821, Mechanical Measuring Devices: New England—Maine, 1 (1-19); New Hampshire, 5 (100-249); Vermont, 3 (500-999); Massachusetts, 35 (7,855); Rhode Island, 4 (500-999); Connecticut, 31 (5,000-9,999); Middle Atlantic—New York, 102 (5,000-9,999); New Jersey, 53 (2,565); East North Central—Indiana, 15 (500-999); Michigan, 38 (5,696); Wisconsin, 15 (500-999); West North Central—Minnesota, 8 (20-99); Iowa, 8 (500-999); Nebraska, 1 (100-249); Kansas, 1 (1-19); South Atlantic—Delaware, 1 (1-19); District of Columbia, 1 (1-19); Virginia, 2 (20-99); West Virginia, 1 (20-99); North Carolina, 3 (20-99); South Carolina, 1 (1-19); Georgia, 1 (250-499); Florida, 10 (207); East South Central—Kentucky, 2 (100-249); Tennessee, 5 (20-99); Alabama, 1 (1-19); Mississippi, 1 (1-19); West South Central—Arkansas, 3 (20-99); Mountain—Montana, 1 (20-99); Wyoming, 1 (1-19); Colorado, 5 (20-99); New Mexico, 2 (100-249); Arizona, 3 (1-19); Utah, 1 (1-19); Pacific—Washington, 4 (20-99); Oregon, 4 (100-249); California, 98 (4,492).

SIC 3822, Automatic Temperature Controls: New England—New Hampshire, 1 (20-99); Massachusetts, 5 (2,083); Rhode Island, 1 (20-99); Connecticut, 3 (250-499); Middle Atlantic—New Jersey, 6 (551); Pennsylvania, 5 (1,830); East North Central—Indiana, 3 (1,000-2,499); Michigan, 6 (851); Wisconsin, 4 (1,000-2,499); West North Central—Minnesota, 2 (5,000-9,999); Iowa, 2 (1-19); Missouri, 2 (1,000-2,499); Kansas, 1 (1-19); South Atlantic—Maryland, 2 (200-249); Virginia, 1 (1-19); Florida, 3 (164); East South Central—Kentucky, 1 (250-499); Tennessee, 1 (1,000-2,499); West South Central—Texas, 3 (1-19); Mountain—New Mexico, 1 (1-19); Utah, 1 (1-19); Pacific—Washington, 1 (1-19); Oregon, 1 (20-99); California, 14 (4,612).

Footnotes continued on next page



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

## Footnotes for table 2-38A—Continued

- SIC 3831, Optical Instruments and Lenses: New England—New Hampshire, 1 (250-499); Massachusetts, 25 (1,249); Rhode Island, 2 (1-19); Connecticut, 6 (1,927); East North Central—Ohio, 8 (20-99); Indiana, 2 (1-19); Michigan, 7 (250-499); Wisconsin, 4 (20-99); West North Central—Minnesota, 7 (20-99); Nebraska, 1 (1-19); South Atlantic—Maryland, 5 (20-99); West Virginia, 4 (278); Florida, 4 (145); East South Central—Mississippi, 1 (1-19); West South Central—Arkansas, 1 (1-19); Oklahoma, 1 (1-19); Texas, 5 (245); Mountain—Colorado, 3 (1-19); Arizona, 2 (1-19); Pacific—Washington, 3 (20-99); Oregon, 4 (1-19).
- SIC 3841, Surgical and Medical Instruments: New England—New Hampshire, 2 (20-99); Vermont, 1 (1-19); Rhode Island, 2 (20-99); Connecticut, 9 (1,223); Middle Atlantic—New Jersey, 23 (2,210); Pennsylvania, 15 (600); East North Central—Michigan, 8 (281); Wisconsin, 3 (286); West North Central—Minnesota, 6 (20-99); Iowa, 2 (1-19); Missouri, 11 (685); Nebraska, 4 (1,002); South Atlantic—Maryland, 2 (1-19); District of Columbia, 1 (1-19); West Virginia, 1 (1-19); North Carolina, 2 (1-19); South Carolina, 2 (1-19); Georgia, 2 (20-99); Florida, 6 (588); East South Central—Tennessee, 3 (250-499); Mississippi, 2 (20-99); West South Central—Arkansas, 1 (1-19); Oklahoma, 1 (1-19); Texas, 6 (20-99); Mountain—Colorado, 6 (20-99); Utah, 1 (1-19); Pacific—Washington, 5 (1-19).
- SIC 3842, Surgical Appliances and Supplies: New England—New Hampshire, 6 (20-99); Vermont, 1 (1-19); Massachusetts, 36 (1,000-2,499); Rhode Island, 8 (500-999); Middle Atlantic—New Jersey, 29 (4,746); Pennsylvania, 44 (3,360); East North Central—Indiana, 6 (20-99); West North Central—Iowa, 6 (20-99); North Dakota, 1 (1-19); South Dakota, 1 (1-19); Nebraska, 5 (20-99); Kansas, 6 (20-99); South Atlantic—Maryland, 8 (20-99); District of Columbia, 3 (20-99); Virginia, 3 (1-19); West Virginia, 7 (250-499); North Carolina, 13 (711); South Carolina, 5 (1,000-2,499); Georgia, 7 (20-99); Florida, 27 (156); East South Central—Kentucky, 9 (100-249); Tennessee, 12 (182); Alabama, 5 (20-99); Mississippi, 2 (1-19); West South Central—Arkansas, 1 (1-19); Oklahoma, 3 (1-19); Texas, 23 (424); Mountain—Colorado, 10 (100-249); New Mexico, 1 (1-19); Arizona, 2 (20-99); Utah, 6 (20-99); Pacific—Washington, 5 (1-19); Oregon, 5 (20-99); Alaska, 1 (1-19).
- SIC 3843, Dental Equipment and Supplies: New England—Maine, 1 (1-19); Massachusetts, 11 (100-249); Connecticut, 4 (419); Middle Atlantic—New Jersey, 11 (159); Pennsylvania, 27 (1,640); East North Central—Indiana, 7 (20-99); Michigan, 7 (212); Wisconsin, 4 (1-19); West North Central—Minnesota, 2 (1-19); Iowa, 3 (20-99); Missouri, 6 (20-99); South Dakota, 1 (1-10); South Atlantic—Delaware, 2 (250-499); Maryland, 5 (101); District of Columbia, 2 (1-19); Virginia, 3 (117); North Carolina, 1 (100-249); Florida, 3 (1-19); East South Central—Kentucky, 2 (20-99); Tennessee, 2 (1-19); Alabama, 2 (1-19); West South Central—Oklahoma, 1 (1-19); Texas, 10 (20-99); Mountain—Montana, 4 (20-99); Idaho, 1 (1-19); Arizona, 2 (1-19); Utah, 2 (1-19); Pacific—Washington, 4 (1-19); Oregon, 4 (100-249).
- SIC 3851, Ophthalmic Goods: New England—Maine, 1 (1-19); Vermont, 1 (250-499); Massachusetts, 13 (3,988); Connecticut, 3 (250-499); East North Central—Indiana, 5 (250-499); Michigan, 5 (20-99); Wisconsin, 2 (20-99); West North Central—Minnesota, 8 (250-499); Iowa, 2 (20-99); Nebraska, 1 (1-19); South Atlantic—Maryland, 2 (250-499); Virginia, 2 (500-999); North Carolina, 3 (1-19); South Carolina, 1 (250-499); Georgia, 1 (20-99); East South Central—Kentucky, 3 (20-99); Tennessee, 2 (1-19); West South Central—Louisiana, 1 (1-19); Oklahoma, 1 (1-19); Texas, 6 (251); Mountain—Colorado, 1 (1-19); Pacific—Washington, 1 (20-99); California, 9 (100-249).
- <sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

TABLE 3. Detailed Statistics: 1963

Item	Scientific instruments (SIC 3811)	Mechanical measuring devices (SIC 3821)	Automatic temperature controls (SIC 3822)	Optical instruments and lenses (SIC 3831)	Surgical and medical instruments (SIC 3841)	Surgical appliances and supplies (SIC 3842)	Dental equipment and supplies (SIC 3843)	Ophthalmic goods (SIC 3851)
Primary product specialization ratio <sup>1</sup> .....	.84	.90	.82	.90	.88	.80	.94	.86
Coverage ratio <sup>2</sup> .....	.56	.83	.95	.61	.74	.90	.92	.92
Establishments, total.....number..	594	670	104	280	294	704	316	229
With 1 to 19 employees.....do....	381	412	50	201	177	542	250	120
With 20 to 99 employees.....do....	154	155	21	51	82	108	47	75
With 100 employees or more.....do....	59	103	33	28	35	54	19	34
Proprietors and working partners.....do....	188	207	16	112	79	315	152	70
All employees (average for the year).....do....	33,084	62,353	31,685	11,924	15,145	28,267	8,008	20,296
Payroll (all employees), total for year.....\$1,000..	208,171	388,874	192,301	79,131	83,332	161,800	46,080	96,361
Production workers:								
Average for the year.....number..	22,184	40,383	22,299	8,306	11,538	18,987	5,751	16,467
March.....do....	22,358	40,338	22,109	8,196	11,570	18,364	5,724	16,415
May.....do....	22,041	40,367	22,335	8,166	11,626	18,987	5,575	16,705
August.....do....	22,291	40,459	22,352	8,345	11,635	19,010	5,610	16,067
November.....do....	22,046	40,315	22,406	8,509	11,348	19,588	5,888	16,689
Man-hours.....1,000..	44,584	81,510	45,459	16,728	22,916	37,904	11,211	32,771
January-March.....do....	11,054	20,486	11,233	4,196	5,753	9,194	2,826	8,030
April-June.....do....	11,194	20,474	11,426	4,174	5,806	9,699	2,836	8,470
July-September.....do....	10,946	19,467	11,206	3,958	5,532	9,292	2,697	7,566
October-December.....do....	11,390	21,083	11,594	4,400	5,825	9,719	2,852	8,705
Wages.....\$1,000..	119,836	222,826	122,154	47,149	52,520	85,790	27,144	68,954
Cost of materials, etc., total.....do....	200,034	415,855	158,091	66,557	126,856	230,054	52,767	96,611
Materials, parts, containers, and supplies consumed.....do....	166,172	358,337	141,812	53,059	91,949	175,762	45,522	87,247
Cost of resales.....do....	21,195	34,511	10,181	5,050	28,755	35,759	5,232	4,564
Fuels consumed.....do....	1,048	2,155	954	385	532	1,091	383	1,071
Electric energy:								
Purchased:								
Quantity.....million kw.-hrs..	177	355	177	53	62	158	29	141
Cost.....\$1,000..	2,747	5,224	2,375	1,182	1,100	1,944	559	1,793
Generated less sold.....million kw.-hrs..	-	(D)	-	(D)	-	-	(D)	(D)
Contract work.....\$1,000..	8,872	15,628	2,769	6,881	4,520	15,498	1,071	1,936
Value of shipments (including resales), total.....do....	553,920	1,143,416	527,358	196,022	284,014	596,666	147,805	272,687
Value of resales.....do....	32,928	47,579	15,221	8,700	34,184	62,226	8,445	6,235
Value added by manufacture, adjusted.....do....	358,588	732,529	379,091	131,917	168,556	370,273	95,876	177,898
Manufacturers' inventories:								
Beginning of year, total.....do....	115,571	250,064	98,747	40,151	47,279	95,290	32,824	70,683
Finished products.....do....	21,829	54,203	30,621	10,337	16,842	30,891	9,719	32,413
Work-in-process.....do....	64,545	115,649	49,048	24,477	13,901	31,887	16,057	25,592
Materials, supplies, fuel, etc.....do....	29,197	80,212	19,078	5,337	16,536	32,512	7,048	12,678
End of year, total.....do....	122,106	256,524	110,772	42,960	54,096	100,187	33,671	72,663
Finished products.....do....	22,455	48,565	39,048	10,676	22,526	31,885	11,141	33,195
Work-in-process.....do....	69,721	126,160	50,445	26,590	19,615	34,554	15,473	26,632
Materials, supplies, fuel, etc.....do....	29,930	81,799	21,279	5,694	11,955	33,748	7,057	12,836
Expenditures for plant and equipment, total.....do....	18,825	31,840	11,185	6,861	10,713	18,364	2,802	9,352
New, total.....do....	16,244	30,914	10,523	6,163	10,514	17,831	2,735	9,085
New structures and additions to plant.....do....	6,219	11,914	1,448	2,140	3,253	6,375	632	851
New machinery and equipment.....do....	10,025	19,000	9,075	4,023	7,261	11,456	2,103	8,234
Used plant and equipment.....do....	2,581	926	662	698	199	533	67	267
Selected operating ratios:								
Payroll/Total employment.....	6,292	6,237	6,050	6,636	5,502	5,724	5,754	4,748
Production workers/Total employment.....	.67	.65	.71	.70	.76	.67	.72	.81
Man-hours/Production workers.....	2,010	2,018	2,008	2,014	1,986	1,996	1,949	1,990
Production worker wages/Man-hours.....	2.69	2.73	2.69	2.82	2.29	2.26	2.42	2.10
Cost of materials and payrolls/Total value of shipments....	.74	.70	.66	.74	.74	.66	.67	.74
Cost of materials/Total value of shipments.....	.36	.36	.30	.34	.45	.39	.36	.35
Adjusted value added/Total employment.....	10,839	11,748	11,964	11,063	11,129	13,088	11,973	8,675
Salaries and wages/Adjusted value added.....	.58	.53	.51	.60	.49	.44	.48	.54

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3811.—SCIENTIFIC INSTRUMENTS											
Establishments.....number..	594	189	101	91	101	53	35	15	3	4	2
All employees:											
Total.....do....	33,084	350	671	1,226	3,312	3,632	5,536	5,482	1,984	10,891	(D)
Payroll.....\$1,000..	208,171	1,719	3,400	6,612	19,942	20,703	33,910	32,423	11,056	78,406	(D)
Value added, adjusted.....do....	358,588	3,832	6,793	12,385	32,519	37,559	60,797	55,946	22,839	125,918	(D)
Value of shipments.....do....	553,920	5,857	10,637	19,310	53,260	60,639	102,367	94,345	35,138	172,367	(D)
Capital expenditures, new...do....	16,244	187	262	337	1,317	1,027	2,677	2,899	909	6,629	(D)
INDUSTRY 3821.—MECHANICAL MEASURING DEVICES											
Establishments.....number..	670	236	84	92	99	56	52	24	12	12	3
All employees:											
Total.....do....	62,353	437	548	1,243	3,148	3,717	8,729	8,424	8,007	19,244	8,856
Payroll.....\$1,000..	388,874	2,189	3,017	7,016	18,260	21,447	54,021	48,077	46,006	130,529	58,312
Value added, adjusted.....do....	732,529	4,393	5,445	16,344	33,828	38,813	111,833	117,339	78,063	225,722	100,749
Value of shipments.....do....	1,143,416	7,298	8,757	24,278	52,582	66,373	171,663	186,460	136,270	313,550	176,185
Capital expenditures, new...do....	30,914	1,267	223	486	1,390	1,684	4,069	3,034	3,518	10,039	5,204
INDUSTRY 3822.—AUTOMATIC TEMPERATURE CONTROLS											
Establishments.....number..	104	23	18	9	13	8	5	7	11	8	2
All employees:											
Total.....do....	31,685	30	125	113	376	1,522	(D)	2,912	7,472	19,135	(D)
Payroll.....\$1,000..	192,301	197	685	622	2,276	6,864	(D)	25,198	45,204	111,255	(D)
Value added, adjusted.....do....	379,091	445	1,308	894	4,560	18,408	(D)	30,153	94,878	228,445	(D)
Value of shipments.....do....	527,358	692	2,401	1,347	7,222	30,455	(D)	43,205	134,181	307,855	(D)
Capital expenditures, new...do....	10,523	20	93	(D)	105	476	(D)	1,122	2,561	6,146	(D)
INDUSTRY 3831.—OPTICAL INSTRUMENTS AND LENSES											
Establishments.....number..	280	103	51	47	38	13	19	6	1	2	-
All employees:											
Total.....do....	11,924	194	339	655	1,232	918	3,077	5,509	(D)	(D)	-
Payroll.....\$1,000..	79,131	921	2,048	3,427	7,492	6,009	19,383	39,851	(D)	(D)	-
Value added, adjusted.....do....	131,917	2,087	3,822	6,043	12,997	9,494	34,673	62,801	(D)	(D)	-
Value of shipments.....do....	196,022	3,005	6,139	8,576	18,875	12,938	51,214	95,275	(D)	(D)	-
Capital expenditures, new...do....	6,163	143	168	275	333	685	1,680	2,879	(D)	(D)	-
INDUSTRY 3841.—SURGICAL AND MEDICAL INSTRUMENTS											
Establishments.....number..	294	93	48	36	51	31	22	7	5	1	-
All employees:											
Total.....do....	15,145	140	335	484	1,637	2,097	3,493	2,276	4,683	(D)	-
Payroll.....\$1,000..	83,332	779	1,741	2,570	8,102	11,181	17,237	13,831	27,891	(D)	-
Value added, adjusted.....do....	168,556	1,971	5,725	4,103	14,191	20,690	39,108	25,899	56,869	(D)	-
Value of shipments.....do....	284,014	3,167	8,177	6,469	25,113	31,554	68,996	37,551	102,987	(D)	-
Capital expenditures, new...do....	10,514	71	99	173	368	815	3,396	1,252	4,340	(D)	-
INDUSTRY 3842.—SURGICAL APPLIANCES AND SUPPLIES											
Establishments.....number..	704	300	148	94	65	43	27	17	6	3	1
All employees:											
Total.....do....	28,267	601	1,000	1,253	1,885	2,909	4,474	5,691	10,454	(D)	(D)
Payroll.....\$1,000..	161,800	2,862	4,994	5,880	8,254	14,433	20,885	26,964	77,528	(D)	(D)
Value added, adjusted.....do....	370,273	6,112	9,234	11,340	16,856	26,676	39,879	67,810	192,366	(D)	(D)
Value of shipments.....do....	596,666	9,505	14,318	18,030	27,193	49,484	67,374	117,729	293,033	(D)	(D)
Capital expenditures, new...do....	17,831	298	303	311	482	1,160	1,160	2,786	11,331	(D)	(D)
INDUSTRY 3843.—DENTAL EQUIPMENT AND SUPPLIES											
Establishments.....number..	316	172	48	30	29	18	13	3	3	-	-
All employees:											
Total.....do....	8,008	278	312	402	834	1,349	2,017	815	2,001	-	-
Payroll.....\$1,000..	46,080	1,345	1,815	2,446	4,890	7,621	11,637	4,523	11,803	-	-
Value added, adjusted.....do....	95,876	3,125	3,270	4,205	9,151	15,861	22,985	8,497	28,782	-	-
Value of shipments.....do....	147,805	5,440	5,857	8,685	13,611	29,827	31,169	15,381	37,835	-	-
Capital expenditures, new...do....	2,735	76	46	66	164	745	448	221	969	-	-

See footnotes at end of table.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963—Continued

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
	INDUSTRY 3851.—OPHTHALMIC GOODS										
Establishments.....number..	229	56	34	30	34	41	16	15	1	-	2
All employees:											
Total.....do....	20,296	117	230	422	1,047	2,852	2,541	13,087	(D)	-	(D)
Payroll.....\$1,000..	96,361	514	1,028	1,818	4,946	12,321	10,979	64,755	(D)	-	(D)
Value added, adjusted.....do....	177,898	929	1,851	3,306	8,683	22,146	20,585	120,398	(D)	-	(D)
Value of shipments.....do....	272,687	1,596	2,938	5,725	14,837	37,613	32,613	177,365	(D)	-	(D)
Capital expenditures, new...do....	9,085	38	58	96	216	782	825	7,070	(D)	-	(D)

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(1,000)	(1,000)	(1,000)	(1,000)	Col. B Col. B+C (percent)	(1,000)	(1,000)	(1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3811	Scientific instruments.....1963..	553,920	405,944	79,972	68,004	84	722,105	405,944	316,161	56
	1958..	752,542	509,632	146,608	96,302	78	758,639	509,632	249,007	67
3821	Mechanical measuring devices.....1963..	1,143,416	818,673	207,267	117,476	90	983,840	818,673	165,167	83
	1958..	726,823	578,728	92,618	55,477	86	760,780	578,728	182,052	76
3822	Automatic temperature controls....1963..	527,358	409,472	90,573	27,313	82	431,612	409,472	22,140	95
	1958..	359,430	301,780	40,609	17,041	88	319,855	301,780	18,075	94
3831	Optical instruments and lenses....1963..	196,022	164,965	17,446	13,611	90	269,528	164,965	104,563	61
	1958..	102,966	75,958	8,243	18,765	90	115,481	75,958	39,523	66
3841	Surgical and medical instruments..1963..	284,014	214,934	29,129	39,951	88	290,621	214,934	75,687	74
	1958..	130,477	98,707	20,930	10,840	83	130,570	98,707	31,863	76
3842	Surgical appliances and supplies..1963..	596,666	414,545	105,379	76,742	80	461,819	414,545	47,274	90
	1958..	461,846	326,400	63,908	71,538	84	362,029	326,400	35,629	90
3843	Dental equipment and supplies....1963..	147,805	127,693	8,801	11,311	94	139,532	127,693	11,839	92
	1958..	115,667	101,848	5,139	8,680	95	110,680	101,848	8,832	92
3851	Ophthalmic goods.....1963..	272,687	225,702	37,421	9,564	86	244,143	225,702	18,441	92
	1958..	194,446	164,658	24,137	5,651	87	167,951	164,658	3,293	98

Note: See Introduction for an explanation of terms used.

Standard Note: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. Revised.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products); (b) products classified in other industries (secondary products); and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Scientific instruments (SIC 3811)	Other industries
<b>SCIENTIFIC INSTRUMENTS INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	553,920	(X)
	Primary products.....	722,105	405,944	316,161
38111	Aircraft, flight, nautical, and navigational instruments and automatic pilots.....	410,591	184,309	226,282
38112	Laboratory and scientific instruments.....	195,138	115,752	79,386
38113	Surveying and drafting instruments and laboratory furniture.....	104,045	94,487	9,558
38110	Scientific instruments, n.s.k.....	12,331	11,396	935
	Secondary products.....	(X)	79,972	(X)
25223	Cabinets and cases.....	(X)	2,401	(X)
38211	Aircraft engine instruments, except flight.....	(X)	6,385	(X)
38213	Industrial process instruments.....	(X)	6,452	(X)
38311	Optical instruments and lenses, except sighting and fire-control equipment.....	(X)	2,024	(X)
	Other secondary products.....	(X)	62,710	(X)
25224	Other metal office furniture, including tables, stands, etc.....	(X)	(2-5)	(X)
25410	Wood partitions, shelving, lockers, and office and store fixtures.....	(X)	(2-5)	(X)
36215	Motor generator sets and other rotating equipment.....	(X)	(2-5)	(X)
36624	Electronic navigational aids (except missile-borne and space vehicle-borne equipment).....	(X)	(2-5)	(X)
36625	Electronic search and detection apparatus, including radar, infrared, and sonar.....	(X)	(2-5)	(X)
36628	Missile-borne and space vehicle-borne navigation and guidance systems and equipment.....	(X)	(10-20)	(X)
38312	Sighting and fire-control equipment made from lenses, prisms, etc., produced in this plant..	(X)	(2-5)	(X)
38410	Surgical and medical instruments and apparatus.....	(X)	(2-5)	(X)
	Miscellaneous receipts.....	(X)	68,004	(X)
	Contract work.....	(X)	6,194	(X)
	Resales.....	(X)	32,928	(X)
	Receipts for installation (or construction of products of this establishment).....	(X)	2,514	(X)
	Receipts for research and development work.....	(X)	16,060	(X)
	Receipts for repair work.....	(X)	6,572	(X)
	Other miscellaneous receipts.....	(X)	3,736	(X)
38111	Listing of other industries with over \$2 million shipments of each primary product class:			
3611	Electric measuring instruments.....	(X)	(X)	(2-5)
3621	Motors and generators.....	(X)	(X)	5,100
3662	Radio, TV communications equipment.....	(X)	(X)	169,612
3679	Electronic components, n.e.c.....	(X)	(X)	4,207
3721	Aircraft.....	(X)	(X)	(5-10)
3729	Aircraft equipment, n.e.c.....	(X)	(X)	5,575
3742	Railroad and street cars.....	(X)	(X)	(over 2)
3821	Mechanical measuring devices.....	(X)	(X)	11,726
3871	Watches and clocks.....	(X)	(X)	(5-10)
38112	3611 Electric measuring devices.....	(X)	(X)	9,330
	3662 Radio, TV communications equipment.....	(X)	(X)	5,755
	3673 Electron tubes, transmitting.....	(X)	(X)	(over 2)
	3729 Aircraft equipment, n.e.c.....	(X)	(X)	(over 2)
	3821 Mechanical measuring devices.....	(X)	(X)	9,775
38113	3589 Service industry machines, n.e.c.....	(X)	(X)	(over 2)
<b>MECHANICAL MEASURING DEVICES INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	1,143,416	(X)
	Primary products.....	983,840	818,673	165,167
38211	Aircraft engine instruments, except flight.....	66,383	41,309	25,074
38212	Integrating meters, nonelectrical type.....	163,716	159,624	4,092
38213	Industrial process instruments.....	522,385	451,780	70,605
38214	Motor vehicle instruments, except electric.....	95,776	63,581	32,195
38216	Other mechanical measuring and controlling instruments.....	117,171	84,407	32,764
38210	Mechanical measuring devices, n.s.k.....	18,409	17,972	437

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Mechanical measuring devices (SIC 3821)	Other industries
MECHANICAL MEASURING DEVICES INDUSTRY--Continued				
	Secondary products.....	(X)	207,267	(X)
34941	Metal valves for piping systems (except plumbing and heating valves).....	(X)	8,305	(X)
35712	Computing and accounting machines, including cash registers.....	(X)	4,245	(X)
36112	Test equipment for testing electrical, radio, and communication circuits, and motors.....	(X)	4,932	(X)
36113	Other electrical measuring instruments.....	(X)	16,991	(X)
36626	Electronic military, industrial, and commercial equipment, n.e.c.....	(X)	6,916	(X)
38111	Aircraft, flight, nautical, and navigational instruments and automatic pilots.....	(X)	11,726	(X)
38112	Laboratory and scientific instruments.....	(X)	9,775	(X)
38220	Automatic temperature controls.....	(X)	9,525	(X)
38311	Optical instruments and lenses, except sighting and fire-control equipment.....	(X)	3,470	(X)
	Other secondary products.....	(X)	131,382	(X)
34295	Other hardware.....	(X)	(over 2)	(X)
34432	Fabricated steel plate, including stacks and weldments.....	(X)	(2-5)	(X)
34618	Other stamped and pressed metal end products.....	(X)	(2-5)	(X)
35441	Special dies and tools, die sets, jigs, and fixtures.....	(X)	(2-5)	(X)
35663	Other mechanical power transmission equipment.....	(X)	(over 2)	(X)
35690	General industrial machinery, n.e.c.....	(X)	(2-5)	(X)
35990	Carburetors, pistons, and other machine shop products.....	(X)	(20-50)	(X)
36211	Fractional horsepower motors.....	(X)	(over 2)	(X)
36795	Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blocks).....	(X)	(5-10)	(X)
36930	X-ray equipment, includes X-ray tubes, and electrotherapeutic apparatus.....	(X)	(2-5)	(X)
36942	Battery charging generators.....	(X)	(over 2)	(X)
36946	Components and parts for engine electrical equipment.....	(X)	(over 2)	(X)
	Parts and accessories for passenger cars, trucks, and busses shipped to:			
37175	Motor vehicle manufactures.....	(X)	(over 2)	(X)
37176	Other than motor vehicle manufactures.....	(X)	(2-5)	(X)
37224	Aircraft engine parts and accessories.....	(X)	(2-5)	(X)
	Miscellaneous receipts.....	(X)	117,476	(X)
	Contract work.....	(X)	4,135	(X)
	Copper and copper-base alloy production scrap.....	(X)	2,002	(X)
	Aluminum and aluminum-base alloy production scrap.....	(X)	190	(X)
	All other scrap and refuse.....	(X)	1,189	(X)
	Installation.....	(X)	24,075	(X)
	Research and developmental work.....	(X)	5,439	(X)
	Repair work.....	(X)	18,077	(X)
	Resales.....	(X)	47,579	(X)
	Other miscellaneous receipts.....	(X)	14,790	(X)
	Listing of other industries with over \$2 million shipments of each primary product class:			
38211	3662 Radio, TV communications equipment.....	(X)	(X)	(over 2)
	3811 Scientific instruments.....	(X)	(X)	6,385
38213	3494 Valves and pipe fittings.....	(X)	(X)	8,670
	3542 Metal-forming machine tools.....	(X)	(X)	(over 2)
	3548 Metalworking machinery, n.e.c.....	(X)	(X)	(2-5)
	3559 Special industry machines, n.e.c.....	(X)	(X)	(over 2)
	3567 Industrial furnaces and ovens.....	(X)	(X)	(over 2)
	3571 Computing and related machines.....	(X)	(X)	(2-5)
	3582 Commercial laundry equipment.....	(X)	(X)	(over 2)
	3611 Electric measuring instruments.....	(X)	(X)	5,651
	3662 Radio, TV communications equipment.....	(X)	(X)	2,129
	3679 Electronic components, n.e.c.....	(X)	(X)	4,401
	3693 X-ray apparatus and tubes.....	(X)	(X)	(2-5)
	3811 Scientific instruments.....	(X)	(X)	6,452
	3841 Surgical and medical instruments.....	(X)	(X)	(5-10)
	3842 Surgical appliances and supplies.....	(X)	(X)	(2-5)
38214	3599 Miscellaneous machinery.....	(X)	(X)	(2-5)
	3717 Motor vehicles and parts.....	(X)	(X)	(over 2)
38216	3611 Electric measuring instruments.....	(X)	(X)	2,013
	3613 Switchgear and switchboards.....	(X)	(X)	(2-5)
	3662 Radio, TV communications equipment.....	(X)	(X)	4,028
	3693 X-ray apparatus and tubes.....	(X)	(X)	(over 2)
	3822 Automatic temperature controls.....	(X)	(X)	(5-10)

See footnotes at end of table.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Automatic temperature controls (SIC 3822)	Other industries
AUTOMATIC TEMPERATURE CONTROLS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	527,358	(X)
38220	Automatic temperature controls.....	431,612	409,472	22,140
	Secondary products.....	(X)	90,573	(X)
34941	Metal valves for piping systems (except plumbing and heating valves).....	(X)	8,794	(X)
36220	General industry power circuit devices and controls.....	(X)	13,375	(X)
	Other secondary products.....	(X)	68,404	(X)
34443	Other sheet metal work.....	(X)	(5-10)	(X)
34618	Other stamped and pressed metal end products.....	(X)	(over 2)	(X)
35451	Small cutting tools for machine tools and metalworking machinery.....	(X)	(over 2)	(X)
36113	Other electrical measuring instruments.....	(X)	(5-10)	(X)
36132	Circuit breakers.....	(X)	(2-5)	(X)
36215	Motor generator sets and other rotating equipment.....	(X)	(over 2)	(X)
36740	Solid state semiconductor devices.....	(X)	(over 2)	(X)
37176	Parts and accessories for passenger cars, trucks, and busses shipped to other than motor vehicle manufactures.....	(X)	(over 2)	(X)
38216	Other mechanical measuring and controlling instruments.....	(X)	(5-10)	(X)
38711	Clocks.....	(X)	(5-10)	(X)
	Miscellaneous receipts.....	(X)	27,313	(X)
	Contract work.....	(X)	140	(X)
	Resales.....	(X)	15,221	(X)
	Copper and copper-base alloy production scrap.....	(X)	1,252	(X)
	Aluminum and aluminum-base alloy production scrap.....	(X)	286	(X)
	All other scrap and refuse.....	(X)	617	(X)
	Receipts for repair work.....	(X)	5,048	(X)
	Other miscellaneous receipts.....	(X)	4,749	(X)
38820	Listing of other industries with over \$2 million shipments of automatic temperature control:			
	3494 Valves and pipe fittings.....	(X)	(X)	2,078
	3622 Industrial controls.....	(X)	(X)	(2-5)
	3662 Radio, TV communications equipment.....	(X)	(X)	(2-5)
	3821 Mechanical measuring devices.....	(X)	(X)	9,525
		All industries	Optical instruments and lenses (SIC 3831)	Other industries
OPTICAL INSTRUMENTS AND LENSES INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	196,022	(X)
	Primary products.....	269,528	164,965	104,563
38311	Optical instruments and lenses, except sighting and fire-control equipment.....	212,768	127,573	85,195
38312	Sighting and fire-control equipment made from lenses, prisms, etc., produced in the same plant.....	51,062	31,839	19,223
38310	Optical instruments and lenses, n.s.k.....	5,698	5,553	145
	Secondary products.....	(X)	17,446	(X)
38611	Still picture equipment.....	(X)	3,098	(X)
	Other secondary products.....	(X)	14,348	(X)
36930	X-ray equipment, including X-ray tubes, and electrotherapeutic apparatus.....	(X)	(over 2)	(X)
	Miscellaneous receipts.....	(X)	13,611	(X)
	Contract work.....	(X)	1,831	(X)
	Resales.....	(X)	8,700	(X)
	Other miscellaneous receipts.....	(X)	3,080	(X)
38311	Listing of other industries with over \$2 million shipments of each primary product class:			
	1941 Sighting and fire-control equipment.....	(X)	(X)	(2-5)
	3231 Products of purchased glass.....	(X)	(X)	(over 2)
	3611 Electric measuring instruments.....	(X)	(X)	(over 2)
	3662 Radio, TV communications equipment.....	(X)	(X)	12,223
	3679 Electronic components, n.e.c.....	(X)	(X)	(10-20)
	3729 Aircraft equipment, n.e.c.....	(X)	(X)	(2-5)

See footnotes at end of table.

TABLE 5B. **Industry-Product Analysis—Shipments by Product Class and Industry:**  
**1963—Continued**

Prod. class code	Class of products and miscellaneous receipts	All industries	Optical instruments and lenses (SIC 3831)	Other industries
OPTICAL INSTRUMENTS AND LENSES INDUSTRY--Continued				
Listing of other industries with over \$2 million shipments of each primary product class--Con.				
38311-- Con.	3811 Scientific instruments.....	(X)	(X)	2,024
	3821 Mechanical measuring devices.....	(X)	(X)	3,470
	3851 Ophthalmic goods.....	(X)	(X)	(over 2)
	3861 Photographic equipment.....	(X)	(X)	5,450
38312	3662 Radio, TV communications equipment.....	(X)	(X)	(over 2)
	3811 Scientific instruments.....	(X)	(X)	(2-5)
		All industries	Surgical and medical instruments (SIC 3841)	Other industries
SURGICAL AND MEDICAL INSTRUMENTS INDUSTRY				
Total shipments and receipts of the industry.....		(X)	284,014	(X)
38410	Surgical and medical instruments and apparatus.....	290,621	214,934	75,687
Secondary products.....		(X)	29,129	(X)
38421	Surgical, orthopedic, and prosthetic appliances and supplies.....	(X)	3,063	(X)
25990	Furniture and fixtures, n.e.c.....	(X)	2,777	(X)
Other secondary products.....		(X)	23,289	(X)
25142	Metal kitchen furniture.....	(X)	(over 2)	(X)
28347	Vitamin, nutrient, and hematinic preparations for human use.....	(X)	(over 2)	(X)
38213	Industrial process instruments.....	(X)	(5-10)	(X)
Miscellaneous receipts.....		(X)	39,951	(X)
Contract work.....		(X)	3,601	(X)
Resales.....		(X)	34,184	(X)
Other miscellaneous receipts.....		(X)	2,166	(X)
Listings of other industries with over \$2 million shipments of surgical and medical instruments:				
38410	1941 Sighting and fire-control equipment.....	(X)	(X)	(over 2)
	2515 Mattresses and bedsprings.....	(X)	(X)	(5-10)
	2834 Pharmaceutical preparations.....	(X)	(X)	22,095
	3811 Scientific instruments.....	(X)	(X)	(2-5)
	3842 Surgical appliances and supplies.....	(X)	(X)	5,718
	3843 Dental equipment and supplies.....	(X)	(X)	(2-5)
	3851 Ophthalmic goods.....	(X)	(X)	(over 2)
	3988 Morticians' goods.....	(X)	(X)	(over 2)
		All industries	Surgical appliances and supplies (SIC 3842)	Other industries
SURGICAL APPLIANCES AND SUPPLIES INDUSTRY				
Total shipments and receipts of the industry.....		(X)	596,666	(X)
Primary products.....		461,819	414,545	47,274
38421	Surgical, orthopedic, and prosthetic appliances and supplies.....	318,218	293,813	24,405
38423	Personal industrial safety devices.....	97,354	79,896	17,458
38424	Electrical hearing aids.....	35,285	30,618	4,667
38420	Surgical appliances and supplies, n.s.k.....	10,962	10,218	744
Secondary products.....		(X)	105,379	(X)
23422	Corsets, girdles, combinations and accessories.....	(X)	2,033	(X)
23990	Fabricated textile products, n.e.c.....	(X)	3,064	(X)
38410	Surgical and medical instruments and apparatus.....	(X)	5,718	(X)

See footnotes at end of table.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Surgical appliances and supplies (SIC 3842)	Other industries
SURGICAL APPLIANCES AND SUPPLIES INDUSTRY--Continued				
Secondary products--Continued				
	Other secondary products.....	(X)	94,564	(X)
22991	Bonded fiber fabrics (nonwoven textiles, including nonwoven ribbons for gift tyings).....	(X)	(over 2)	(X)
26472	Sanitary tissue health products.....	(X)	(over 2)	(X)
28346	Pharmaceutical preparations acting on the skin, for human use.....	(X)	(5-10)	(X)
28348	Pharmaceutical preparations affecting parasitic and infective diseases, for human use.....	(X)	(10-20)	(X)
28443	Hair preparations (including shampoos).....	(X)	(over 2)	(X)
28445	Other cosmetics and toilet preparations.....	(X)	(10-20)	(X)
30695	Mechanical rubber goods, n.e.c.....	(X)	(over 2)	(X)
31414	Women's dress, work, and play shoes.....	(X)	(over 2)	(X)
35319	Other construction machinery and equipment, including construction machinery parts, n.e.c....	(X)	(over 2)	(X)
38213	Industrial process instruments.....	(X)	(2-5)	(X)
38430	Dental instruments, equipment, and supplies.....	(X)	(5-10)	(X)
	Miscellaneous receipts.....	(X)	76,742	(X)
	Contract work.....	(X)	3,054	(X)
	Resales.....	(X)	62,226	(X)
	Receipts for repair work.....	(X)	7,400	(X)
	Other miscellaneous receipts.....	(X)	4,062	(X)
Listings of other industries with over \$2 million shipments of each primary product class:				
38421	2641 Paper coating and glazing.....	(X)	(X)	10,445
	3069 Rubber products, n.e.c.....	(X)	(X)	(2-5)
	3841 Surgical and medical instruments.....	(X)	(X)	3,063
38423	3069 Fabricated rubber products, n.e.c.....	(X)	(X)	(2-5)
	3851 Ophthalmic goods.....	(X)	(X)	5,137
38424	3651 Radio and TV receiving sets.....	(X)	(X)	(over 2)
DENTAL EQUIPMENT AND SUPPLIES INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	147,805	(X)
38430	Dental instruments, equipment, and supplies.....	139,532	127,693	11,839
	Secondary products.....	(X)	8,801	(X)
34990	Fabricated metal products, n.e.c.....	(X)	(over 2)	(X)
38410	Surgical and medical instruments and apparatus.....	(X)	(2-5)	(X)
	Miscellaneous receipts.....	(X)	11,311	(X)
	Contract work.....	(X)	964	(X)
	Resales.....	(X)	8,445	(X)
	Other miscellaneous receipts.....	(X)	1,902	(X)
Listing of other industries with over \$2 million shipments of dental equipment and supplies:				
38430	3842 Surgical appliances and supplies.....	(X)	(X)	(5-10)
OPHTHALMIC GOODS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	272,687	(X)
38510	Ophthalmic goods.....	244,143	225,702	18,441
	Secondary products.....	(X)	37,421	(X)
38423	Personal industrial safety devices.....	(X)	5,137	(X)
	All other secondary products.....	(X)	32,284	(X)
31720	Personal leather goods, except handbags and purses.....	(X)	(over 2)	(X)
38311	Optical instruments and lenses, except sighting and fire-control equipment.....	(X)	(over 2)	(X)
38410	Surgical and medical instruments and apparatus.....	(X)	(over 2)	(X)
	Miscellaneous receipts.....	(X)	9,564	(X)
	Receipts for work done for others on their own materials (contract work).....	(X)	1,134	(X)
	Resales.....	(X)	6,235	(X)
	All other miscellaneous receipts.....	(X)	2,195	(X)
Listing of other industries with over \$2 million shipments of ophthalmic goods:				
	2821 Plastics materials and resins.....	(X)	(X)	(over 2)
	3861 Photographic equipment.....	(X)	(X)	(over 2)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Value of shipments including interplant transfers (\$1,000)	
		1963	1958
3811- --	SCIENTIFIC INSTRUMENTS, TOTAL.....	722,105	<sup>r</sup> 758,639
38111 10	Aircraft, flight, nautical, and navigational instruments and automatic pilots: As reported in the census of manufactures..... As reported on Census Annual Form MA-38B (see table 6A-2).....	<sup>1</sup> 2410,591 <sup>1</sup> 2346,074	<sup>r</sup> 509,853 (X)
38112 20	Laboratory and scientific instruments: As reported in the census of manufactures..... As reported on Census Annual Form MA-38B (see table 6A-2).....	<sup>1</sup> 195,138 <sup>1</sup> 186,101	152,597 (X)
38113 --	Surveying and drafting instruments and laboratory furniture.....	104,045	76,463
38113 31	Surveying and drafting instruments and apparatus, except optical (including surveying instruments, transits, drawing instruments, drafting machines, slide rules, planimeters, integrators, etc.).....	23,295	} 16,459
38113 41	Photogrammetric equipment (excluding cameras).....	2,150	
38113 71	Laboratory precision balances (including accessories, attachments, and parts).....	6,538	
	Laboratory furniture: Cabinets and cases: Wood..... Metal.....	31,767 24,094	26,471 20,381
38113 81			
38113 85			
38113 89	Other (tables, stools, reagent shelves, etc.).....	13,041	9,460
38113 00	Surveying and drafting instruments and laboratory furniture, n.s.k.....	3,160	-
38110 00	Scientific instruments, n.s.k.....	12,331	19,726
3821- --	MECHANICAL MEASURING INSTRUMENTS, TOTAL.....	983,840	760,780
38211 10	Aircraft engine instruments, except flight: As reported in the census of manufactures..... As reported on Census Annual Form MA-38B (see table 6A-2).....	<sup>1</sup> 66,383 <sup>1</sup> 64,058	55,481 (X)
38212 20	Integrating meters, nonelectrical type: As reported in the census of manufactures..... As reported on Census Annual Form MA-38B (see table 6A-2).....	<sup>1</sup> 163,716 <sup>1</sup> 148,423	119,358 (X)
38213 30	Industrial process instruments: As reported in the census of manufactures..... As reported on Census Annual Form MA-38B (see table 6A-2).....	<sup>1</sup> 3522,385 <sup>1</sup> 3467,014	403,286 (X)
38214 --	Motor vehicle instruments, except electric.....	95,776	70,787
38214 11	Speedometers for motor vehicles.....	41,833	} 70,477
38214 98	Other motor vehicle indicating instruments, except electric (fuel level, oil pressure, etc.).....	53,373	
38214 00	Motor vehicle instruments, except electric, n.s.k.....	570	
	Other mechanical measuring and controlling instruments(including nuclear radiation detection and monitoring instruments): As reported in the census of manufactures..... As reported on Census Annual Form MA-38B (see table 6A-2).....	<sup>1</sup> 117,171 <sup>1</sup> 107,461	92,721 (X)
38216 60			
38210 00	Mechanical measuring instruments, n.s.k.....	18,409	19,147
3822- --	AUTOMATIC TEMPERATURE CONTROLS, TOTAL.....	431,612	319,855
38220 10	Automatic temperature controls of the type principally used as components of air conditioning, refrigeration, and comfort heating, or as components of major household appliances, including pneumatic controls: As reported in the census of manufactures..... As reported on Census Annual Form MA-38B (see table 6A-2).....	<sup>1</sup> 431,612 <sup>1</sup> 420,744	319,855 (X)
3831- --	OPTICAL INSTRUMENTS AND LENSES.....	269,528	115,481
38311 10	Optical and analytical instruments and lenses: As reported in the census of manufactures..... As reported on Census Annual Form MA-38B (see table 6A-2).....	<sup>1</sup> 212,768 <sup>1</sup> 199,210	<sup>4</sup> 115,481 (X)
38312 10	Sighting and fire-control equipment made from lenses, prisms, etc., produced in the same plant: As reported in the census of manufactures..... As reported on Census Annual Form MA-38B (see table 6A-2).....	<sup>1</sup> 51,062 <sup>1</sup> 49,797	(X)
38310 00	Optical instruments and lenses, n.s.k.....	5,698	(X)

See footnotes at end of table.



TABLE 6A-1. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3841- --	SURGICAL AND MEDICAL INSTRUMENTS AND APPARATUS, TOTAL.....		(X)	290,621	(X)	130,570
38410 12	Surgical instruments, including suture needles, and eye, ear, nose, and throat instruments.....		(X)	22,341	(X)	10,362
38410 31	Orthopedic instruments, such as bone drills, bone plates, etc., excluding eye, ear, nose, and throat instruments.....		(X)	8,146	(X)	5,938
38410 51	Diagnostic apparatus, including such items as metabolism and blood pressure apparatus, ophthalmoscopes, octoscopes, cystoscopes, etc.....		(X)	19,180	(X)	9,650
38410 63	Hypodermic syringes: Reusable.....	1,000 units....	7,911	11,560	19,628	14,385
38410 66	Disposable: Uniquely designed for prefilling.....	..do.....	115,974	11,329		
38410 68	Other.....	..do.....	389,157	25,129		
38410 73	Hypodermic needles: Reusable.....	..do.....	30,603	5,388	182,518	12,510
38410 75	Disposable.....	..do.....	834,150	27,508		
38410 81	Other surgical and medical instruments, including anesthesia apparatus, transfusion equipment, blood donor kits, veterinary instruments.....		(X)	82,324	(X)	36,339
38410 91	Operating room furniture, including tables, cases, cabinets, etc....		(X)	18,029	(X)	7,595
38410 95	Other hospital furniture, excluding operating equipment, beds, and instruments, but including cabinets, cases, desks, tables, bassinets, chart racks, back rests, etc.....		(X)	49,835	(X)	24,993
38410 00	Surgical and medical instruments and apparatus, n.s.k.....		(X)	9,852	(X)	8,798
3842- --	ORTHOPEDIC, PROSTHETIC, AND SURGICAL APPLIANCES AND SUPPLIES, TOTAL.....		(X)	461,819	(X)	362,029
38421 --	Surgical, orthopedic, and prosthetic appliances and supplies.....		(X)	318,218	(X)	256,573
38421 11	Orthopedic appliances (braces), including parts.....		(X)	8,099	(X)	9,977
38421 15	Sterilizers (hospital and surgical) (excluding dental sterilizers).....		(X)	15,848	(X)	17,010
38421 22	Surgical dressings: Bandages, elastic.....	1,000 sq. yds..	2,011	6,012	(NA)	6,144
38421 23	Bandages, other (including muslin, plaster of Paris, etc.; but excluding self-adhering bandages).....	..do.....	27,277	10,876	16,718	8,065
38421 24	Adhesive, plaster, medicated and nonmedicated (including self-adhering bandages).....		(X)	53,726	(X)	47,835
38421 27	Cotton, including cotton balls (sterile and nonsterile).....		(X)	15,006	(X)	22,324
38421 26	Gauze (absorbent and packing).....	1,000 sq. yds..	106,458	5,686	29,854	29,854
38421 29	Other surgical dressings (including sponges, compresses, pads, etc.).....		(X)	30,825		
38421 33	Sterile surgical sutures, absorbable.....		(X)	40,363	(X)	20,804
38421 34	Sterile surgical sutures, nonabsorbable.....		(X)	10,356	(X)	8,198
38421 35	Artificial limbs (prosthetic) including parts.....		(X)	7,602	(X)	3,345
38421 38	Elastic stockings.....		(X)	8,298	(X)	7,017
38421 41	Elastic braces, suspensories, and other elastic supports.....		(X)	7,500	(X)	10,556
38421 45	Arch supports and other foot appliances.....		(X)	3,300	(X)	1,949
38421 51	Trusses.....		(X)	1,691	(X)	2,839
38421 61	Corn remover pads, bunion pads, etc.....		(X)	( <sup>5</sup> )	(X)	4,190
38421 71	Surgical corsets.....	1,000 dozen..	74	6,479	46	2,717
38421 98	Other surgical and orthopedic items not included in above categories (wheel chairs, infant incubators, respirators, splints, etc.).....		(X)	576,179	(X)	40,313
38421 00	Surgical, orthopedic, and prosthetic appliances and devices, n.s.k.....		(X)	10,372	(X)	13,436
38423 --	Personal industrial safety devices.....		(X)	97,354	(X)	56,365
38423 11	Respiratory protection equipment (including gas masks, abrasive masks, canister masks, etc.).....		(X)	29,984	(X)	13,927
38423 31	Eye and face protection devices (including face shields, hoods, and welding helmets and masks) (excluding industrial goggles and eye protectors).....		(X)	11,454	(X)	2,374
38423 51	Protective clothing, except shoes.....		(X)	21,659	(X)	15,167
38423 61	First aid, snake bite and burn kits, both household and industrial types.....		(X)	7,023	(X)	5,667
38423 71	Other personal safety devices.....		(X)	27,234	(X)	19,230
38424 00	Electronic hearing aids.....	1,000 units....	355	35,285	400	39,517
38420 00	Orthopedic, prosthetic, and surgical appliances and supplies, n.s.k.....		(X)	10,962	(X)	9,574

See footnotes at end of table.

TABLE 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3843- --	DENTAL EQUIPMENT AND SUPPLIES, TOTAL.....		(X)	139,532	(X)	110,680
38430 11	Dental metals:					
38430 15	Precious.....	1,000 troy oz..	797	19,492	} (NA)	17,998
	Nonprecious.....	..do.....	1,062	2,512		
38430 21	Dental alloys for amalgams.....	..do.....	1,537	2,700	950	1,505
	Teeth:					
38430 31	Porcelain.....	1,000 teeth...	60,493	12,392	64,882	10,439
38430 35	Other, including resinous and plastic.....	..do.....	26,662	5,064	20,726	3,461
38430 41	Denture materials.....		(X)	3,752	(X)	2,962
38430 47	Dental professional equipment, including dental chairs, equipment units, cabinets, lights, etc.....		(X)	27,204	(X)	24,906
38430 51	Dental laboratory equipment, including furnaces, casting machines, lathes, benches, polishing units, flasks, blow pipes, presses, etc.....		(X)	6,063	(X)	2,988
38430 57	Dental hand instruments (forceps and pliers, broaches, cutting instruments, etc.).....		(X)	8,074	(X)	10,192
38430 61	Burs, diamond points, abrasive points, wheels, disks, and similar tools for use with hand pieces.....		(X)	7,713	(X)	6,198
38430 71	Waxes, cements, dental gypsums, impression materials, and other consumable supplies including low-fusing alloys.....		(X)	14,425	(X)	12,242
38430 98	Other dental products, including dental sterilizers (excluding X-ray equipment).....		(X)	23,717	(X)	7,328
38430 00	Dental instruments, equipment, and supplies, n.s.k.....		(X)	6,424	(X)	10,461
3851- --	OPHTHALMIC GOODS, TOTAL.....		(X)	244,143	(X)	167,951
	Ophthalmic fronts, finished (with or without decoration):					
38510 12	Gold filled fronts, full rimmed or semirimmed.....	1,000 units....	931	2,493	1,124	2,753
38510 14	Aluminum or other metal fronts.....	..do.....	709	2,451	428	1,553
38510 15	Plastic fronts.....	..do.....	20,076	26,682	16,417	20,027
38510 16	Combination fronts.....	..do.....	4,742	12,220	7,108	16,927
38510 17	Temples (all types), finished.....	1,000 pairs....	24,665	24,173	26,144	25,736
38510 18	Centers, oxfords, parts, trim, unfinished fronts and temples, etc.....		(X)	6,836	(X)	6,774
38510 24	Ophthalmic spectacles and eyeglasses (frames and mountings of all types when sold corrective lenses inserted-with or without decoration).....	1,000 units....	3,341	4,797	3,449	3,500
	Ophthalmic focus lenses:					
38510 32	Single vision lenses (ground and polished and moulded blanks)....	1,000 pairs....	22,058	27,439	14,553	13,721
38510 35	Multifocal lenses (bifocals and trifocals; finished and semi-finished and moulded blanks).....	..do.....	14,477	42,592	13,899	28,098
38510 41	Industrial goggles, eye protectors, welding circles and plates, mountings, and parts.....		(X)	22,977	(X)	13,923
38510 51	Sun or glare glasses and sungoggles, complete.....	1,000 units....	32,619	45,042	16,780	14,445
38510 98	Other ophthalmic goods and accessories (sunglass frames, single readers and magnifiers, holders, gas mask inserts, etc.).....		(X)	17,472	(X)	9,231
38510 00	Ophthalmic goods, n.s.k.....		(X)	8,969	(X)	11,263

Standard notes: - Represents zero. (X) Not applicable. <sup>R</sup>Revised.

n.s.k. Not specified by kind.

<sup>1</sup>For these products, figures were also collected in the Bureau of the Census commodity survey program. In lieu of asking for detailed statistics on these products in the census of manufactures, respondents were asked to report only value of shipments for specified groups of products for which separate figures had previously been collected in the commodity survey. In most cases, the value figures reported in the census of manufactures for each group of products agreed closely with the corresponding figures reported in the commodity survey. However, there were minor differences between the census figures and the commodity survey figures. These variations, except as noted below were due primarily to the following reasons:

- Better coverage in census of manufactures program. Coverage in the annual surveys will be supplemented by adding respondents not currently in the survey but making the specified product according to their census of manufactures report.
- Use of different reporting periods (calendar year vs. fiscal year).
- Use of estimates in reporting figures on the commodity survey, whereas census of manufactures figures generally represent more exact shipment figures.

See table 6A-2 for more detailed product data.

<sup>2</sup>The major difference between these two figures concerns the method of reporting parts and components for aircraft, flight, nautical, and navigational instruments and automatic pilots. Whereas many respondents have included such parts under the broad heading in the census, parts were not covered in the 1963 MA-38B survey. While the exact value of such parts cannot be derived, it is approximately represented by the difference between the two sets of figures.

<sup>3</sup>The major difference between these two figures concerns the method of reporting parts and components for industrial process instruments. Whereas many respondents have included such parts under the broad heading in the census, parts were not covered in the 1963 MA-38B survey. While the exact value of such parts cannot be derived, it is approximately represented by the difference between the two sets of figures.

<sup>4</sup>1963 product class codes 38311 and 38312 were collected as a single product class in 1958.

<sup>5</sup>Product code 3842161 is included with product code 3842198, "Other surgical and orthopedic items" to avoid disclosing figures for individual companies.



TABLE 6A-2. Selected Instruments and Related Products—Quantity and Value of Shipments: 1963 and 1958

Product code	Product	Total shipments including interplant transfers					
		1963		1958			
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)		
38111 --	Aeronautical; nautical; and navigational instruments; and automatic pilots, total.....	(X)	346,074	(X)	1,509,853		
	Flight and navigation instruments:						
38111 01	Compasses (excluding radio).....	89,871	3,494	(X)	2,211,183		
38111 04	Omnibearing indicators (for visual-omni-range system).....	(X)	(1)				
38111 05	Radio magnetic indicators.....	(X)	(1)				
38111 06	Glide slope indicators.....	(X)	(1)				
38111 07	Pictorial deviation indicators.....	(X)	(1)				
38111 08	Altimeters (excluding radio altimeters).....	11,235	9,594				
38111 09	Air speed indicators.....	8,379	2,701				
38111 11	Machmeters.....	(X)	(1)				
38111 12	Acceleration indicators.....	(X)	(1)				
38111 13	Rate-of-climb indicators.....	6,203	866				
38111 14	Driftmeters.....	(X)	(1)				
38111 15	Angle-of-attack indicators.....	(X)	(1)				
38111 16	Angle-Of-yaw indicators.....	(X)	(1)				
38111 17	Bank and turn indicators.....	(X)	(1)				
38111 18	Horizon flight indicators.....	11,703	8,359				
38111 19	Sextants.....	(X)	(1)				
38111 20	Other flight and navigation instruments.....	(X)	113,023				
	Gyroscopes (sold separately):						
38111 21	Vertical.....	13,605	25,827	(X)	14,930		
38111 23	Directional.....	3,940	2,891	(X)	5,076		
38111 25	Free, torqued and untorqued.....	5,513	10,948	(X)	1,602		
38111 27	Rate.....	34,937	24,653	(X)	15,296		
38111 41	Integrating rate (nonfloated).....	180	415	(X)	7,032		
38111 43	Fully floated.....	2,717	24,479				
38111 44	Complete automatic pilots (both gyroscopic and nongyroscopic).....	12,528	62,799	(X)	(2)		
	Airframe equipment instruments:						
38111 61	Position indicators (mechanical, as for landing gear, cowl flaps, stabilizers, etc.).....	(X)	6,694	(X)	248,002		
38111 62	Electrical system (ammeters, load meters, frequency meters, etc.).....	(X)	8,905				
38111 63	Hydraulic system (both electrical and mechanical measuring means, as for liquid level and temperature and pressure indicators).....						
38111 64	Cabin air conditioning and heating (both electrical and mechanical means; indicators for differential pressure, air temperature, and air flow; and compressor tachometers).....						
	Regulating and controlling instruments:						
38111 71	Electrical (air combustion, air pressure, cabin pressure, etc.).....	(X)	(3)	(X)	6,732		
38111 72	Mechanical (coolant, demand oxygen, oil pressure, etc.).....	(X)	19,541				
38111 98	Other aeronautical; nautical; and navigational instruments.....	(X)	3120,885	(X)	55,481		
38111 00	Aeronautical, nautical, and navigational instruments, and automatic pilots, n.s.k.....	(X)	-				
38112 --	Primary laboratory and scientific instruments, total.....	(X)	186,101	(X)	152,597		
38112 62	Electronic laboratory standards and calibrating equipment.....	(X)	2,754				
38112 63	Electrical laboratory standards and calibrating equipment.....	(X)	6,122				
38112 64	All other laboratory and scientific instruments (excluding aircraft, nautical and navigational instruments and apparatus, electrical quantity measuring instruments, and industrial instruments).....	(X)	177,225				
38211 --	Aircraft engine and fuel system instruments, total.....	(X)	64,058	(X)	55,481		
38211 45	Temperature indicators.....	(X)	5,814	(X)	55,481		
38211 46	Pressure ratio indicators.....	(X)	2,355				
38211 47	Pressure and vacuum indicators.....	(X)	4,303				
38211 48	Flow indicators.....	(X)	9,488				
38211 49	Liquid level indicators.....	(X)	24,948				
38211 50	Tachometers.....	(X)	(4)				
38211 51	Thrust power indicators.....	(X)	(4)				
38211 52	Fuel mixture indicators.....	(X)	(4)				
38211 53	Fuel totalizers.....	(X)	(4)				
38211 54	Fuel densitometers.....	(X)	(4)				
38211 55	Engine synchronizers.....	(X)	(4)				
38211 56	All other.....	(X)	417,150				
38212 --	Integrating meters, nonelectrical type, total.....	(X)	148,423	(X)	119,358		
38212 11	Gas meters.....	1,558,312	56,545	1,232,000	40,806		
38212 31	Water meters.....	1,351,297	60,880	1,247,000	47,886		

See footnotes at end of table.

TABLE 6A-2. Selected Instruments and Related Products—Quantity and Value of Shipments: 1963 and 1958—Continued

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)
38212 --	Integrating meters, nonelectrical type—Continued				
38212 41	Gasoline dispensing meters.....	237,454	11,845	(X)	30,412
38212 98	Other nonelectrical integrating meters.....	237,923	19,153		
38212 00	Integrating meters, nonelectrical type, n.s.k.....	(X)	-	(X)	254
38213 --	Industrial and other process instruments (indicating, measuring, and recording), total.....	(X)	467,014	(X)	403,286
	Temperature instruments:				
	Thermometers:				
38213 13	Clinical.....	14,897,486	6,659	9,977,000	6,698
38213 15	Household.....	14,272,575	8,890		
	Industrial and laboratory:				
38213 10	Glass stem.....	2,145,629	7,802	(X)	10,194
38213 11	Bimetallic.....	1,015,317	6,593		
38213 12	Filled system.....	757,075	17,603		
	Pyrometers (radiation and optical):				
38213 18	Electronic and electrical.....	36,949	21,073	(X)	27,994
38213 19	Other.....	21,838	3,978		
38213 22	Other temperature measuring instruments.....	507,063	29,773	(X)	27,363
	Pressure and vacuum instruments:				
38213 31	Electronic and electrical types of pressure and vacuum instruments....	(X)	18,781	(X)	53,307
38213 32	Barometers (all types).....	266,410	3,078		
	Mechanical:				
38213 33	Nontransmission.....	(X)	58,930	(X)	17,836
38213 35	Pneumatic transmission.....	(X)	9,716		
38213 37	Electric transmission.....	(X)	7,172		
	Fluid flow and liquid level instruments:				
38213 41	Electronic and electrical, except X-ray and nuclear instruments.....	(X)	9,364	(X)	53,995
	Mechanical:				
38213 43	Nontransmission.....	(X)	28,498		
38213 45	Pneumatic transmission.....	(X)	16,802		
38213 47	Electric transmission.....	(X)	12,518		
	Continuous process (on stream) gas and chemical analysis instruments (excluding basically optical and analytical):				
38213 46	Chromatographic.....	(X)	12,567	(X)	17,836
38213 48	All other.....	(X)	10,236		
38213 49	Humidity instruments.....	(X)	3,968	(X)	1,215
	Physical properties testing and inspection equipment, including hardness, strength of materials, thickness, wear, abrasion, and similar testers (excluding X-ray and nuclear):				
	Stress, strain, and flaw detecting, and measuring equipment:				
38213 52	Electronic types.....	(X)	16,822	(X)	34,120
38213 53	Other types.....	(X)	7,257		
	Other physical properties testing and inspection equipment:				
38213 54	Electronic types.....	(X)	6,004	(X)	138,017
38213 55	Other types.....	(X)	8,043		
	Kinematic test and measuring equipment:				
38213 57	Vibration.....	(X)	20,772	(X)	21,289
38213 58	Acceleration and all other kinematic test and measuring equipment.....	(X)	9,522		
	All other industrial process instruments:				
38213 95	Electronic types.....	(X)	26,631	(X)	21,289
38213 97	Other types.....	(X)	77,962		
38213 00	Industrial and other process instruments, n.s.k.....	(X)	-		

See footnotes at end of table.



**TABLE 6A-2. Selected Instruments and Related Products-Quantity and Value  
of Shipments: 1963 and 1958-Continued**

Product code	Product	Total shipments including interplant transfers						
		1963		1958				
		Quantity (Number of Units)	Value (\$1,000)	Quantity (Number of Units)	Value (\$1,000)			
38216 --	Other mechanical measuring and controlling instruments, total.....	(X)	107,461	(X)	92,721			
38216 11	Nuclear radiation detection and monitoring instruments: Radiation detecting elements, including ion chambers, sold separately.	15,331	2,938	}				
	Nuclear monitoring instruments: Portable (or hand held):							
38216 12	50 MR/HR maxium range.....	65,928	2,120					
38216 13	50.1 MR/HR but less than 10 R/HR.....	328,586	5,870					
38216 14	10 R/HR through 500 R/HR.....	11,644	678					
38216 15	Environmental (fixed or semiportable or mobile systems for area monitoring but not hand held or worn on person).....	(NA)	2,257					
38216 16	Personnel dosimetry devices, self-reading and others (worn on the person).....	1,158,811	6,474					
	Medical monitors:							
38216 17	Whole body counters.....	} 808	1,352			(X)	19,922	
38216 18	Medical scanners and special purpose monitors.....							
38216 19	Scalers.....	3,383	3,017					
38216 21	Special amplifiers for nuclear applications.....	1,121	1,159					
	Pulse analyzers, including nuclear spectrometers:							
38216 22	Single channel pulse height analyzers.....	635	525					
38216 23	Multichannel pulse height analyzers.....	692	6,709					
38216 24	Sample changers.....	468	911					
38216 25	Count rate meters.....	2,356	1,264					
38216 26	Nuclear instruments for industrial purposes.....	2,058	5,013					
38216 27	Miscellaneous, n.e.c.....	(X)	21,063					
	Mechanical measuring instruments:							
38216 71	Revolution counters.....	1,570,312	11,422	1,769,000	12,530			
38216 51	Other mechanical measuring instruments.....	(X)	34,689	(X)	52,986			
38216 00	Other mechanical measuring and controlling instruments, n.s.k.....	(X)	-	(X)	7,283			
38220 --	Automatic temperature controls of the type principally used as components of air-conditioning, refrigeration, and comfort heating, or as components of major household appliances (including pneumatic controls), total.....	(X)	420,744	(X)	319,855			
38220 16	Pressure sensitive controls.....	(X)	21,601	(X)	}	319,855		
38220 14	Thermostatic controls.....	(X)	309,534	(X)				
38220 16	Hydrostatic controls.....	(X)	} 89,609	(X)				
38220 18	Other.....	(X)		(X)				
38311 --	Optical and analytical instruments, total.....	(X)	199,210	}				
	Optical:							
38311 31	Field glasses, prismatic and nonprismatic, terrestrial and celestial telescopes.....	(X)	2,659					
38311 51	Microprojectors and photomicrographic equipment.....	(X)	( <sup>5</sup> )					
	Microscopes:							
38311 52	Electron and proton.....	} (X)	32,276					
38311 54	Optical.....							
38311 74	Optical and related types of spectrometers.....	(X)	50,455					
38311 78	All other optical instruments, including analytical, industrial, and meterological.....	(X)	570,886			(X)	115,481	
	Laboratory analysis apparatus (nonoptical):							
38311 71	Mass spectrographs.....	(X)	5,080					
38311 73	Nuclear magnetic resonance type apparatus.....	(X)	( <sup>6</sup> )					
38311 75	Electron paramagnetic spin type apparatus.....	(X)	( <sup>6</sup> )					
38311 77	Chromatographic equipment (excluding continuous (on stream) gas and chemical analysis types).....	(X)	5,473					
38311 79	All other nonoptical analytical instruments and equipment (photometers, colorimeters, turbidometers, nephelometers, titrometers, PH meters, etc.).....	(X)	632,381					
38312 62	Sighting, tracking, and fire-control equipment (optical type), made from lenses, prisms, etc., produced in the same plant.....	(X)	49,797					

- Represents zero. (NA) Not available. (X) Not applicable.

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

Source: Current Industrial Reports Series M38B, "Selected Instruments and Related Products."

<sup>1</sup>Included in 3811120 to avoid disclosing operations of individual companies.

<sup>2</sup>Data for complete automatic pilots are included with flight and navigation instruments in 1958.

<sup>3</sup>Included with 3811198 to avoid disclosing operations of individual companies.

<sup>4</sup>Included with 3821156 to avoid disclosing operations of individual companies.

<sup>5</sup>Included with 3831178 to avoid disclosing operations of individual companies.

<sup>6</sup>Included with 3831179 to avoid disclosing operations of individual companies.

**TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
3811-	Scientific instruments.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
382--	Mechanical measuring devices.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
3821-	Mechanical measuring instruments.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
38212	Integrating meters, nonelectrical type.....1963..	105	146
	.....1958..	87	128
3822-	Automatic temperature controls.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
3831-	Optical instruments and lenses.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
384--	Medical instruments and supplies.....1963..	172	110
	.....1958..	117	111
3841-	Surgical and medical instruments and apparatus.....1963..	254	109
	.....1958..	117	112
3842-	Orthopedic, prosthetic, and surgical appliances and supplies <sup>2</sup> .....1963..	155	104
	.....1958..	118	107
38421	Surgical, orthopedic, and prosthetic appliances and supplies.....1963..	132	113
	.....1958..	102	117
38424	Electrical and electronic hearing aids.....1963..	116	105
	.....1958..	130	104
3843-	Dental equipment and supplies.....1963..	134	131
	.....1958..	118	118
3851-	Ophthalmic goods.....1963..	139	126
	.....1958..	109	113

<sup>1</sup>Not shown because comparable quantity data were not obtained for a significant portion of these products.

<sup>2</sup>Adjusted to include personal industrial safety devices (product class 38423).



TABLE 6C. **Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3811-	Scientific instruments.....	648,551	<sup>r</sup> 1,085,345	<sup>r</sup> 1,034,974	<sup>r</sup> 1,027,416	<sup>r</sup> 913,133	<sup>r</sup> 758,639	<sup>2</sup> 685,495	(NA)
38111	Aircraft flight, nautical and navigational instruments and automatic pilots <sup>3</sup> .....	<sup>4</sup> 346,074	<sup>r</sup> 680,685	<sup>r</sup> 635,025	<sup>r</sup> 664,679	<sup>r</sup> 586,662	<sup>r</sup> 509,853	536,932	(NA)
38112	Laboratory and scientific instruments.....	<sup>4</sup> 186,101	404,660	399,949	359,867	303,288	229,060	148,563	(NA)
38113	Surveying and drafting instruments and laboratory furniture.....	104,045							
38110	Scientific instruments, n.s.k.....	12,331	-	-	(2,870)	(23,183)	19,726	(NA)	(NA)
3821-	Mechanical measuring devices.....	901,141	842,889	764,992	954,726	886,046	760,780	567,515	355,513
38211	Aircraft engine instruments, except flight	<sup>4</sup> 64,058	46,495	49,485	61,565	65,461	55,481	80,454	35,868
38212	Integrating meters, nonelectrical type....	<sup>4</sup> 148,423	154,278	140,174	146,717	154,720	119,358	107,112	63,262
38213	Industrial process instruments.....	<sup>4</sup> 467,014	<sup>4</sup> 369,402	<sup>4</sup> 338,141	500,297	443,775	403,286	280,832	168,369
38214	Motor vehicle instruments, except electric	95,776	101,057	87,338	91,492	87,363	70,787	47,627	39,495
38216	Other mechanical measuring and controlling instruments.....	<sup>4</sup> 107,461	151,832	134,419	131,225	117,329	92,721	51,490	48,519
38210	Mechanical measuring devices, n.s.k.....	18,409	19,825	15,435	23,430	17,398	19,147		
38220	Automatic temperature controls.....	<sup>4</sup> 420,744	368,409	340,975	319,422	330,239	319,855	259,669	100,640
3831-	Optical instruments and lenses.....	245,705	185,155	160,911	150,555	142,219	115,481	117,574	55,134
38311	Optical instruments and lenses, except sighting and fire-control equipment.....	<sup>4</sup> 199,210	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
38312	Sighting and fire-control equipment made from lenses, prisms, etc. produced in this plant. (See also code 19410).....	<sup>4</sup> 49,797							
38310	Optical instruments and lenses, n.s.k.....	5,698							
38410	Surgical and medical instruments and apparatus.....	290,621	200,539	179,007	159,952	150,389	130,570	99,391	56,441
3842-	Surgical appliances and supplies.....	461,819	477,649	445,332	463,803	443,245	362,029	285,014	192,623
38421	Surgical, orthopedic, and prosthetic appliances and supplies.....	318,218	319,766	311,982	339,763	316,735	256,573	220,020	148,071
38423	Personal industrial safety devices.....	97,354	98,070	73,910	64,607	69,509	56,365	35,962	27,684
38424	Electronic hearing aids.....	35,285	48,359	49,633	49,350	47,219	39,517	29,032	6,868
38420	Surgical appliances and supplies, n.s.k....	10,962	(11,454)	(9,807)	(10,083)	(9,782)	9,574	(NA)	(NA)
38430	Dental instruments, equipment, and supplies..	139,532	133,953	119,584	123,825	112,611	110,680	79,482	72,060
38510	Ophthalmic goods.....	244,143	119,686	176,962	185,997	177,591	167,951	136,482	106,346

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. Revised. n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>The 1954 value of shipments does not include a total for product code 3811000, scientific instruments, n.s.k., estimated at less than \$3 million.

<sup>3</sup>See text for explanation regarding shift from individual instruments to systems.

<sup>4</sup>Source: Current Industrial Reports Series M-38B, Selected Instruments and Related Products.

TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
AIRCRAFT FLIGHT, NAUTICAL, AND NAVIGATIONAL INSTRUMENTS AND AUTOMATIC PILOTS (38111)			AIRCRAFT ENGINE INSTRUMENTS, EXCEPT FLIGHT (38211)			OTHER MECHANICAL MEASURING AND CONTROLLING INSTRUMENTS (38216)		
United States, total....	410,591	509,853	United States, total....	66,383	55,481	United States, total...	117,171	92,721
New England.....	46,208	( <sup>2</sup> )	New England.....	19,796	17,093	New England.....	33,715	( <sup>2</sup> )
Massachusetts.....	31,393	16,521	Middle Atlantic.....	22,075	26,005	Connecticut.....	16,481	11,961
Middle Atlantic.....	117,382	( <sup>2</sup> )	New York.....	12,666	17,294	Middle Atlantic.....	16,529	( <sup>2</sup> )
New York.....	17,258	176,313	North Central.....	16,422	9,998	New York.....	2,114	8,606
New Jersey.....	97,891	( <sup>2</sup> )	South and West.....	8,090	2,385	New Jersey.....	7,191	5,173
Pennsylvania.....	2,233	( <sup>2</sup> )				Pennsylvania.....	7,224	( <sup>2</sup> )
East North Central.....	101,076	( <sup>2</sup> )	INTEGRATING METERS, NON-ELECTRICAL TYPE (38212)			North Central.....	46,395	31,810
Ohio.....	1,619	( <sup>2</sup> )	United States, total....	163,716	119,358	Ohio.....	17,501	7,403
Illinois.....	12,893	14,523				Illinois.....	17,826	16,827
West North Central.....	46,893	( <sup>2</sup> )	Northeast.....	110,967	88,287	Wisconsin.....	6,428	( <sup>2</sup> )
South Atlantic.....	23,325	97,922	New Jersey.....	7,538	( <sup>2</sup> )	South.....	4,681	15,962
West South Central.....	3,949		Pennsylvania.....	54,416	42,988	Texas.....	3,041	
West.....	71,758		North Central.....	29,572	31,071	West.....	15,851	
			South.....	9,636				
LABORATORY AND SCIENTIFIC INSTRUMENTS (38112)			Pacific.....	13,541	12,991	OPTICAL INSTRUMENTS AND LENSES, EXCEPT SIGHTING AND FIRE-CONTROL EQUIPMENT (38311)		1963 <sup>1</sup>
United States, total....	195,138	229,060	California.....	13,541		United States, total...		212,768
New England.....	16,304	20,453	INDUSTRIAL PROCESS INSTRUMENTS (38213)			New England.....		54,678
Massachusetts.....	9,413	16,689	United States, total....	522,385	403,286	Middle Atlantic.....		68,375
Middle Atlantic.....	42,225	76,559	New England.....	130,729	86,847	New York.....		53,375
New York.....	9,923	35,114	Massachusetts.....	81,080	45,555	New Jersey.....		5,102
New Jersey.....	11,319	18,893	Connecticut.....	39,476	( <sup>2</sup> )	Pennsylvania.....		9,898
Pennsylvania.....	20,983	22,552	Middle Atlantic.....	212,559	160,732	East North Central.....		15,701
East North Central.....	38,581	68,797	New York.....	55,882	50,381	Ohio.....		3,964
Ohio.....	4,099	( <sup>2</sup> )	New Jersey.....	18,365	15,342	Illinois.....		10,636
Illinois.....	27,817	19,642	Pennsylvania.....	138,312	95,009	West North Central.....		1,620
Michigan.....	5,222	18,111	East North Central.....	103,331	97,963	South.....		4,764
West North Central.....	2,756	4,208	Ohio.....	39,130	42,723	Florida.....		2,684
South.....	28,670	32,543	Indiana.....	6,432	2,275	West.....		67,630
Maryland.....	16,899	8,797	Illinois.....	44,828	38,874	California.....		66,505
Texas.....	8,866	14,269	Michigan.....	7,096	10,025			
Mountain.....	4,345	26,500	Wisconsin.....	5,845	4,066	SIGHTING AND FIRE-CONTROL EQUIPMENT MADE FROM LENSES, PRISMS, ETC., PRODUCED IN THIS PLANT (SEE ALSO CODE 19410) (38312)		
Pacific.....	62,257		West North Central.....	14,575	5,410	United States, total...		51,062
			Minnesota.....	3,432	( <sup>2</sup> )	Northeast.....		23,939
SURVEYING AND DRAFTING INSTRUMENTS AND LABORATORY FURNITURE (38113)			Iowa.....	8,641	4,601	North Central.....		4,295
United States, total....		104,045	South.....	21,110	20,048	South and West.....		22,828
New England.....		4,402	Maryland.....	1,494	1,171			
Massachusetts.....		2,266	Florida.....	1,503	( <sup>2</sup> )			
Middle Atlantic.....		29,216	Oklahoma.....	3,507	4,665			
New York.....		10,968	Texas.....	5,777	4,786			
New Jersey.....		16,657	West.....	40,081	32,286			
Pennsylvania.....		1,591						
North Central.....		33,306	MOTOR VEHICLE INSTRUMENTS, EXCEPT ELECTRIC (38214)					
Illinois.....		3,460	United States, total....		95,776			
Michigan.....		14,480	Northeast.....		6,171			
Wisconsin.....		13,347	New York.....		3,077			
South.....		29,570	North Central.....		88,017			
Maryland.....		1,130	Illinois.....		13,178			
Texas.....		3,672	Michigan.....		71,436			
West.....		7,551	South and West.....		1,588			

See footnotes at end of table.



TABLE 6D. **Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued**

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
SURGICAL AND MEDICAL INSTRUMENTS AND APPARATUS (38410)—Continued			SURGICAL, ORTHOPEDIC AND PROSTHETIC APPLIANCES AND SUPPLIES (38421)—Continued			SURGICAL, ORTHOPEDIC AND PROSTHETIC APPLIANCES AND SUPPLIES (38421)—Continued		
East North Central.....	74,990	(2)	Middle Atlantic.....	108,498	(2)	Mountain.....	1,203	11,401
Ohio.....	7,860	3,684	New York.....	26,229	25,387	Pacific.....	19,376	
Indiana.....	27,725	6,438				California.....	18,684	10,084
Illinois.....	22,873	5,127	East North Central.....	109,366	97,620	PERSONAL INDUSTRIAL SAFETY DEVICES (38423)		
Michigan.....	3,090	(2)	Ohio.....	12,320	9,898			
Wisconsin.....	13,442	10,601	Indiana.....	3,734	7,758	United States, total....	97,354	56,365
West North Central.....	32,011	(2)	Illinois.....	81,523	64,712			
Minnesota.....	1,199	(Z)	Michigan.....	7,476	7,435			
South.....	29,137	21,274	Wisconsin.....	4,313	7,817	New England.....	18,790	36,749
Tennessee.....	7,529							
Mountain.....	1,123	11,361	West North Central.....	12,433	7,679	Middle Atlantic.....	45,948	3,284
Pacific.....	38,921		Minnesota.....	3,878	(2)	New York.....	11,094	
California.....	38,304		Missouri.....	7,345	6,864	New Jersey.....	4,618	6,571
						Pennsylvania.....	30,236	(2)
SURGICAL, ORTHOPEDIC AND PROSTHETIC APPLIANCES AND SUPPLIES (38421)			South Atlantic.....	21,910	(2)	East North Central.....	16,627	8,959
			North Carolina.....	1,752	2,005	Ohio.....	5,306	3,775
United States, total....	318,218	256,573	Florida.....	1,066	(Z)	Indiana.....	7,246	3,894
New England.....	30,125	(2)	East South Central.....	9,635	(2)	West North Central.....	1,191	1,002
Massachusetts.....	3,528	(2)				South.....	7,117	9,655
Connecticut.....	22,912	22,945	West South Central.....	5,672	(2)	West.....	7,681	
			Texas.....	5,121	(2)			

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. Revised. (Z) Shipments of less than \$1 million reported.

<sup>1</sup>For the specified product classes, shipments of \$1 million or more were reported for the States listed, but the exact figures are withheld to avoid disclosure of individual company figures: 38111, Connecticut, Indiana, Michigan, Wisconsin, Minnesota, Iowa, Kansas, Maryland, Virginia, North Carolina, Florida, Texas, Arizona, Washington, and California; 38112, Rhode Island, Connecticut, Wisconsin, Missouri, Louisiana, Colorado, Arizona, Oregon, and California; 38113, Rhode Island, Ohio, Virginia, West Virginia, North Carolina, Louisiana, Colorado, and California; 38211, Vermont, Massachusetts, Connecticut, New Jersey, Pennsylvania, Michigan, Minnesota, Iowa, Texas and California; 38212, Massachusetts, Connecticut, New York, Illinois, Wisconsin, Nebraska, Georgia, Tennessee, Oklahoma, and Texas; 38213, New Hampshire, Vermont, Rhode Island, Missouri, Nebraska, Virginia, Georgia, Kentucky, Oregon, and California; 38214, Connecticut and Indiana; 38216, Massachusetts, Rhode Island, New Mexico, and California; 38311, New Hampshire, Massachusetts, Connecticut, and Michigan; 38312, New Hampshire, Massachusetts, New York, Pennsylvania, Michigan, West Virginia, Texas, and California; 38410, Missouri, Nebraska, Maryland, Georgia, Florida, Mississippi, and Colorado; 38421, Rhode Island, New Jersey, Pennsylvania, South Carolina, Kentucky, and Tennessee; 38423, Massachusetts, Rhode Island, Connecticut, Michigan, West Virginia, and California.

<sup>2</sup>Shipments of \$1 million or more were reported, but exact figures are withheld to avoid disclosure of individual company figures.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3811.—SCIENTIFIC INSTRUMENTS			
	Materials, parts, containers, and supplies, total.....		(X)	166,172	(X)	<sup>r</sup> 294,801
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	1,410	401	5,043	1,029
331012	Sheet and strip.....	..do.....	14,455	2,415	19,673	3,192
331013	Plates.....	..do.....	(1)	(1)	(1)	(1)
331015	Structural shapes.....	..do.....	417	97	5,142	1,031
331017	Wire and wire products.....	..do.....	(1)	(1)	(1)	(1)
331019	All other carbon steel mill shapes and forms.....	..do.....	14,642	1,774	12,172	1,673
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	352	176	2,773	1,437
331029	All other alloy steel mill shapes and forms.....	..do.....	540	354		
331031	Stainless steel.....	..do.....	1,345	1,946	1,821	2,951
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction only).....	1,000 lbs.....	121	178	(NA)	847
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	763	485	3,810	3,721
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	508	259	1,279	761
335123	Plate, sheet, and strip (including military cups and discs)....	..do.....	130	111		
335127	Pipe and tube.....	..do.....	191	135		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate, and foil.....	..do.....	1,109	776	933	776
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	..do.....	398	352	1,428	1,397
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	..do.....	500	423		
	Castings (rough and semifinished):					
332300	Steel.....	Short tons.....	613	416	1,453	1,563
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	3,405	2,950	2,920	4,729
336200	Copper and copper-base alloy.....	..do.....	498	380	596	614
	Fractional horsepower electric motors (under 1 hp.):					
362110	Timing motors, synchronous and subsynchronous.....	Thousands.....	64	2,814	220	10,314
362115	Other fractional horsepower electric motors (excluding timing motors).....	..do.....	94	3,216	54	1,834
	Bearings:					
356218	Ball.....		(X)	2,161	(X)	6,239
356228	Roller.....					
367101	Electron tubes, except X-ray.....	1,000 units.....	101	283	1,289	4,062
367408	Solid state semiconductors.....	..do.....	4,628	3,742	1,648	10,548
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	109,547	(X)	<sup>r</sup> 214,869
976000	Materials, parts, containers, and supplies, n.s.k.....		(X)	<sup>2</sup> 31,781	(X)	22,214
			INDUSTRY 3821.—MECHANICAL MEASURING DEVICES			
	Materials, parts, containers, and supplies, total.....		(X)	358,337	(X)	224,473
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	12,670	3,490	9,519	2,559
331012	Sheet and strip.....	..do.....	19,297	4,620	12,316	2,804
331013	Plates.....	..do.....	3,470	769	3,273	671
331015	Structural shapes.....	..do.....	1,417	371	2,224	580
331017	Wire and wire products.....	..do.....	1,817	1,005	(NA)	828
331019	All other carbon steel mill shapes and forms.....	..do.....	2,308	1,562	6,819	1,178
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	438	397	1,215	700
331029	All other alloy steel mill shapes and forms.....	..do.....	1,411	1,193	2,695	1,286
331031	Stainless steel.....	..do.....	3,003	4,886	2,544	4,026
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction only).....	1,000 lbs.....	4,831	2,292	974	933
335790	Insulated wire and cable.....	1,000 lbs. (copper content)			1,473	1,237
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	10,286	4,692	11,974	6,925
335123	Plate, sheet, and strip (including military cups and discs)....	..do.....	6,660	3,716		
335127	Pipe and tube.....	..do.....	6,803	2,437		

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
	Mill shapes and forms (except castings)—Continued		INDUSTRY 3821.—MECHANICAL MEASURING DEVICES—Continued			
	Aluminum and aluminum-base alloy:					
335205	Sheet, plate and foil.....	1,000 lbs.....	997	792	1,144	770
	Extruded shapes, (including extruded rod, bar, pipe, tube, etc.).....	...do.....	950	959	1,265	787
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.).....	...do.....	4,057	2,571		
	Castings (rough and seimfinished):					
332300	Steel.....	Short tons....	5,404	5,990	8,033	5,138
336100	Aluminum and aluminum base alloy.....	1,000 lbs.....	16,971	12,512	10,552	8,064
336200	Copper and copper-base alloy.....	...do.....	16,093	11,545	12,411	8,719
	Fractional horsepower electric motors (under 1 hp. ):					
362110	Timing motors, synchronous and subsynchronous.....	1,000 units....	207	3,244	98	1,414
362115	Other fractional horsepower electric motors (excluding timing motors).....	...do.....	134	1,290	83	958
	Bearings:					
356218	Ball.....	.....	(X)	821	(X)	530
356228	Roller.....	.....	(X)	84		
367010	Electron tubes, except X-ray.....	1,000 units....	1,789	2,470	729	1,431
367408	Solid state semiconductors.....	...do.....	2,468	4,795	376	1,568
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	231,620	(X)	155,241
976000	Materials, parts, containers and supplies, n.s.k.....	.....	(X)	248,214	(X)	16,126
			INDUSTRY 3822.—AUTOMATIC TEMPERATURE CONTROLS			
	Materials, parts, containers, and supplies, total.....	.....	(X)	141,812	(X)	90,286
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons....	3,628	1,557	3,643	819
331012	Sheet and strip.....	...do.....	20,053	5,004	12,391	2,511
331013	Plates.....	...do.....	(3)	(3)	(NA)	(NA)
331015	Structural shapes.....	...do.....	355	82	(NA)	(NA)
331017	Wire and wire products.....	...do.....	872	477	(NA)	(NA)
331019	All other carbon steel mill shapes and forms.....	...do.....	31,457	31,043	(NA)	(NA)
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	...do.....	194	297	2,650	1,061
331029	All other alloy steel mill shapes and forms.....	...do.....	294	357		
331031	Stainless steel.....	...do.....	2,237	3,675	1,213	1,806
	Copper and copper-base alloy:					
335728	Bare wire (for electrical conduction only).....	1,000 lbs.....	302	261	1,014	796
335790	Insulated wire and cable.....	1,000 lbs. (copper content)	2,262	1,744	1,491	1,367
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	14,118	6,289	14,026	8,882
335123	Plate, sheet, and strip (including military cups and discs)...	...do.....	5,404	3,617		
335127	Pipe and tube.....	...do.....	4,066	3,576		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	...do.....	1,102	833	2,440	1,419
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.).....	...do.....	2,312	1,455		
335209	All other aluminum mill shapes and forms, (wire, rolled rod and bar, powder, welded tubing, etc.).....	...do.....	4,684	1,199		
	Castings (rough and semifinished):					
332300	Steel.....	Short tons....	724	472	1,189	629
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	7,776	5,133	5,120	3,440
336200	Copper and copper-base alloy.....	...do.....	5,277	2,563	2,535	1,582
	Fractional horsepower electric motors (under 1 hp.):					
362110	Timing motors, synchronous and subsynchronous.....	Number.....	3,513	2,704	1,056	1,275
362115	Other fractional horsepower electric motors (excluding timing motors).....	...do.....	29	452		
	Bearings:					
356218	Ball.....	.....	}	(X)	111	(NA)
356228	Roller.....	.....				
367010	Electron tubes, except X-ray.....	1,000 units....	(D)	(D)	248	231
367408	Solid state semiconductors.....	...do.....	(D)	(D)		
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	95,769	(X)	51,342
976000	Materials, parts, containers and supplies, n.s.k.....	.....	(X)	3,142	(X)	13,126

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3831.—OPTICAL INSTRUMENTS AND LENSES			
	Materials, parts, containers and supplies, total.....		(X)	53,059	(X)	26,999
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	1,310	1,640	(NA)	(NA)
331019	All other carbon steel mill shapes and forms.....	..do.....			(NA)	(NA)
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	222	203	(NA)	(NA)
331029	All other alloy steel mill shapes and forms.....	..do.....			(NA)	(NA)
	Copper and copper-base alloy:					
331031	Stainless steel.....	..do.....	(D)	(D)	(NA)	(NA)
335790	Insulated wire and cable.....	1,000 lbs. (copper content)			(NA)	(NA)
335102	Rod, bar, and mechanical wire including extruded and/or drawn shapes.....	1,000 lbs.....			(NA)	(NA)
335123	Plate, sheet, and strip (including military cups and discs)....	..do.....	221	148	(NA)	(NA)
335127	Pipe and tube.....	..do.....			(NA)	(NA)
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	..do.....	474	414	(NA)	(NA)
335205	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	..do.....	34	25	(NA)	(NA)
335209	All other aluminum mill shapes and forms, (wire rolled rod and bar, powder, welded tubing, etc.).....	..do.....			(NA)	(NA)
	Castings (rough and semifinished):					
332011	Iron (gray and malleable).....	Short tons.....	(D)	(D)	(NA)	(NA)
332300	Steel.....	..do.....	(D)	(D)	(NA)	(NA)
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	457	806	(NA)	(NA)
336200	Copper and copper-base alloy.....	..do.....	(D)	(D)	(NA)	(NA)
	Forgings:					
339100	Iron and steel.....	Short tons.....	(D)	(D)	(NA)	(NA)
	Fractional horsepower electric motors (under 1 hp.):					
362110	Timing motors, synchronous and subsynchronous.....	Thousands.....	4	40	(NA)	(NA)
362115	Other fractional horsepower electric motors (excluding timing motors).....	..do.....	4	99	(NA)	(NA)
	Bearings:					
356218	Ball.....		(X)	87	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	34,295	(NA)	(NA)
976000	Materials, parts, containers and supplies, n.s.k.....		(X)	215,302	(NA)	(NA)
			INDUSTRY 3842.—SURGICAL APPLIANCES AND SUPPLIES			
	Materials, parts, containers and supplies, total.....		(X)	175,762	(X)	155,048
209131	Cotton linters (net weight).....	1,000 lbs.....	2,287	519	(NA)	(NA)
221101	Cotton broad woven fabrics (piece goods).....	1,000 linear yds.	94,975	7,115	(NA)	(NA)
220149	Other broad woven fabrics (piece goods).....	..do.....	2,383	1,790	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	144,482	(NA)	(NA)
976000	Materials, parts, containers and supplies, n.s.k.....		(X)	21,856	(NA)	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind. Revised.

<sup>1</sup>For 1958 and 1963 material codes 331013 and 331017 are included with 331019 to avoid disclosing figures for individual companies.

<sup>2</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

<sup>3</sup>For 1963, 331013 combined with 331019.



**TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962**

Item	Scientific instruments (SIC 3811)	Mechanical measuring devices (SIC 3821)	Automatic temperature controls (SIC 3822)	Optical instruments and lenses (SIC 3831)	Surgical and medical instruments (SIC 3841)	Surgical appliances and supplies (SIC 3842)	Dental equipment and supplies (SIC 3843)	Ophthalmic goods (SIC 3851)
Total cost of purchased fuels and electric energy.....\$1,000..	8,330	7,173	3,360	846	1,377	3,858	875	2,443
Total cost of purchased fuels.....do....	2,079	2,252	1,117	222	504	1,565	371	1,077
Bituminous coal, lignite, and anthracite:								
Quantity.....1,000 short tons..	7	15	(S)	(S)	(S)	10	(S)	(S)
Cost.....\$1,000..	66	162	(S)	(S)	(S)	81	(S)	(S)
Coke and breeze:								
Quantity.....1,000 short tons..	-	-	-	-	-	-	(S)	(S)
Cost.....\$1,000..	-	-	-	-	-	-	(S)	(S)
Fuel oil (distillate and residual):								
Quantity.....1,000 barrels of 42 gallons..	234	303	101	35	46	197	34	126
Cost.....\$1,000..	798	1,011	360	139	177	718	122	370
Gas (natural, manufactured, still, blast furnace, and coke oven):								
Quantity.....million cu.ft..	1,596	1,538	1,164	134	294	(S)	144	958
Cost.....\$1,000..	958	924	713	41	204	(S)	131	422
Other fuels.....do....	257	155	(S)	(S)	(S)	92	107	276
Electric energy:								
Purchased:								
Quantity.....million kw.-hrs..	490	311	178	36	46	146	27	78
Cost.....\$1,000..	6,251	4,921	2,243	624	873	2,293	504	1,366
Generated less sold.....million kw.-hrs..	(S)	(S)	-	-	-	(S)	-	25
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	136	161	50	12	18	59	17	45
Prime movers, total.....do....	11	10	3	1	1	4	(Z)	15
Driving generators.....do....	8	4	(Z)	(Z)	(Z)	1	(Z)	15
Not driving generators.....do....	3	6	3	1	1	3	(Z)	(Z)
Electric motors, total.....do....	125	152	47	11	17	54	17	34
Driven by purchased energy.....do....	125	150	47	11	17	54	17	30
Driven by energy generated at establishment.....do....	(Z)	2	-	-	-	(Z)	-	4
Aggregate horsepower per 100 production workers.....	242	390	266	204	195	335	332	253

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3811-	SCIENTIFIC INSTRUMENTS										
	Entire industry.....	594	33,084	208,171	22,184	44,584	119,836	358,588	200,034	553,920	16,244
	Establishments with—										
	90% or more specialization..	508	20,305	128,444	14,449	28,696	78,704	225,162	130,858	358,570	10,292
	75-89% specialization.....	23	2,001	10,192	1,307	2,720	5,543	18,569	13,042	30,803	524
38111	Aircraft flight, nautical, and navigational instruments and automatic pilots (primary product class of estab.).....	80	15,490	110,670	9,386	18,768	58,474	181,817	73,717	253,458	7,348
	Establishments with—										
	90% or more specialization....	45	8,457	61,457	5,494	10,904	35,261	101,854	46,709	150,908	4,956
	75-89% specialization.....	10	734	4,395	432	845	2,051	7,149	4,641	12,100	81
38112	Laboratory and scientific instruments (primary product class of estab.).....	205	8,048	49,253	5,657	11,225	30,309	95,386	59,992	154,360	4,325
	Establishments with—										
	90% or more specialization....	173	6,046	37,982	4,380	8,648	23,756	70,366	42,871	114,306	2,943
	75-89% specialization.....	10	331	1,845	247	493	1,229	3,031	1,916	4,952	45
38113	Surveying and drafting instruments and laboratory furniture (primary product class of estab.).....	102	8,400	42,195	6,311	12,965	27,290	72,110	58,465	129,157	4,197
	Establishments with—										
	90% or more specialization....	77	4,154	20,836	3,176	6,346	13,318	39,289	31,318	70,534	1,847
	75-89% specialization.....	11	1,524	7,005	1,230	2,602	5,063	11,374	10,056	19,920	518
3821-	MECHANICAL MEASURING DEVICES										
	Entire industry.....	670	62,353	388,874	40,383	81,510	222,826	732,529	415,855	1,143,416	30,914
	Establishments with—										
	90% or more specialization..	539	32,022	194,814	20,432	40,424	110,080	394,801	208,910	598,749	17,639
	75-89% specialization.....	36	8,348	53,521	5,726	11,712	31,736	95,453	54,506	148,906	2,362
38211	Aircraft engine instruments, except flight (primary product class of estab.).....	15	5,299	34,675	3,317	6,845	17,889	55,442	27,816	83,496	1,942
	Establishments with—										
	90% or more specialization....	7	288	1,596	214	435	1,066	2,245	1,883	4,084	177
38212	Integrating meters, nonelectric type (primary product class of estab.).....	33	6,476	39,082	4,925	9,835	26,292	108,848	65,854	174,806	2,629
	Establishments with—										
	90% or more specialization....	24	4,406	27,182	3,258	6,453	17,629	77,936	44,870	121,328	1,774
38213	Industrial process instruments (primary product class of estab.).....	287	33,396	210,483	20,024	40,187	111,876	410,836	189,194	593,962	16,497
	Establishments with—										
	90% or more specialization....	214	18,000	112,082	11,364	22,421	63,188	225,359	106,432	329,811	8,867
	75-89% specialization.....	24	4,484	27,249	2,171	4,235	10,245	45,627	20,786	64,282	4,139
38214	Motor vehicle instruments, except electric (primary product class of estab.).....	24	7,981	52,971	6,546	13,604	39,653	85,078	73,205	156,943	3,804
	Establishments with—										
	90% or more specialization....	13	223	903	189	308	671	2,580	1,691	4,195	58
38216	Other mechanical measuring and controlling instruments (primary product class of estab.).....	86	7,686	43,565	4,430	8,618	21,085	57,595	52,342	112,363	4,008
	Establishments with—										
	90% or more specialization....	55	3,264	19,828	2,055	4,010	10,368	27,186	18,175	44,745	1,814
	75-89% specialization.....	11	803	5,084	406	778	2,026	7,867	3,326	10,658	211
3822-	AUTOMATIC TEMPERATURE CONTROLS										
	Entire industry.....	104	31,685	192,301	22,299	45,459	122,154	379,091	158,091	527,358	10,523
	Establishments with—										
	90% or more specialization..	82	20,392	125,388	14,621	29,720	80,923	251,200	102,161	347,614	6,722



TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3831-	OPTICAL INSTRUMENTS AND LENSES										
	Entire industry.....	280	11,924	79,131	8,306	16,728	47,149	131,917	66,557	196,022	6,163
	Establishments with—										
	90% or more specialization..	244	8,015	53,559	5,549	11,126	31,590	92,880	44,939	135,335	4,523
	75-89% specialization.....	7	2,096	13,343	1,472	2,939	8,062	19,812	9,548	29,463	999
38311	Optical instruments and lenses, except sighting and fire-control equipment (primary product class of estab.).....	144	9,182	62,640	6,226	12,664	36,570	104,027	46,754	148,444	5,063
	Establishments with—										
	90% or more specialization....	118	5,631	39,859	3,739	7,583	22,849	68,582	29,672	96,853	3,536
	75-89% specialization.....	8	1,403	8,536	996	1,986	5,216	12,083	4,748	16,741	326
38312	Sighting and fire-control equipment made from lenses, prisms, etc., produced in this plant (primary product class of estab.)	13	2,224	13,674	1,671	3,269	8,517	22,476	17,961	40,334	784
	Establishments with—										
	90% or more specialization....	6	849	4,822	597	1,091	2,440	9,300	9,298	17,882	233
3841-	SURGICAL AND MEDICAL INSTRUMENTS										
	Entire industry.....	294	15,145	83,332	11,538	22,916	52,520	168,556	126,856	284,014	10,514
	Establishments with—										
	90% or more specialization..	252	9,451	48,677	7,517	15,001	32,747	120,258	66,608	178,789	7,653
	75-89% specialization.....	11	2,578	17,533	1,925	3,775	9,969	21,208	35,849	55,390	1,111
3842-	SURGICAL APPLIANCES AND SUPPLIES										
	Entire industry.....	704	28,267	161,800	18,987	37,904	85,790	370,273	230,054	596,666	17,831
	Establishments with—										
	90% or more specialization..	639	15,876	80,601	11,580	22,734	48,258	173,166	109,855	282,125	7,473
	75-89% specialization.....	17	4,300	28,487	2,720	5,606	16,350	89,144	57,681	144,629	4,774
38421	Surgical, orthopedic and prosthetic appliances and supplies (primary product class of estab.)	441	18,971	114,219	12,558	24,841	57,943	276,779	160,400	435,401	15,004
	Establishments with—										
	90% or more specialization....	388	10,843	55,569	7,897	15,520	33,258	121,320	72,312	193,826	5,758
	75-89% specialization.....	21	2,801	19,200	2,054	4,180	12,800	69,578	41,990	109,581	4,479
38423	Personal industrial safety devices (primary product class of estab.)	75	6,187	32,659	4,346	8,884	19,078	60,148	50,709	108,817	1,877
	Establishments with—										
	90% or more specialization....	50	2,746	13,250	2,052	3,995	7,886	23,331	21,558	43,791	785
38424	Electric hearing aids (primary product class of estab.).....	20	1,888	9,887	1,151	2,360	5,312	24,738	15,482	40,464	642
	Establishments with—										
	90% or more specialization....	17	1,202	6,738	805	1,636	3,790	19,051	10,359	29,482	576
3851-	OPHTHALMIC GOODS										
	Entire industry.....	229	20,296	96,361	16,467	32,771	68,954	177,898	96,611	272,687	9,085
	Establishments with—										
	90% or more specialization..	216	13,834	60,821	11,652	23,038	44,888	131,474	68,575	198,673	5,935

TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3811.—SCIENTIFIC INSTRUMENTS							
Nonferrous foundry (except die casting).....	1	1	-	-	(D)	(D)	-	-
Electroplating and other plating.....	24	18	6	-	72	30	42	-
Heat treating of metals.....	16	14	1	1	132	(D)	(D)	(D)
Automatic screw machine department.....	22	15	7	-	110	33	77	-
Machine shop.....	191	72	79	40	3,081	154	693	2,234
Tool and die shop.....	50	37	9	4	280	62	81	137
Foundry pattern shop.....	5	5	-	-	6	6	-	-
Stamping, blanking and forming of metals.....	76	51	18	7	590	82	168	340
Painting, lacquering and enameling on metals.....	98	81	13	4	333	120	113	100
Plastics molding.....	11	9	-	2	(D)	(D)	(D)	(D)
	INDUSTRY 3821.—MECHANICAL MEASURING DEVICES							
Ferrous foundry.....	29	28	1	-	74	(D)	(D)	-
Nonferrous foundry (except die casting).....	5	2	1	2	(D)	(D)	(D)	(D)
Nonferrous die casting.....	10	3	4	3	150	6	36	108
Electroplating and other plating.....	35	19	12	4	285	33	106	146
Heat treating of metals.....	36	28	8	-	107	39	68	-
Automatic screw machine department.....	61	37	20	4	665	76	235	354
Machine shop.....	222	81	80	61	5,129	162	798	4,169
Tool and die shop.....	94	42	38	14	1,028	88	343	597
Foundry pattern shop.....	5	4	1	-	16	(D)	(D)	-
Stamping, blanking and forming of metals.....	102	68	24	10	1,065	138	222	705
Painting, lacquering and enameling on metals.....	127	100	21	6	486	145	179	162
Plastics molding.....	19	12	2	5	163	(D)	(D)	133
	INDUSTRY 3822.—AUTOMATIC TEMPERATURE CONTROLS							
Nonferrous foundry (except die casting).....	5	1	3	1	80	(D)	(D)	(D)
Nonferrous die casting.....	7	1	3	3	145	(D)	(D)	108
Electroplating and other plating.....	22	7	12	3	246	15	120	111
Heat treating of metals.....	20	14	4	2	124	22	(D)	(D)
Automatic screw machine department.....	30	6	11	13	715	12	101	602
Machine shop.....	41	12	7	22	2,299	18	59	2,222
Tool and die shop.....	32	7	12	13	705	11	136	558
Foundry pattern shop.....	3	3	-	-	7	7	-	-
Stamping, blanking and forming of metals.....	38	16	12	10	881	34	135	712
Painting, lacquering and enameling on metals.....	26	16	5	5	226	35	49	142
Plastics molding.....	8	2	3	3	260	(D)	(D)	222

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

Item	Industry		
	3811	3821	3822
Total number of establishments in the industry.....	594	670	104
Number of establishments which reported one or more of the specified operations.....	244	291	58
Percent of industry production workers in these establishments.....	75-80	90-95	95-100
Number of establishments which reported "none" of the operations apply.....	43	39	8
Percent of industry production workers in these establishments.....	5-10	0-5	0-5
Percent of industry production workers in establishments which completed the metalworking operations inquiry.....	80-85	95-100	95-100

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.





## PHOTOGRAPHIC EQUIPMENT; CLOCKS, WATCHES, AND WATCHCASES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

3861—Photographic Equipment and Supplies

3871—Watches, Clocks, and Parts, Except Watchcases

3872—Watchcases

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1-4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3861—PHOTOGRAPHIC EQUIPMENT AND SUPPLIES

This industry comprises establishments primarily engaged in manufacturing (1) photographic apparatus, equipment, parts, attachments, and accessories, such as still and motion picture cameras and projection apparatus; photocopy and microfilm equipment; blueprinting and diatype (white printing) apparatus and equipment; and other photographic equipment; and (2) sensitized film, paper, cloth, and plates and prepared photographic chemicals for use therewith. Establishments primarily engaged in manufacturing photographic paper stock (unsensitized), and paper mats, mounts, easels and folders for photographic use are classified in Major Group 26; photographic lenses in industry 3831; photographic glass in Major Group 32; chemicals for technical purposes, not specifically prepared and packaged for use in photography, in Major Group 28; and photographic flash, flood, enlarger and projection lamps in industry 3641. For a detailed list of products of industry 3861, refer to table 6A, product codes 3861106 to 3861811.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Photographic Equipment Industry totaled \$1,851 million. This amount included shipments of photographic equipment (primary products) valued at \$1,578 million, shipments of other products (secondary products) valued at \$80 million, and miscellaneous receipts (mainly resales) at \$194 million.

This industry's shipments of photographic equipment represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was 94 percent.



Secondary products shipped by this industry in 1963 included 36112, "Testing equipment for testing electrical, radio, and communication circuits and motors" (\$2 million), and 38311, "Optical instruments and lenses, except sighting and fire-control" (\$5 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 45 percent of the total industry shipments are represented by plants specializing in product classes: 38615, Photographic sensitized film and plates, and 19 percent in 38611, Still picture equipment.

Shipments of photographic equipment by this industry represented 97 percent of all shipments of these products (\$1,631 million) by all industries. In 1958, the coverage ratio was 94 percent. An important industry shipping photographic equipment was industry 3831, Optical Instruments and Lenses, Except Sighting and Fire-control, \$3 million.

The production index for the primary products of the industry increased to 177 in 1963 from the 1958 level of 124. The unit value index for 1963 was 119 compared to 111 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3871—WATCHES, CLOCKS, AND PARTS, EXCEPT WATCHCASES

This industry comprises establishments primarily engaged in manufacturing clocks (including electric), watches, mechanisms for clockwork operated devices, and clock and watch parts. This industry includes establishments primarily engaged in assembling clocks and watches from purchased movements and cases. Establishments primarily engaged in manufacturing watch cases are classified in industry 3872, glass crystals in industry 3231, and unbreakable crystals in industry 3079. For a detailed list of products of industry 3871, refer to table 6A, product codes 3871111 to 3871589.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Watches and Clocks Industry totaled \$511 million. This amount included shipments of watches and clocks (primary products), valued at \$386 million, shipments of other products (secondary products) valued at \$83 million, and miscellaneous receipts (mainly resales) at \$42 million.

This industry's shipments of watches and clocks represented 82 percent of its total product shipments. The industry specialization ratio in 1958 was 88 percent. Secondary products shipped by this industry in 1963 included fractional horsepower motors (\$7 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 43 percent of the total industry shipments are represented by plants specializing in 38711, Clocks.

Shipments of watches and clocks by this industry represented 95 percent of all shipments of these products (\$406 million) by all industries. In 1958, the coverage ratio was 95 percent.

The production index for the primary products of the industry increased to 130 in 1963 from the 1958 level of 93. The unit value index for 1963 was 105 compared to 107 in 1958. Both indexes were computed on a basis of 1954 = 100.

### 3872—WATCHCASES

This industry comprises establishments primarily engaged in manufacturing watchcases, for sale as such. Establishments primarily engaged in assembling complete watches by assembling purchased movements with watchcases of their own manufacture are classified in industry 3871. For a detailed list of products of industry 3872, refer to table 6A, product codes 3872011 to 3872071.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Watchcases Industry totaled \$34 million. This amount included shipments of watchcases (primary products) valued at \$28 million, shipments of other products (secondary products) valued at \$4 million, and miscellaneous receipts at \$1 million.

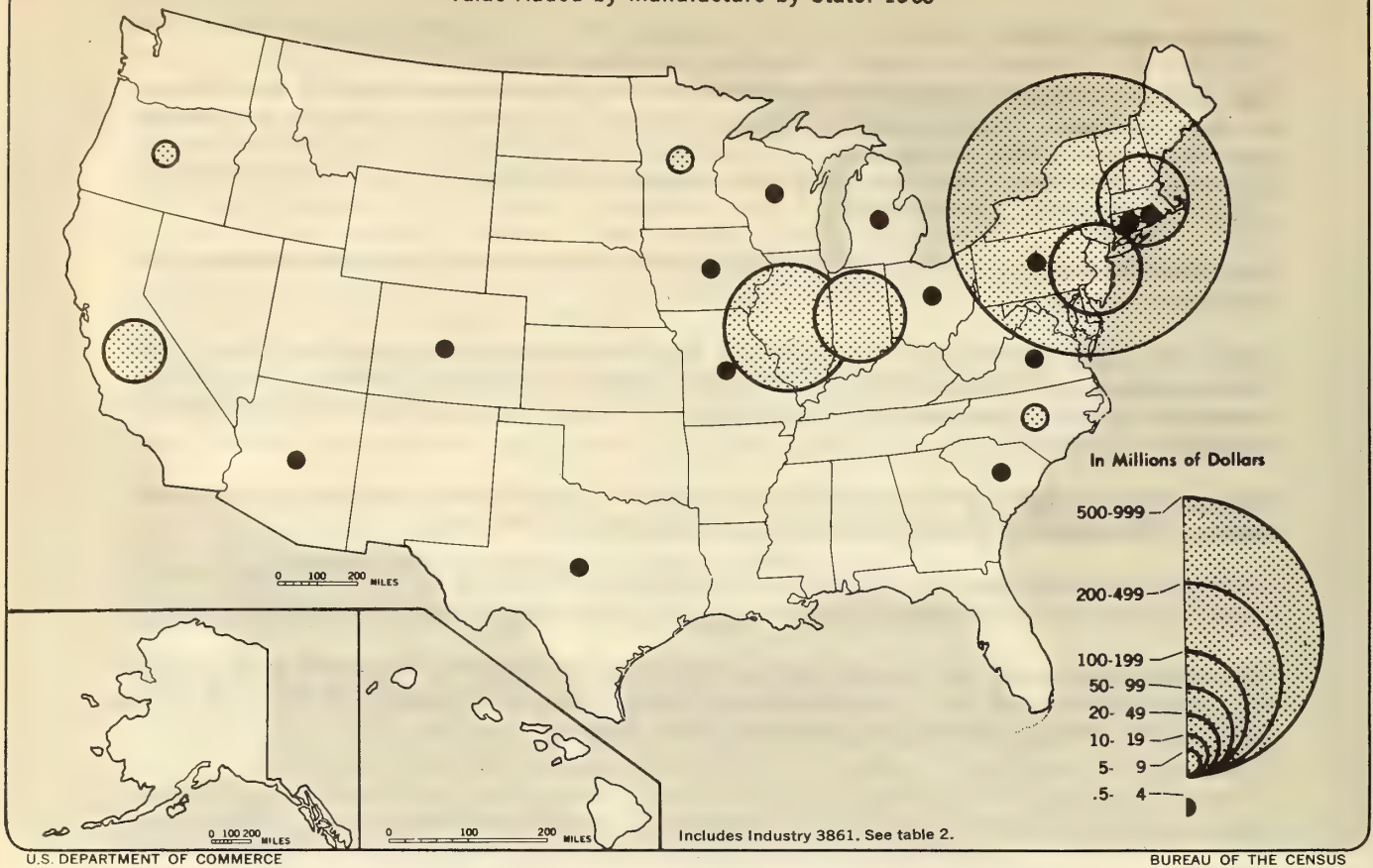
This industry's shipments of watchcases represented 86 percent of its total product shipments. The industry specialization ratio in 1958 was 80 percent.

Shipments of watchcases by this industry represented 97 percent of all shipments of these products (\$29 million) by all industries. In 1958, the coverage ratio was 98 percent.

The production index for the primary products of the industry increased to 92 in 1963 from the 1958 level of 72. The unit value index for 1963 was 91 compared to 112 in 1958. Both indexes were computed on a basis of 1954 = 100.



# **PHOTOGRAPHIC EQUIPMENT: SIC 386** **Value Added by Manufacture by State: 1963**



# **WATCHES, CLOCKS, AND WATCHCASES: SIC 387** **Value Added by Manufacture by State: 1963**

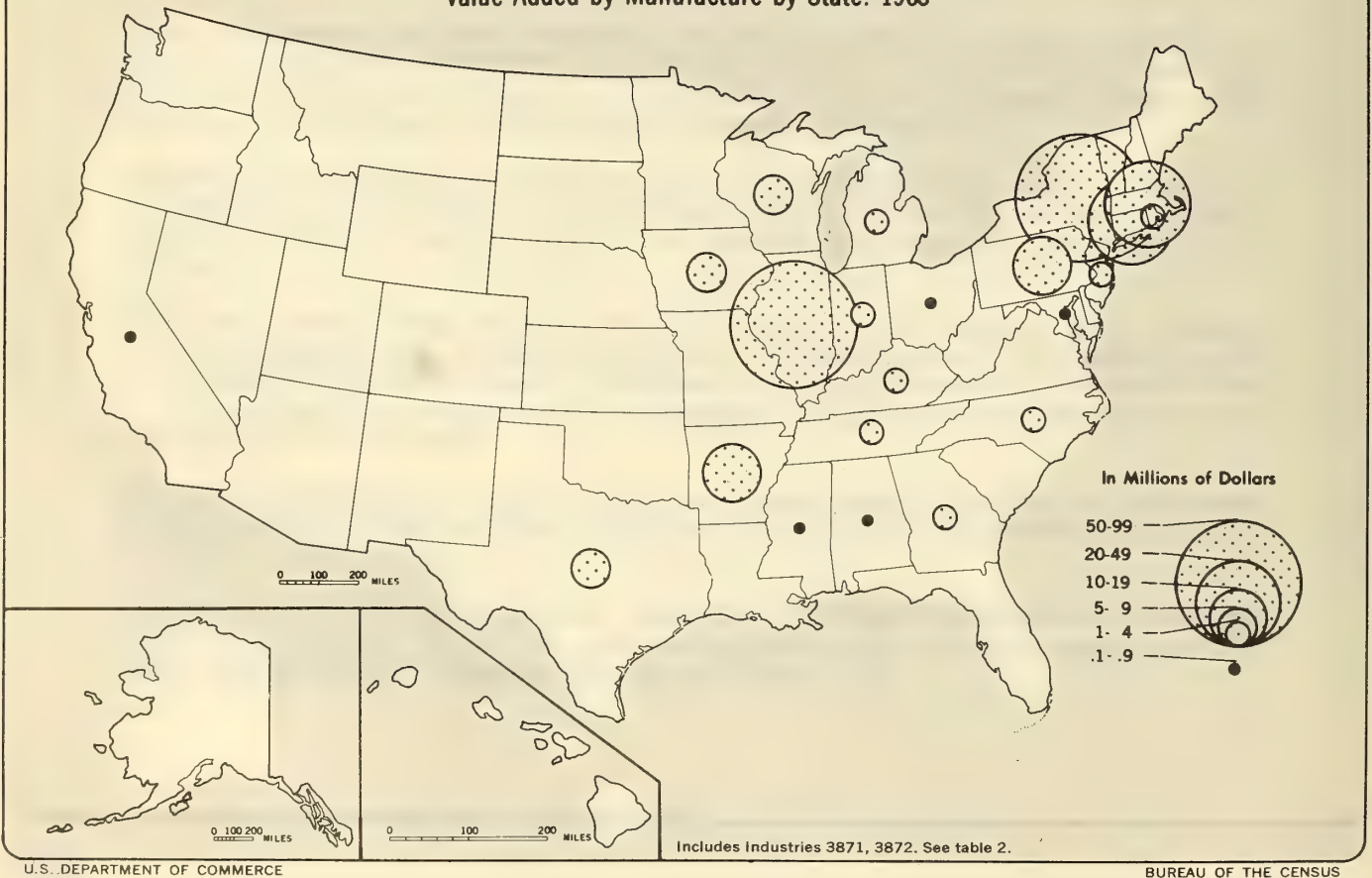


TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3861.—PHOTOGRAPHIC EQUIPMENT														
1963.....	499	538	187	64,937	498,828	39,248	77,753	251,566	1,270,132	580,544	1,851,213	78,626	95	97
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	59,429	439,998	35,582	70,612	223,000	1,098,113	573,506	1,635,950	57,187	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	61,226	427,821	37,020	72,929	217,795	987,015	521,531	1,517,764	49,250	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	62,420	418,832	38,872	76,500	218,966	978,911	505,631	1,466,983	60,000	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	56,099	376,926	35,242	70,648	199,889	876,785	450,709	1,318,009	47,089	(NA)	(NA)
1958.....	450	480	159	60,262	368,970	38,542	74,256	201,597	788,750	412,319	1,204,905	46,770	94	94
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	68,495	391,182	45,587	90,384	225,463	802,831	398,901	1,134,382	49,635	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	67,442	366,137	45,557	91,475	217,008	754,040	345,694	1,074,179	45,997	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	64,871	328,749	43,851	86,908	197,496	686,178	331,090	994,711	41,841	(NA)	(NA)
1954.....	428	449	150	63,008	308,324	43,827	86,196	189,745	595,900	354,834	960,119	38,664	88	96
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	60,165	283,945	43,366	87,952	187,846	561,163	325,611	886,774	33,129	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	54,839	249,054	39,239	78,741	157,922	481,696	249,808	731,504	24,879	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	47,018	200,685	33,827	67,080	130,871	367,732	219,612	587,344	24,323	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	43,198	167,297	30,470	(NA)	104,983	324,459	174,856	499,315	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	43,811	161,319	32,130	59,503	99,037	272,056	160,801	432,857	23,961	(NA)	(NA)
1947.....	(NA)	369	(NA)	55,624	172,973	42,365	(NA)	121,456	278,502	178,995	457,497	(NA)	93	97
1939.....	(NA)	160	(NA)	23,248	38,873	16,434	(NA)	23,868	87,816	45,236	133,052	(NA)	(NA)	(NA)
1937.....	(NA)	109	(NA)	23,212	39,705	18,450	(NA)	28,876	79,235	36,653	115,888	(NA)	(NA)	(NA)
1935.....	(NA)	118	(NA)	15,460	23,208	12,000	(NA)	15,807	47,816	26,150	73,966	(NA)	(NA)	(NA)
1933.....	(NA)	84	(NA)	10,789	14,131	8,975	(NA)	10,155	41,875	11,985	53,860	(NA)	(NA)	(NA)
1929.....	(NA)	115	(NA)	16,302	28,371	12,967	(NA)	20,507	72,434	30,393	102,827	(NA)	(NA)	(NA)
1921.....	(NA)	136	(NA)	14,376	20,854	10,690	(NA)	13,771	47,759	22,836	70,595	(NA)	(NA)	(NA)
1919.....	(NA)	187	(NA)	16,300	19,478	13,465	(NA)	14,900	54,586	33,807	88,393	(NA)	(NA)	(NA)
1914.....	(NA)	146	(NA)	11,143	8,706	8,674	(NA)	5,545	27,503	11,539	39,042	(NA)	(NA)	(NA)
1909.....	(NA)	103	(NA)	6,537	4,499	5,195	(NA)	3,037	15,853	6,708	22,561	(NA)	(NA)	(NA)
1899.....	(NA)	153	(NA)	3,913	1,896	3,444	(NA)	1,441	4,421	3,378	7,799	(NA)	(NA)	(NA)
INDUSTRY 3871.—WATCHES AND CLOCKS														
1963.....	150	167	76	27,047	144,179	20,983	41,171	92,404	288,053	230,348	511,168	8,730	82	95
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,029	127,734	18,053	35,445	77,890	240,142	191,560	427,266	(8,031)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,429	118,088	16,396	32,603	71,169	219,657	187,057	403,081	(9,365)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,673	124,430	18,748	36,045	76,016	225,703	189,689	408,508	(5,122)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	25,434	125,100	20,184	40,025	81,530	240,839	180,745	406,681	4,552	(NA)	(NA)
1958.....	153	168	65	23,505	106,739	18,308	36,080	70,808	165,158	158,285	334,928	4,607	88	95
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,633	102,461	16,396	30,519	65,882	172,193	125,085	294,386	(S)	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,977	111,789	19,301	37,037	71,961	197,377	142,212	331,416	8,607	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	25,700	109,423	20,149	39,183	73,306	182,949	138,446	326,930	4,372	(NA)	(NA)
1954.....	141	145	59	25,708	103,232	20,282	39,125	67,962	181,868	162,235	343,786	3,511	82	90
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	29,277	117,408	24,440	48,814	83,098	206,879	206,408	413,287	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	28,437	106,090	23,653	46,259	76,665	184,591	176,913	361,504	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	30,604	110,389	25,583	52,037	81,435	181,360	184,694	366,054	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	29,268	93,845	24,618	48,402	68,185	171,275	170,148	341,423	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	28,688	87,198	23,993	47,739	63,783	134,108	124,629	258,737	(NA)	(NA)	(NA)
1947.....	183	194	73	34,623	93,331	30,237	60,899	70,372	169,474	171,725	341,199	4,743	97	98
1939.....	(NA)	64	(NA)	(NA)	(NA)	17,335	(NA)	19,619	47,169	34,306	81,475	(NA)	(NA)	(NA)
1937.....	(NA)	75	(NA)	25,785	33,250	23,223	(NA)	27,559	59,490	38,444	97,934	(NA)	(NA)	(NA)
1935.....	(NA)	76	(NA)	20,291	22,596	18,026	(NA)	18,280	38,530	22,674	61,204	(NA)	(NA)	(NA)
1933.....	(NA)	53	(NA)	14,242	12,245	12,850	(NA)	10,003	22,188	9,468	31,656	(NA)	(NA)	(NA)
1931.....	(NA)	75	(NA)	(NA)	(NA)	16,213	(NA)	15,686	32,683	12,880	45,563	(NA)	(NA)	(NA)
1929.....	(NA)	81	(NA)	23,924	31,422	21,450	(NA)	25,750	56,079	21,388	77,467	(NA)	(NA)	(NA)
1927.....	(NA)	80	(NA)	24,726	32,386	22,472	(NA)	27,284	55,533	16,250	71,783	(NA)	(NA)	(NA)
1925.....	(NA)	83	(NA)	24,412	30,663	22,361	(NA)	26,274	51,523	15,474	66,997	(NA)	(NA)	(NA)
1923.....	(NA)	80	(NA)	22,983	28,047	21,326	(NA)	24,129	43,086	17,387	60,473	(NA)	(NA)	(NA)
1921.....	(NA)	77	(NA)	20,810	24,020	19,099	(NA)	20,535	31,125	12,108	43,233	(NA)	(NA)	(NA)
1919.....	(NA)	91	(NA)	26,752	28,684	24,722	(NA)	24,873	42,646	14,120	56,766	(NA)	(NA)	(NA)
1914.....	(NA)	88	(NA)	21,186	13,448	19,814	(NA)	11,557	19,302	7,020	26,322	(NA)	(NA)	(NA)
1909.....	(NA)	91	(NA)	(NA)	(NA)	19,288	(NA)	10,516	18,586	6,096	24,682	(NA)	(NA)	(NA)
1904.....	(NA)	69	(NA)	19,226	10,864	18,358	(NA)	9,721	15,719	5,444	21,163	(NA)	(NA)	(NA)
1899.....	(NA)	79	(NA)	13,689	7,057	13,248	(NA)	6,390	9,901	4,425	14,326	(NA)	(NA)	(NA)

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
	INDUSTRY 3872.—WATCHCASES													
1963.....	51	53	22	2,706	13,415	2,302	4,548	10,375	19,218	13,391	33,620	500	86	97
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,293	11,646	2,011	3,937	9,052	11,997	11,528	24,578	(Z)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,080	10,358	1,812	3,328	8,075	10,296	9,822	22,249	(Z)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,639	12,453	2,340	4,357	9,846	16,409	12,822	29,376	(S)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	3,109	14,699	2,654	5,257	11,332	20,524	16,310	35,713	(S)	(NA)	(NA)
1958.....	58	61	24	2,652	12,574	2,227	4,352	9,434	18,398	14,836	34,660	(Z)	80	98
1954.....	63	64	28	3,795	15,957	3,308	6,612	12,841	18,808	14,990	35,229	(Z)	86	85
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	4,451	15,052	3,790	7,489	11,227	21,594	13,707	35,301	(NA)	(NA)	(NA)
1947.....	81	82	31	5,558	16,980	4,880	10,199	13,091	24,986	19,508	44,494	521	87	94
1939.....	(NA)	42	(NA)	3,080	4,298	2,409	(NA)	2,940	5,804	3,988	9,792	(NA)	(NA)	(NA)
1937.....	(NA)	29	(NA)	2,868	4,126	2,451	(NA)	3,156	6,176	4,182	10,358	(NA)	(NA)	(NA)
1935.....	(NA)	29	(NA)	2,364	3,070	2,016	(NA)	2,329	4,207	2,776	6,983	(NA)	(NA)	(NA)
1933.....	(NA)	20	(NA)	1,316	1,216	1,169	(NA)	1,006	1,897	760	2,657	(NA)	(NA)	(NA)
1931.....	(NA)	31	(NA)	(NA)	(NA)	1,669	(NA)	1,767	2,858	1,361	4,219	(NA)	(NA)	(NA)
1929.....	(NA)	40	(NA)	3,921	5,952	3,404	(NA)	4,626	8,860	4,631	13,491	(NA)	(NA)	(NA)
1927.....	(NA)	40	(NA)	3,944	5,799	3,360	(NA)	4,326	8,414	5,311	13,725	(NA)	(NA)	(NA)
1925.....	(NA)	45	(NA)	4,025	5,527	3,480	(NA)	4,463	8,743	6,050	14,793	(NA)	(NA)	(NA)
1923.....	(NA)	57	(NA)	4,987	6,796	4,325	(NA)	5,414	10,318	7,499	17,817	(NA)	(NA)	(NA)
1921.....	(NA)	37	(NA)	4,323	5,293	3,698	(NA)	4,217	8,181	5,625	13,806	(NA)	(NA)	(NA)
1919.....	(NA)	33	(NA)	4,572	5,317	3,900	(NA)	4,001	11,413	8,206	19,619	(NA)	(NA)	(NA)
1914.....	(NA)	31	(NA)	3,832	2,351	3,514	(NA)	1,938	3,829	4,002	7,831	(NA)	(NA)	(NA)
1909.....	(NA)	29	(NA)	(NA)	(NA)	4,569	(NA)	2,428	5,481	5,034	10,515	(NA)	(NA)	(NA)
1904.....	(NA)	28	(NA)	4,602	2,785	4,221	(NA)	2,171	4,198	4,429	8,627	(NA)	(NA)	(NA)
1899.....	(NA)	30	(NA)	4,142	2,214	3,907	(NA)	1,925	3,390	4,394	7,784	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: **All employees:** For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). **Production workers:** For 1947 and prior years figures represent an average of 12 monthly figures. **Value added:** Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. **Cost of materials:** Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. **Value of shipments:** Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$500 thousand.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
	Total	With 20 employees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
	INDUSTRY 3861.—PHOTOGRAPHIC EQUIPMENT												
Total.....	538	187	64,937	498,828	39,248	77,753	251,566	1,270,132	580,544	1,851,213	78,626	60,262	788,750
New England.....	32	13	5,335	34,798	3,037	6,173	16,109	81,598	69,327	156,115	(D)	3,821	58,525
Massachusetts....	18	8	5,017	32,979	2,858	5,810	15,193	78,330	66,086	149,191	(D)	2,938	50,522
Middle Atlantic....	208	83	43,465	360,133	25,932	50,830	180,510	952,470	349,794	1,292,045	58,613	42,283	594,132
New York.....	145	57	39,401	333,090	23,027	45,184	164,684	882,624	302,397	1,174,218	53,090	38,715	560,130
New Jersey.....	43	16	3,652	24,991	2,611	5,057	14,618	65,869	41,134	107,547	5,302	3,213	31,009
Pennsylvania.....	20	10	412	2,052	294	589	1,208	3,977	6,263	10,280	221	355	2,993
East North Central.	122	45	9,688	60,033	6,182	11,854	31,107	163,929	109,147	276,794	5,419	10,045	97,011
Ohio.....	18	6	319	1,867	219	456	1,176	3,677	2,122	5,288	138	273	2,783
Illinois.....	68	31	7,787	50,187	4,807	9,260	25,044	101,586	80,688	186,913	2,799	7,903	76,314
Wisconsin.....	8	3	280	1,209	202	280	730	1,373	2,143	4,073	102	311	1,308
West North Central.	27	7	1,030	5,269	717	1,500	3,275	14,008	9,784	25,690	290	862	9,073
Missouri.....	13	3	200	911	162	347	633	4,871	2,751	7,670	32	245	2,040
South.....	37	10	1,518	8,761	728	1,506	3,148	11,251	12,991	23,754	(D)	312	2,900
Virginia.....	5	3	193	1,089	126	275	603	1,691	710	2,321	76	110	883
Mountain.....	10	2	170	1,104	131	311	776	2,205	1,185	3,433	(D)	117	861
Pacific.....	102	27	3,731	28,730	2,521	5,579	16,641	44,671	28,316	73,382	(D)	2,822	26,248
	INDUSTRY 3871.—WATCHES AND CLOCKS												
Total.....	167	76	27,047	144,179	20,983	41,171	92,404	288,053	230,348	511,168	8,730	23,505	165,158
Northeast.....	102	45	14,094	82,485	10,246	20,036	48,596	168,132	138,337	303,317	4,159	( <sup>2</sup> )	( <sup>2</sup> )
Massachusetts....	10	6	3,284	17,395	2,462	4,698	11,679	45,177	17,734	62,487	1,106	2,502	22,899
Connecticut.....	10	8	3,883	21,061	2,796	5,425	12,157	44,080	29,765	73,998	693	5,043	25,408
New York.....	68	24	4,625	30,278	3,281	6,509	15,875	56,312	77,539	132,632	968	3,462	34,501
All other divisions	65	31	12,953	61,694	10,737	21,135	43,808	119,921	92,011	207,851	4,571	( <sup>2</sup> )	( <sup>2</sup> )
Illinois.....	24	14	6,385	34,305	5,040	9,789	23,255	61,052	42,610	100,877	2,074	6,445	31,891
	INDUSTRY 3872.—WATCHCASES												
Total.....	53	22	2,706	13,415	2,302	4,548	10,375	19,218	13,391	33,620	500	2,652	18,398
Northeast.....	50	21	2,435	12,247	2,069	4,101	9,543	17,791	12,432	31,258	485	( <sup>2</sup> )	( <sup>2</sup> )
All other divisions	3	1	271	1,168	233	447	832	1,427	959	2,362	15	( <sup>2</sup> )	( <sup>2</sup> )

(D) Withheld to avoid disclosing figures for individual companies.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3861, Photographic Equipment: New England—Rhode Island, 2 (20-99); Connecticut, 12 (250-999); East North Central—Indiana, 8 (1,097); Michigan, 19 (201); West North Central—Minnesota, 8 (699); Iowa, 2 (20-99); Nebraska, 2 (1-19); Kansas, 2 (20-99); South Atlantic—Maryland, 4 (1-19); District of Columbia, 2 (20-99); North Carolina, 3 (763); South Carolina, 1 (250-499); Florida, 5 (20-99); East South Central—Kentucky, 2 (1-19); Tennessee, 1 (1-19); West South Central—Louisiana, 3 (20-99); Texas, 11 (101); Mountain—Colorado, 6 (100-249); Arizona 2 (20-99); Utah, 2 (1-19); Pacific—Washington, 3 (1-19); Oregon, 3 (489); California, 95 (2,500-4,999); Hawaii, 1 (1-19).

SIC 3871, Watches and Clocks: Middle Atlantic—New Jersey, 8 (250-499); Pennsylvania, 6 (1,000-2,499); East North Central—Ohio, 1 (20-99); Indiana, 4 (467); Michigan, 3 (100-249); Wisconsin, 4 (564); West North Central—Minnesota, 1 (1-19); Iowa, 1 (500-999); South Atlantic—Maryland, 1 (20-99); District of Columbia, 1 (1-19); North Carolina, 2 (250-499); Georgia, 3 (607); Florida, 1 (1-19); East South Central—Kentucky, 2 (100-249); Tennessee, 1 (250-499); Alabama, 1 (20-99); Mississippi, 1 (100-249); West South Central—Arkansas, 1 (1,000-2,499); Louisiana, 1 (1-19); Oklahoma, 1 (1-19); Texas, 3 (890); Pacific—Washington, 1 (1-19); California, 7 (20-99).

SIC 3872, Watchcases: New England—Rhode Island, 1 (500-999); Connecticut, 1 (250-499); Middle Atlantic—New York, 46 (1,000-2,499); New Jersey, 2 (20-99); East North Central—Michigan, 1 (250-499); West South Central—Oklahoma, 1 (1-19); Pacific—California, 1 (1-19).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.



TABLE 3. Detailed Statistics: 1963

Item	Photographic equipment (SIC 3861)	Watches and clocks (SIC 3871)	Watchcases (SIC 3872)
Primary product specialization ratio.....	.95	.82	.86
Coverage ratio.....	.97	.95	.97
Establishments, total.....number..	538	167	53
With 1 to 19 employees.....do....	351	91	31
With 20 to 99 employees.....do....	119	39	17
With 100 employees or more.....do....	68	37	5
Proprietors and working partners.....do....	181	72	18
All employees (average for the year).....do....	64,937	27,047	2,706
Payroll (all employees), total for year.....\$1,000..	498,828	144,179	13,415
Production workers:			
Average for the year.....number..	39,248	20,983	2,302
March.....do....	37,694	19,463	2,534
May.....do....	38,329	20,179	2,369
August.....do....	40,598	21,688	2,518
November.....do....	40,369	22,595	1,784
Man-hours.....1,000..	77,753	41,171	4,548
January-March.....do....	18,987	9,821	1,164
April-June.....do....	19,303	10,134	1,086
July-September.....do....	19,311	9,962	1,126
October-December.....do....	20,152	11,254	1,172
Wages.....\$1,000..	251,566	92,404	10,375
Cost of materials, etc., total.....do....	580,544	230,348	13,391
Materials, parts, containers, and supplies consumed.....do....	482,707	207,170	12,249
Cost of resales.....do....	72,111	20,514	-
Fuels consumed.....do....	7,888	591	109
Electric energy:			
Purchased:			
Quantity.....million kw.-hrs..	398	93	13
Cost.....\$1,000..	5,219	1,494	265
Generated less sold.....million kw.-hrs..	(D)	(D)	-
Contract work.....\$1,000..	12,619	581	768
Value of shipments (including resales), total.....do....	1,851,213	511,168	33,620
Value of resales.....do....	126,486	23,058	-
Value added by manufacture, adjusted.....do....	1,270,132	288,053	19,218
Manufacturers' inventories:			
Beginning of year, total.....do....	279,302	84,877	6,844
Finished products.....do....	97,155	34,776	1,271
Work-in-process.....do....	98,887	36,159	3,824
Materials, supplies, fuel, etc.....do....	83,260	13,942	1,749
End of year, total.....do....	289,511	89,535	5,917
Finished products.....do....	89,046	38,448	1,182
Work-in-process.....do....	106,459	39,720	2,902
Materials, supplies, fuel, etc.....do....	94,006	11,367	1,833
Expenditures for plant and equipment, total.....do....	79,590	9,349	506
New, total.....do....	78,626	8,730	500
New structures and additions to plant.....do....	17,859	1,621	12
New machinery and equipment.....do....	60,767	7,109	488
Used plant and equipment.....do....	964	619	6
Selected operating ratios:			
Payroll/Total employment.....	7,682	5,331	4,958
Production workers/Total employment.....	.60	.78	.85
Man-hours/Production workers.....	1,981	1,962	1,976
Production worker wages/Man-hours.....	3.24	2.24	2.28
Cost of materials and payrolls/Total value of shipments.....	.58	.73	.80
Cost of materials/Total value of shipments.....	.31	.45	.40
Adjusted value added/Total employment.....	19,559	10,650	7,102
Salaries and wages/Adjusted value added.....	.39	.50	.70

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
	INDUSTRY 3861.—PHOTOGRAPHIC EQUIPMENT										
Establishments.....number..	538	195	86	70	76	43	32	18	9	6	3
All employees:											
Total.....do....	64,937	318	562	931	2,398	2,870	4,802	5,942	6,435	40,679	(D)
Payroll.....\$1,000..	498,828	1,651	3,196	5,361	13,363	18,995	28,000	34,973	43,304	349,985	(D)
Value added, adjusted.....do....	1,270,132	4,112	7,163	11,823	25,804	38,671	85,858	95,295	118,381	883,025	(D)
Value of shipments.....do....	1,851,213	7,192	11,927	20,323	51,681	65,365	141,110	167,559	184,926	1,201,130	(D)
Capital expenditures, new...do....	78,626	<sup>1</sup> 1,038	276	369	1,635	1,195	3,685	3,781	6,066	60,581	(D)
	INDUSTRY 3871.—WATCHES AND CLOCKS										
Establishments.....number..	167	62	17	12	27	12	12	12	6	6	1
All employees:											
Total.....do....	27,047	109	113	162	937	769	2,026	4,704	3,963	14,264	(D)
Payroll.....\$1,000..	144,179	563	548	784	4,909	3,612	10,595	25,432	19,384	78,352	(D)
Value added, adjusted.....do....	288,053	1,162	1,833	1,543	10,429	8,007	22,758	46,117	53,526	142,678	(D)
Value of shipments.....do....	511,168	<sup>2</sup> 2,379	4,420	3,460	22,194	16,611	50,365	89,414	78,910	243,415	(D)
Capital expenditures, new...do....	8,730	<u>1,481</u>	(D)	(D)	651	573	721	888	795	3,621	(D)
	INDUSTRY 3872.—WATCHCASES										
Establishments.....number..	53	18	9	4	10	7	2	2	1	-	-
All employees:											
Total.....do....	2,706	30	61	68	330	899	(D)	1,318	(D)	-	-
Payroll.....\$1,000..	13,415	175	279	342	1,780	4,435	(D)	6,404	(D)	-	-
Value added, adjusted.....do....	19,218	258	394	460	2,666	6,549	(D)	8,891	(D)	-	-
Value of shipments.....do....	33,620	574	852	982	5,903	10,931	(D)	14,378	(D)	-	-
Capital expenditures, new...do....	500	<u>2</u>	(D)	11	24	93	(D)	367	(D)	-	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

<sup>1</sup>Includes capital expenditures for plants under construction but not in operation which constitute \$500-\$1,000 thousand of the total for the size class.<sup>2</sup>Includes capital expenditures for plants under construction but not in operation which constitute a small proportion of the total for the size class.

TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
						Col. B Col. B+C (percent)				Col. B Col. F (percent)
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)		(\$1,000)	(\$1,000)	(\$1,000)	
		A	B	C	D	E	F	G	H	I
3861	Photographic equipment.....1963..	1,851,213	1,578,353	78,758	194,102	95	1,631,400	1,578,353	53,047	97
	.....1958..	1,204,905	998,343	61,579	144,983	94	1,061,317	998,343	62,974	94
3871	Watches and clocks.....1963..	511,168	385,987	82,905	42,276	82	406,168	385,987	20,181	95
	.....1958..	334,928	277,011	36,156	21,761	88	291,524	277,011	14,513	95
3872	Watchcases.....1963..	33,620	28,410	4,488	722	86	29,372	28,410	962	97
	.....1958..	34,660	27,290	6,866	504	80	27,798	27,290	508	98

Note: See Introduction for an explanation of terms used.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)

miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Photo-graphic equip-ment (SIC 3861)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Watches and clocks (SIC 3871)	Other industries
PHOTOGRAPHIC EQUIPMENT INDUSTRY					WATCHES AND CLOCKS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	1,851,213	(X)		Total shipments and receipts of the industry.....	(X)	511,168	(X)
	Primary products.....	1,631,400	1,578,353	53,047		Primary products.....	406,168	385,987	20,181
38611	Still picture equipment.....	223,639	191,105	132,534	38711	Clocks.....	173,839	154,803	19,036
38612	Photocopying, microfilming blue-printing, brownprinting, Vandyke, and white printing equipment.....	202,873	200,361	2,512	38714	Watches with imported movements and parts for all clocks and watches.....	112,793	112,793	(6)
38613	Motion picture equipment.....	127,902	116,937	210,965	38715	Watches with domestic movements and parts for all clocks and watches.....	102,249	101,104	1,145
38615	Sensitized photographic film and plates.....	604,928	602,838	2,090	38710	Interplant transfers of clock and watch parts and semifinished components, and watches, clocks and parts, n.s.k.....	17,287	17,287	(7)
38616	Sensitized photographic paper and cloth, silver halide type..	191,306	191,306	(3)		Secondary products.....	(X)	82,905	(X)
38617	Sensitized photographic paper and cloth other than silver halide type.....	128,090	125,286	2,804	36211	Fractional horsepower motors....	(X)	87,231	(X)
38618	Prepared photographic chemicals.	74,294	72,687	1,607		All other secondary products....	(X)	75,674	(X)
38610	Photographic equipment and supplies, n.s.k.....	78,368	77,833	535		Miscellaneous receipts.....	(X)	42,276	(X)
	Secondary products.....	(X)	78,758	(X)		Contract work.....	(X)	871	(X)
36112	Testing equipment for testing electrical, radio, and communication circuits and motors....	(X)	2,059	(X)		Resales.....	(X)	23,058	(X)
38311	Optical instruments and lenses, except sighting and fire-control equipment.....	(X)	5,450	(X)		Other miscellaneous receipts....	(X)	18,347	(X)
	All other secondary products....	(X)	471,249	(X)			All industries	Watch-cases (SIC 3872)	Other industries
	Miscellaneous receipts.....	(X)	194,102	(X)	38720	WATCHCASES INDUSTRY			
93000	Contract work.....	(X)	9,081	(X)		Total shipments and receipts of the industry.....	(X)	33,620	(X)
99989	Resales.....	(X)	126,486	(X)		Watchcases.....	29,372	28,410	962
99980	Other miscellaneous receipts....	(X)	58,535	(X)		Secondary products.....	(X)	4,488	(X)
						Miscellaneous receipts.....	(X)	722	(X)
						Contract work.....	(X)	82	(X)
						Other miscellaneous receipts....	(X)	640	(X)

(X) Not applicable. n.s.k. Not specified by kind.

<sup>1</sup>Includes \$3,098 million shipped by industry 3831, "Optical Instruments and Lenses." In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3651, Radio and TV Receiving Sets; 3622, Radio and TV Communications Equipment and, 3871, Watches and Clocks.

<sup>2</sup>Includes \$2 million shipped by the following industries; however, the exact figures are withheld to avoid disclosing figures for individual companies: 3651, Radio and TV Receiving Sets, and 3662, Radio and TV Communications Equipment.

<sup>3</sup>Figures for sensitized photographic film and cloth, silver halide type, made in other industries (less than 1 percent of the total), are included with shipments by the Photographic Equipment Industry to avoid disclosing individual company figures.

<sup>4</sup>Includes shipments of over \$2 million of each of the following product classes; however, the exact values are withheld to avoid disclosing individual company figures: 35595, Other special industry machinery and equipment; 36624, Electronic navigational aids; 36625, Electronic search and detection apparatus; 36795, Other electronic components and accessories, n.e.c.; and, 38510, Ophthalmic goods.

<sup>5</sup>Includes shipments of over \$2 million by industry 3822, Automatic Temperature Controls. However, the exact value is withheld to avoid disclosing individual company figures.

<sup>6</sup>Figures for watches with imported movements, made in other industries (less than 1 percent of the total) are included with shipments by the Watches and Clocks Industry to avoid disclosing individual company figures.

<sup>7</sup>Figures for clocks, watches and clock and watch parts, n.s.k., made in other industries (considerably less than 1 percent) are included with shipments by the Watches and Clocks Industry to avoid disclosing individual company figures.

<sup>8</sup>Includes shipments of over \$2 million of each of the following product classes; however, the exact values are withheld to avoid disclosing individual company figures: 19291, Ammunition over 30mm; 33560, Rolled, drawn and extruded nonferrous metal mill products, except copper and aluminum; 35790, Addressing, dictating, duplicating, and office machines, n.e.c.; 36343, Other small household electric appliances; 36430, Current-carrying wiring devices; 36623, Intercommunication equipment (except telephone and telegraph) and electric alarm and signal systems and devices; 37292, Guided missile components and subassemblies, n.e.c.; 38111, Aircraft, flight, nautical, and navigational instruments and automatic pilots; 38611, Still picture equipment; and 39111, Jewelry, made of platinum metals and karat gold.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3861- --	PHOTOGRAPHIC EQUIPMENT AND SUPPLIES.....	.....	(X)	1,631,400	(X)	1,061,317
38611 --	Still picture equipment.....	.....	(X)	223,639	(X)	179,448
	Still cameras:					
	Hand type cameras:					
	Variable focus (or focusing type) with adjustable shutter speeds:					
38611 06	Using film, or paper, 35 mm or under:					
	Aperture and/or shutter speed set by built-in photo-electric device.....	No. of units..	7,765,907	62,099	553,121	18,187
38611 08	All other.....	..do.....				
38611 12	Using film or paper, over 35 mm, or sheet and pack film:	..do.....				
38611 14	Aperture and/or shutter speed set by built-in photo-electric device.....	..do.....				
	All other.....	..do.....				
	Other hand types (fixed focus and/or time and single shutter speed) using roll film:					
38611 16	Aperture and/or shutter speed set by built-in photo-electric device.....	..do.....	2,954,514		2,954,514	15,861
38611 18	All other.....	..do.....				
	Process cameras for photoengraving and photolithography: <sup>1</sup>					
38611 21	Cameras, under 31" x 31".....	..do.....	2,262	4,727	814	2,767
38611 25	Cameras, 31" x 31" and over.....	..do.....				
38611 31	Other still cameras, including view and studio for tripod or stand but excluding photocopying, microfilming, blueprinting, brownprinting, and white printing.....	.....	(X)	23,046	(X)	6,032
	Flash units (except built-in):					
	Electronic (Stroboscopic):					
38611 42	Portable, battery operated.....	No. of heads..	49,474	2,843	257,970	2,503
38611 45	Studio type.....	No. of units..	832	416	(NA)	( <sup>3</sup> )
38611 47	Nonelectronic (using disposable flashbulb).....	..do.....	985,034	3,043	1,425,341	7,005
38611 10	Photographic exposure meters, complete (except built-ins).....	.....	(X)	1,249	(NA)	( <sup>3</sup> )
	Projectors (with illumination source rated at 150 watts or more): <sup>4</sup>					
38611 62	Slide film.....	No. of units..	452,093	22,067	520,128	18,132
38611 64	Strip film, including combination slide and strip.....	..do.....	105,706	10,245	134,766	5,962
38611 66	Other, including overhead, opaque, etc.....	..do.....				
38611 71	Still picture commercial type processing equipment, all types, including developing machines, continuous printing machines, and motor operated print washers and dryers.....	.....	(X)	33,197	(X)	17,583
38611 81	Enlargers <sup>5</sup> .....	No. of heads..	12,182	1,787	23,859	2,084
38611 98	Other still picture equipment, parts, attachments, and accessories (including projectors with illumination source rated at less than 150 watts and hand viewers but excluding lenses for sale separately and projection screens).....	.....	(X)	55,741	(X)	<sup>3</sup> 54,219
38611 00	Still picture equipment (excluding photocopying, microfilming, blueprinting, Vandyke and white printing), n.s.k.....	.....	(X)	3,179	(X)	19,734
38612 --	Photocopying, microfilming, blueprinting, brownprinting and white printing equipment.....	.....	(X)	202,873	(X)	57,668
	Photocopying equipment:					
38612 12	Contact types.....	No. of units..	262,509	158,359	(X)	29,848
38612 15	Projection types.....	..do.....	2,384	3,649	(X)	
38612 17	Microfilming equipment, including microfilm cameras, readers, printers, enlargers and other special purpose equipment for microfilm use.....	.....	(X)	17,232	(X)	7,713
38612 21	Blueprinting and brownprinting equipment.....	.....	(X)	12,112	(X)	15,829
38612 25	White printing equipment (direct process type).....	.....				
38612 00	Photocopying equipment, n.s.k.....	.....	(X)	11,521	(X)	4,278

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3861- --	PHOTOGRAPHIC EQUIPMENT AND SUPPLIES—Continued					
38613 --	Motion picture equipment.....		(X)	127,902	(X)	147,969
	8 mm and 16 mm:					
	Cameras:					
	16 mm:					
38613 06	Aperture set by built-in photoelectric device.....	No. of units..	4,891	4,314	18,842	3,648
38613 08	All other.....	...do.....				
	8 mm:					
38613 11	Aperture set by built-in photoelectric device.....	...do.....	585,426	25,067	1,094,279	45,620
38613 14	All other.....	...do.....				
	Projectors (with illumination source rate at 150 watts or more): <sup>4</sup>					
38613 22	16 mm sound.....	...do.....	42,217	16,316	36,723	12,183
38613 32	16 mm silent.....	...do.....	2,659	768	9,865	1,251
38613 42	8 mm sound.....	...do.....	546,844	27,779	684,606	36,082
38613 44	8 mm silent.....	...do.....				
38613 52	Projection screens (for motion picture and/or still projection).....	...do.....	1,402,015	13,582	(NA)	( <sup>6</sup> )
38613 61	Motion picture processing equipment, all types, including printing machines, developing machines, drying machines (excluding motion picture type equipment used for still picture work, and interchangeable types).....		(X)	8,979	(X)	1,423
38613 79	8 mm and 16 mm motion picture parts, attachments, accessories, and other 8 mm and 16 mm motion picture equipment, including sound recording (including projectors with illumination source rated at less than 150 watts and hand viewers but excluding lenses for sale separately).....		(X)	16,146	(X)	<sup>6</sup> 31,909
38613 81	35 mm and over:					
	Cameras.....	No. of units..	715	4,041	359	1,824
	Projectors:					
38613 91	Standard projector mechanisms, including unit-type projectors.....		(X)	1,116	(X)	11,185
38613 95	Sound reproducing equipment.....					
38613 97	Arc lamphouses.....					
38613 98	35 mm and over motion picture parts, attachments, accessories, and other 35 mm and over motion picture equipment, including sound recording and studio equipment, excluding lenses for sale separately.....		(X)	9,794	(X)	
38613 00	Motion picture equipment, n.s.k.....		(X)	-	(X)	2,844
38615 --	Photographic sensitized film and plates.....		(X)	604,928	(X)	396,014
	Still picture black and white film:					
	X-ray film:					
38615 41	Medical.....	TSFSM(M) <sup>7</sup> ....	284,917	93,739	218,316	78,453
38615 43	Dental.....	...do.....	4,021	6,555		
38615 45	Industrial.....	...do.....	24,984	13,162		
38615 64	Sheet film and pack film other than graphic arts film (more than 25 ft. in length and more than 30 mm in width).....	...do.....	43,366	32,949	26,986	18,866
38615 65	Graphic arts film (for lithography, rotogravure, photo-engraving and silk screen processing).....	...do.....	186,781	63,033	107,141	36,229
38615 66	Photographic glass plates and slides.....	...do.....	1,928	4,162	2,972	3,410
38615 00	Other film, including motion picture black and white and color film, amateur roll film, still color film, aerofilm, microfilm, etc. <sup>8 9</sup> .....	...do.....	620,535	391,056	514,293	258,157
38615 99	Photographic sensitized film and plates, n.s.k.....		(X)	272	(X)	899
38616 --	Sensitized photographic paper and cloth, silver halide type.....		(X)	191,306	(X)	123,963
38616 12, 16	Roll form only, designed for continuous-tone reproduction (photofinishing, portraiture, etc.) and line reproduction, recording, graphic arts, etc., other than photocopy process....		(NA)	72,650	(NA)	123,963
38616 13, 17	Sheet form only, designed for continuous-tone reproduction (photofinishing, portraiture, etc.) and line reproduction, recording, graphic arts, etc., other than photocopy process....		(NA)	32,952		
38616 18	Designed for copying processes (including diffusion transfer, dye transfer, etc.).....	TSFSM(M) <sup>7</sup> ....	1,693,786	85,704		

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3861- --	PHOTOGRAPHIC EQUIPMENT AND SUPPLIES—Continued					
38617 --	Sensitized photographic paper and cloth, other than silver halide type.....		(X)	128,090	(X)	82,121
38617 11	Blueprint type.....	TSYSM(M) <sup>10</sup> ....	83,058	5,678	(NA)	8,293
	Diazotype (including film and plastic sheet):					
38617 13	Dry.....	...do.....	572,632	45,968	413,790	40,631
38617 15	Semimoist.....	...do.....	196,655	15,641	184,439	14,381
38617 21	Brownprinting type.....	...do.....	22,839	1,223	(NA)	1,141
	Sensitized paper for photocopy processes:					
38617 31	Electrostatic.....	TSFSM(M) <sup>7</sup> ....	1,281,152	51,115	(NA)	15,129
38617 32	Heat sensitive.....	...do.....				
38617 39	Other types (including sensitized paper, film, and cloth for all other processes).....	...do.....	43,105	7,038		
38617 00	Sensitized photographic paper and cloth other than silver halide type, n.s.k.....		(X)	1,427	(X)	2,546
38618 11	Prepared photographic chemicals (developers, fixers, toners, and other chemicals specifically prepared and packaged for use in photography).....		(X)	74,294	(X)	35,854
38610 00	Photographic equipment and supplies, n.s.k.....		(X)	78,368	(X)	38,280
3871- --	WATCHES, CLOCKS, AND PARTS, EXCEPT WATCHCASES.....		(X)	406,168	(X)	291,524
38711 --	Clocks.....		(X)	173,839	(X)	111,385
	Electric clocks, complete, frequency motor (synchronous or subsynchronous, except as specified below in "Other clocks, complete"):					
38711 11	Alarm, excluding clock timers and timing mechanisms.....	No. of units..	6,039,157	19,587	4,045,454	13,653
38711 12	Household, wall, except alarm.....	...do.....	3,615,970	16,251	3,024,279	10,499
38711 13	Household, all other, except alarm and wall, including chime and strike, occasional, desk, and mantel.....	...do.....	1,014,578	5,828	3,056,634	11,459
38711 15	Commercial, including office, factory, and school.....	...do.....	770,003	6,715	323,454	2,333
	Spring wound and weight operated clocks, except automobile clocks and as specified below in "Other clocks, complete"):					
38711 21	Alarm.....	...do.....	6,870,306	21,677	7,453,900	19,889
38711 23	Household and commercial, except alarm, including chime and strike, kitchen, desk, mantel and wall.....	...do.....			(NA)	2,599
38711 27	Automobile clocks, including manual, self-winding, and electric. Timers and switch clocks having hands and dials for telling time of day (including electric and spring wound).....	...do.....	( <sup>11</sup> )	( <sup>11</sup> )	2,071,469	9,444
38711 31	Other clocks, complete (tower, street, master, magnet operated secondary clocks, chronometers, etc.).....		(X)	112,564	(X)	3,082
38711 53	Clock movements, complete but not cased for timepiece use, including clocks for clock radios, including electric and spring wound.....	No. of units..	4,838,065	10,357	1,492,288	3,530
	Timing mechanisms, not for timepiece use, including elapsed time indicators, delay timers, program timers, etc., and mechanisms for recording and controlling instruments, parking meters, driving mechanisms, metronomes and other devices but excluding time recording and time stamp machines:					
38711 61	Electric.....	...do.....	10,002,013	55,774	5,962,794	24,592
38711 75	Spring wound.....	...do.....	3,548,987	8,621	(NA)	9,812
38711 00	Clocks, n.s.k.....		(X)	1,595	(X)	493
38714 --	Watches with imported movements.....		(X)	112,793	(X)	83,710
	Jeweled-lever escapement (excluding battery powered):					
38714 12	Men's wrist:					
38714 19	17 jewels and under.....	No. of units..	2,982,709	49,771	1,821,455	39,618
	Over 17 jewels.....	...do.....	235,564	3,904		
38714 22	Women's wrist:					
38714 29	17 jewels and under.....	...do.....	2,641,441	49,572	1,644,816	34,948
	Over 17 jewels.....	...do.....	207,768	4,421		
38714 39	Other, including pocket, lapel, etc.....	...do.....				13,823

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3871- --	WATCHES, CLOCKS, AND PARTS, EXCEPT WATCHCASES—Continued					
38714 --	Watches with imported movements—Continued					
38714 62	Pin-lever escapement-all types (excluding travel and automobile clocks, etc., with watch movements).....	No. of units..	563,236	4,532	1,117,044 (NA)	7,355 (NA)
38714 65	Battery powered.....	...do.....				
38714 00	Watches with imported movements (all types), n.s.k.....	.....				
38715 --	Watches with domestic movements and parts for all clock and watches.....	.....	(X)	102,249	(X)	85,331
	Jeweled lever escapement type watches (excluding battery powered):					
	Men's wrist:					
38715 12	17 jewels and under.....	No. of units..	930,799	20,624	455,604	14,620
38715 19	Over 17 jewels.....	...do.....				
	Women's wrist:					
38715 22	17 jewels and under.....	...do.....	814,792	27,741	719,131	21,192
38715 29	Over 17 jewels.....	...do.....				
38715 39	Other, including pocket, lapel, etc.....	...do.....	-	-	22,540	1,127
	Pin-lever escapement type watches, jeweled and nonjeweled:					
	Wrist:					
38715 53	Men's.....	...do.....		45,996	5,823,919	31,612
38715 55	Women's.....	...do.....				
38715 79	Other, including pocket, lapel, etc. (excluding travel and automobile clocks, etc., with watch movements).....	...do.....	(X)		2,386,263	4,276
38715 80	Battery powered.....	.....			(NA)	(NA)
38715 81	Clock and watch parts, except watch crystals:					
38715 87	Clock case and clock parts, excluding timing motors.....	.....	(X)	6,723	(X)	6,691
38715 89	Watch movements, complete, for sale separately (excluding those purchased and resold in the same condition) <sup>12</sup> .....	.....				
38715 89	Watch parts for sale separately, except watchcases, and watch crystals, excluding interplant transfers (excluding those purchased and resold in the same condition) <sup>12</sup> .....	.....				
38715 00	Clocks and watch parts, except watch crystals, n.s.k.....	.....	(X)	1,165	(X)	2,628
38710 00	Interplant transfers of clock and watch parts and semifinished components, and watches, clocks and parts, n.s.k.....	.....	(X)	17,287	(X)	11,098
			1963		1958	
			Total shipments, including interplant transfers		Total shipments, including interplant transfers	
			Quantity	Value	Quantity	Value
			(number)	(\$1,000)	(number)	(\$1,000)
3872- --	WATCHCASES.....		(X)	29,372	(X)	27,798
38720 --	Watchcases:					
	For jeweled watch movements:					
	Men's wristwatch cases:					
38220 11	Karat gold and platinum.....	127,494	2,769,708	6,820	878,255	3,274
38720 13	Gold filled.....	254,526				
38720 15	Rolled gold plate and sterling silver, including rolled gold plate with steel back.....					
38720 19	Other metals.....				392,877	814
	Women's wristwatch cases:					
38720 21	Karat gold and platinum.....	425,393	1,007,877	1,316	1,491,528	3,787
38720 23	Gold filled.....	170,448				
38720 25	Rolled gold plate and sterling silver, including rolled gold plate with steel back.....	4,752,526				
38720 29	Other metals.....	1,007,877			60,909	197
38720 31	Pocket watch and other watchcases.....	(14)	(14)	(NA)	(14)	(14)

See footnotes at end of table.

TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	1963			1958		
		Total shipments, including interplant transfers		Produced and consumed at the same establishment	Total shipments, including interplant transfers		Produced and consumed at the same establishment
		Quantity (number)	Value (\$1,000)		Quantity (number)	Value (\$1,000)	
3872- --	WATCHCASES—Continued						
38720 --	Watchcases—Continued						
	For nonjeweled or pin-lever watch movements:						
	Wristwatch cases:						
38720 51	Gold filled, rolled gold plate, and sterling silver, including rolled gold plate with steel back.....	-	-	} (NA)	498,660	909	138,793
38720 59	Other metals.....	385,591	748				
38720 71	Pocket and other watchcases (all qualities).....	<sup>14</sup> 318,555	<sup>14</sup> 2,352	(NA)	<sup>14</sup> 67,182	<sup>14</sup> 306	1,309,825
38720 00	Watchcases, n.s.k.....	(X)	1,939	(NA)	(X)	8,016	(X)

- Represents zero. (NA) Not available. n.s.k. Not specified by kind.

(X) Not applicable.

<sup>1</sup>Values include stands and attachments shipped with process cameras.

<sup>2</sup>Product code 3861142 was collected in number of units in 1958.

<sup>3</sup>In 1958, studio type flash units; exposure meters; and projectors, other than slide film and strip film were included in product code 3861198. Also, 1958 data for code 3861198 excludes projectors with illumination source rated at less than 150 watts.

<sup>4</sup>1958 data for both still and motion picture projectors include those with illumination source rated at less than 150 watts.

<sup>5</sup>Quantity figures include heads shipped separately, as well as complete units. Value figures include the value of heads shipped separately, stands shipped separately and complete units shipped.

<sup>6</sup>In 1958, projection screens were included in product code 3861379. Also, 1958 data for code 3861379 excludes projectors with illumination source rated at less than 150 watts.

<sup>7</sup>Total square feet of sensitized material (in thousands).

<sup>8</sup>Motion picture film, amateur roll film, and other film were combined to avoid disclosing figures of individual companies. Motion picture film was reported in linear feet by width and has been converted to TSFSM. Amateur roll film and other film were collected in TSFSM. In 1963, the statistics published for product code 3861500 were collected separately as product codes 3861511, 3861512, 3861513, 3861515, 3861521, 3861522, 3861523, 3861525, 3861531, 3861532, 3861533, 3861535, 3861551, 3861552, 3861553, 3861555, 3861561, 3861562, 3861567, 3861569, 3861571, 3861575, and 3861577.

<sup>9</sup>Includes and indeterminate amount of duplication resulting from shipments of film between film producers for further manufacturing process.

<sup>10</sup>Total square yards of sensitized material (in thousands).

<sup>11</sup>Automobile clocks included with other complete clocks (product code 3871131) for 1963.

<sup>12</sup>Includes only watch parts and watch movements produced domestically; watch parts and watch movements imported by watch assemblers and resold in the same condition are excluded.

<sup>13</sup>Does not include a figure of less than 10,000 reported for gold filled women's wristwatch cases (for jeweled watch movement).

<sup>14</sup>Womens' pocket and other watchcases for jeweled watch movements combined with pocket and other watchcases for nonjeweled or pin-lever watch movements.



**TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
3861	Photographic equipment <sup>1</sup> .....1963..	179	119
	.....1958..	124	111
38611	Still picture equipment.....1963..	106	124
	.....1958..	90	117
38613	Motion picture equipment.....1963..	99	116
	.....1958..	134	102
38615	Photographic sensitized film and plates.....1963..	182	112
	.....1958..	125	106
38617	Sensitized photographic paper and cloth other than silver halide type.....1963..	305	89
	.....1958..	170	102
387	Watches, clocks, and watchcases.....1963..	126	104
	.....1958..	91	107
3871	Watches and clocks <sup>2</sup> .....1963..	130	105
	.....1958..	93	107
38711	Clocks.....1963..	123	122
	.....1958..	90	110
38714	Watches with imported movements.....1963..	147	79
	.....1958..	89	97
38715	Watches with domestic movements and parts for all clocks and watches.....1963..	106	119
	.....1958..	90	117
3872	Watchcases.....1963..	92	91
	.....1958..	72	112

<sup>1</sup>Adjusted to include products not included below (product classes 38612, 38616), also products, not specified by kind.

<sup>2</sup>Adjusted to include products not specified by kind.

**TABLE 6C. Product Classes—Value Shipped by All Manufacturing Establishments, 1947, 1954, 1958 to 1963**

(In thousand of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3861-	Photographic equipment.....	1,631,400	1,346,189	1,250,286	1,206,037	1,153,260	1,061,317	772,919	428,531
38611	Still picture equipment.....	223,639	148,700	158,952	160,012	(S)	179,448	170,687	86,718
38612	Photocopying, microfilming, blue-printing, Vandyke, and white-printing equipment.....	202,873	144,697	89,950	86,393	75,737	57,668	27,003	9,302
38613	Motion picture equipment.....	127,902	127,806	136,354	151,359	145,282	147,969	108,155	89,922
38615	Photographic sensitized film and plates.....	604,928	546,387	511,479	478,619	440,545	396,014	297,050	143,550
38616	Sensitized photographic paper and cloth, silver halide type.....	191,306	183,997	166,669	155,906	146,353	123,963	78,846	39,844
38617	Sensitized photographic paper and cloth, other than silver halide type.....	128,090	120,768	119,484	112,754	98,426	82,121	47,293	18,504
38618	Prepared photographic chemicals.....	74,294	69,809	51,249	46,421	42,987	35,854	19,755	9,096
38610	Photographic equipment and supplies, n.s.k.....	78,368	(S)	(S)	(S)	(S)	38,280	24,130	31,415
3871-	Watches and clocks.....	406,168	405,595	391,055	386,706	364,554	291,524	293,353	332,520
38711	Clocks.....	173,839	187,972	185,124	168,046	141,077	111,385	113,601	100,779
38714	Watches with imported movements.....	112,793	101,512	105,781	104,581	106,280	83,710	96,827	105,018
38715	Watches with domestic movements and parts for all clocks and watches.....	102,249	97,642	84,379	95,770	96,472	85,331	81,091	98,597
38710	Interplant transfers of clocks and watch parts and semi finished components, and watches, clocks and parts, n.s.k.....	17,287	(S)	(S)	(S)	(S)	11,098	1,834	28,126
3872-	Watchcases.....	29,372	25,640	22,661	28,056	(S)	27,798	34,457	40,385

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
<b>STILL PICTURE EQUIPMENT (38611)</b>			<b>PHOTOGRAPHIC SENSITIZED FILM AND PLATES (38615)</b>			<b>PREPARED PHOTOGRAPHIC CHEMICALS (38618)—Continued</b>		
United States, total.....	223,639	179,448	United States, total.....	604,928	396,014	North Central.....	5,418	
New England.....	10,216	8,874	Northeast.....	597,930	(2)	Illinois.....	4,789	
Middle Atlantic.....	124,690	97,334	East North Central.....	5,934	(2)	South and West.....	1,255	
New York.....	115,904	91,070	South and West.....	1,064	(2)			
North Central.....	40,606	48,773	<b>SENSITIZED PHOTOGRAPHIC PAPER AND CLOTH, SILVER HALIDE TYPE (38616)</b>			<b>CLOCKS (38711)</b>	1963 <sup>1</sup>	1958
Illinois.....	21,278	19,966	United States, total.....	191,306	123,963	United States, total.....	173,839	111,385
Wisconsin.....	2,679	(2)	Middle Atlantic.....	166,092	(2)	New England.....	59,425	(2)
South.....	19,230	(2)	All other divisions.....	25,214	(2)	Massachusetts.....	33,749	(2)
West.....	28,897	(2)				Middle Atlantic.....	12,828	(2)
<b>PHOTOCOPYING, MICROFILMING, BLUEPRINTING, VANDYKE, BROWNPRINTING, AND WHITE-PRINTING EQUIPMENT (38612)</b>			<b>SENSITIZED PHOTOGRAPHIC PAPER AND CLOTH, OTHER THAN SILVER HALIDE TYPE (38617)</b>			New York.....	6,892	6,505
United States, total.....	202,873	57,668	United States, total.....	128,090	82,121	North Central.....	75,993	(2)
New England.....	2,994	(2)	Northeast.....	42,801	42,040	Indiana.....	4,570	(2)
Middle Atlantic.....	152,114	(2)	New York.....	15,358	19,855	Illinois.....	52,878	36,947
North Central.....	45,582	(2)	New Jersey.....	11,580	(2)	Michigan.....	1,831	1,668
West.....	2,183	(2)	North Central.....	69,986	(2)	South and West.....	25,593	(2)
<b>MOTION PICTURE EQUIPMENT (38613)</b>			Michigan.....	3,517	(2)	<b>WATCHES WITH IMPORTED MOVEMENTS (38714)</b>		
United States, total.....	127,902	147,969	West South Central.....	2,315	(2)	United States, total.....	112,793	83,710
Northeast.....	45,335	60,073	Pacific.....	12,988	(2)	Northeast.....	89,718	(2)
New York.....	31,327	39,323	California.....	12,988	9,297	East North Central.....	19,676	(2)
North Central.....	61,770	(2)	<b>PREPARED PHOTOGRAPHIC CHEMICALS (38618)</b>	1963 <sup>1</sup>		Illinois.....	19,676	14,313
Illinois.....	53,107	65,056	United States, total.....	74,294		South and West.....	3,399	(2)
South and West.....	20,797	(2)	Northeast.....	67,621		<b>WATCHES WITH DOMESTIC MOVEMENTS AND PARTS FOR ALL CLOCKS AND WATCHES (38715)</b>		
			New York.....	59,484		United States, total.....	102,249	
			New Jersey.....	7,534		Middle Atlantic.....	38,798	
						All other divisions.....	63,451	

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 38611, Massachusetts, Connecticut, New Jersey, Ohio, Michigan, Minnesota, Virginia, South Carolina, Arkansas, Colorado, Oregon, and California; 38612, Massachusetts, New York, Indiana, Illinois, California; 38613, Massachusetts, Connecticut, New York, Pennsylvania, Ohio, Indiana, Michigan, Minnesota, South Carolina, Colorado, and California; 38615, Massachusetts, New York, New Jersey, Ohio, and Illinois; 38616, New Hampshire, Massachusetts, New York, New Jersey, Illinois, Iowa, and Missouri; 38617, Massachusetts, Rhode Island, Pennsylvania, Ohio, Indiana, Illinois, and Texas; 38618, California; 38711, Connecticut, New Jersey, Ohio, Wisconsin, Iowa, North Carolina, Georgia, Kentucky, and Tennessee; 38714, Connecticut, New York, Pennsylvania, and Texas; 38715, Connecticut, New York, New Jersey, Pennsylvania, Illinois, North Carolina, Arkansas, and Texas.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.



TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3861.—PHOTOGRAPHIC EQUIPMENT			
	Materials, components, parts, containers, and supplies, total..		(X)	482,707	(X)	337,895
	Mill shapes and forms:					
331001	Carbon steel.....	Short tons.....	25,267	7,386	}	(NA) 19,000
331020	Alloy steel, except stainless.....	...do.....	2,967	4,052		
331031	Stainless steel.....	...do.....				
335003	Copper and copper-base alloy.....	1,000 lbs.....	940	463	(NA)	(NA)
333401	Aluminum and aluminum-base alloy refinery shape.....		(D)	(D)	(NA)	(NA)
336100	Aluminum and aluminum-base alloy castings <sup>2</sup> .....	1,000 lbs.....	12,508	8,087	(NA)	(NA)
	Fractional horsepower electric motors (under 1 hp.):					
362110	Timing motors, synchronous and subsynchronous.....	1,000.....	570	3,630	9	139
362115	Other fractional horsepower motors, excluding timing motors.....	...do.....	352	1,811	1,306	3,193
367010	Electron tubes, except x-ray.....	...do.....	226	406	(NA)	(NA)
367408	Solid state semi-conductors.....	...do.....	396	445	(NA)	(NA)
281997	Silver nitrate.....	1,000 ounces.....	28,088	20,253	19,372	10,665
383101	Photographic and projection lens and prisms.....		(X)	8,602	(X)	6,369
970099	All other materials, components, parts, containers, and supplies consumed.....		(X)	373,579	(X)	286,040
976000	Materials, parts, containers, and supplies, n.s.k. <sup>3</sup> .....		(X)	53,993	(X)	22,489
			INDUSTRY 3871.—WATCHES AND CLOCKS			
	Materials, parts, containers, and supplies, total.....		(X)	207,170	(X)	145,342
	Fractional horsepower electric motors:					
362110	Timing motors, synchronous and subsynchronous <sup>2</sup> .....	Thousands.....	1,061	2,231	1,259	2,026
362115	Other fractional horsepower electric motors (excluding timing motors) <sup>2</sup> .....		(D)	(D)	(NA)	(NA)
	Watchcases:					
	Mens' wristwatch cases:					
387200	Karat gold and platinum.....	Number.....	149,343	2,884	}	(NA) 17,000
387201	Gold filled.....	...do.....	446,280	2,286		
387202	Rolled gold plate and sterling silver (including rolled gold plate with steel back).....	...do.....	1,005,285	2,521		
387203	Other metals.....	...do.....	2,818,639	4,828		
	Women's wristwatch cases:					
387204	Karat gold and platinum.....	...do.....	235,449	4,076	}	(NA)
387206	Gold filled.....	...do.....	359,321	1,196		
387207	Rolled gold plate and sterling silver (including rolled gold plate with steel back).....	...do.....	2,525,177	5,457		
387208	Other metals.....	...do.....	2,712,815	2,643	}	(NA)
387209	Pocket and other watchcases (all qualities).....	...do.....	1,153,137	489		
387209	Imported watch movements.....		(X)	46,196	(NA)	(X)
970099	All other materials, components, parts, containers, and supplies consumed.....		(X)	103,253	(X)	117,726
976000	Materials, parts, containers, and supplies, n.s.k. <sup>3</sup> .....		(X)	29,110	(X)	8,590

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

<sup>1</sup>Represents estimates published in MC58(1)-7 (Supplement), "Selected Materials Consumed," from data collected in a supplemental survey on Form MA-131, "Consumption of Materials, Parts, Containers, and Supplies During 1958." This survey was limited to large establishments in selected chemical, machinery, and equipment industries and resulted in estimates which are subject to greater error than are the figures on materials consumption collected as a regular part of the Census of Manufactures.

<sup>2</sup>Does not include quantities produced and consumed in the same establishment.

<sup>3</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials and "standard forms."

TABLE 7B. Fuels and Electric Energy Consumed, and Horsepower Rating of Power Equipment: 1962

Item	1962		
	Photographic equipment (SIC 3861)	Watches and clocks (SIC 3871)	Watchcases (SIC 3872)
Total cost of purchased fuels and electric energy.....\$1,000..	12,497	2,077	246
Total cost of purchased fuels.....do....	7,830	687	79
Bituminous coal, lignite, and anthracite:			
Quantity.....1,000 short tons..	501	(S)	(S)
Cost.....\$1,000..	4,397	(S)	(S)
Coke and breeze:			
Quantity.....1,000 short tons..	(S)	-	-
Cost.....\$1,000..	(S)	-	-
Fuel oil (distillate and residual):			
Quantity.....1,000 barrels of 42 gallons..	322	(S)	(S)
Cost.....\$1,000..	1,081	(S)	(S)
Gas (natural, manufactured, still, blast furnace, and coke oven):			
Quantity.....million cu.ft..	2,023	(S)	(S)
Cost.....\$1,000..	1,261	(S)	(S)
Other fuels.....do....	1,090	111	(S)
Electric energy:			
Purchased:			
Quantity.....million kw. hrs..	340	84	8
Cost.....\$1,000..	4,667	1,390	167
Generated less sold.....million kw. hrs..	410	(S)	-
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	318	41	5
Prime movers, total.....do....	169	6	1
Driving generators.....do....	112	6	(Z)
Not driving generators.....do....	57	(Z)	1
Electric motors, total.....do....	296	35	3
Driven by purchased energy.....do....	149	34	3
Driven by energy generated at establishment.....do....	147	1	-
Aggregate horsepower per 100 production workers.....	894	227	249

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3861-	PHOTOGRAPHIC EQUIPMENT										
	Entire industry.....	538	64,937	498,828	39,248	77,753	251,566	1,270,132	580,544	1,851,213	78,626
	Establishments with—										
	90% or more specialization..	486	47,694	364,727	29,808	59,107	191,289	1,059,057	449,931	1,511,349	65,518
	75-89% specialization.....	15	11,142	95,397	6,343	12,975	46,109	145,011	70,975	216,780	7,472
38611	Still picture equipment (primary product class of estab.).....	82	17,863	139,854	10,489	20,575	65,517	227,134	128,245	350,747	11,920
	Establishments with—										
	90% or more specialization....	52	3,784	24,574	2,580	5,060	13,137	45,014	27,833	70,362	1,645
	75-89% specialization.....	9	1,387	12,241	956	2,474	7,484	12,195	10,987	22,242	847
38612	Photocopying, microfilming, blue-printing, Vandyke, and white-printing equipment (primary product class of estab.).....	23	2,763	19,567	1,680	3,516	10,195	119,510	48,297	165,032	3,231
	Establishments with—										
	90% or more specialization....	14	1,848	13,935	1,318	2,827	8,494	108,106	35,507	140,416	3,068
38613	Motion picture equipment (primary product class of estab.).....	48	7,592	50,243	5,117	9,726	26,659	69,356	57,251	132,545	1,810
	Establishments with—										
	90% or more specialization....	34	5,732	39,018	3,766	6,911	19,526	54,235	40,757	98,059	1,139
38615	Photographic sensitized film and plates (primary product class of estab.).....	25	26,497	230,009	15,559	30,941	116,850	626,428	203,719	833,382	49,370
38616	Sensitized photographic paper and cloth, silver halide type (primary product class of estab.)....	10	2,129	12,819	1,563	3,047	8,319	63,469	31,123	94,238	2,503
38617	Sensitized photographic paper and cloth other than silver halide type (primary product class estab.).....	42	4,693	26,524	2,823	5,771	14,125	104,610	80,181	184,482	4,391
	Establishments with—										
	90% or more specialization....	31	1,782	10,473	1,214	2,535	6,269	29,190	35,508	64,879	1,364
38618	Prepared photographic chemicals (primary product class of estab.)	22	691	4,883	375	791	2,072	31,012	10,883	42,052	(D)
3871-	WATCHES AND CLOCKS										
	Entire industry.....	167	27,047	144,179	20,983	41,171	92,404	288,053	230,348	511,168	8,730
	Establishments with—										
	90% or more specialization..	132	9,254	49,893	6,740	13,214	29,152	95,798	92,659	187,135	3,906
	75-89% specialization.....	13	9,032	51,375	7,346	14,493	34,225	89,795	76,660	161,806	2,506
38711	Clocks (primary product class of estab.).....	63	13,810	69,844	10,825	21,454	46,881	145,640	84,199	225,535	5,378
	Establishments with—										
	90% or more specialization....	42	4,234	21,257	3,162	6,286	13,092	42,025	31,372	71,173	1,725
	75-89% specialization.....	8	1,300	6,344	1,059	2,067	4,142	10,913	8,186	19,386	264
38714	Watches with imported movements (primary product class of estab.)	19	3,975	27,743	2,681	5,326	13,632	54,489	81,063	133,967	1,491
	Establishments with—										
	90% or more specialization....	13	1,173	8,869	624	1,312	3,178	18,886	32,063	50,685	(D)
38715	Watches with domestic movements and parts for all clocks and watches (primary product class of estab.).....	19	6,939	34,777	5,705	10,975	24,463	60,498	44,820	103,657	1,079
	Establishments with—										
	90% or more specialization....	12	882	4,598	637	1,276	2,989	6,831	3,723	10,818	334

(D) Withheld to avoid disclosing figures for individual companies.

TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRY 3871.—WATCHES AND CLOCKS							
Electroplating and other plating.....	24	9	9	6	312	17	88	207
Heat treating of metals.....	15	10	4	1	135	18	(D)	(D)
Automatic screw machine department.....	19	5	6	8	577	10	69	498
Machine Shop.....	25	9	8	8	537	13	67	457
Tool and die shop.....	30	10	14	6	420	15	144	261
Stamping, blanking, and forming of metals.....	34	13	10	11	868	20	99	749
	INDUSTRY 3872.—WATCHCASES							
Electroplating and other plating.....	16	12	3	1	82	19	(D)	(D)
Heat treating of metals.....	10	9	1	-	19	(D)	(D)	-
Automatic screw machine department.....	3	1	1	1	(D)	(D)	(D)	(D)
Machine shop.....	8	4	-	4	143	9	-	134
Tool and die shop.....	12	6	4	2	119	10	(D)	(D)
Stamping, blanking, and forming of metals.....	18	5	10	3	212	6	82	124

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below.

Item	Watches and clocks (SIC 3871)	Watchcases (SIC 3872)
Total number of establishments in the industry.....	167	53
Number of establishments which reported one or more of the specified operations.....	45	21
Percent of industry production workers in these establishments.....	80-85	75-80
Number of establishments which reported "none" of the operations apply.....	20	3
Percent of industry production workers in these establishments.....	0-5	0-5
Percent of industry production workers in establishments which completed metalworking operations inquiry.....	85-90	75-80

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies.

<sup>1</sup>These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishments.





## Miscellaneous Manufacturing

- 39A Jewelry, silverware, and plated ware
- 39B Musical instruments and parts; toys, and sporting and athletic goods
- 39C Office supplies, costume jewelry and misc. notions
- 39D Miscellaneous manufacturing industries

Major Group 39 covers establishments primarily engaged in manufacturing products not classified in any other major manufacturing group. Industries in this group fall into the following categories: Jewelry, and silverware and plated ware; musical instruments; toys, and sporting and athletic goods; pens, pencils, and other office and artists' materials; buttons, costume novelties, and miscellaneous notions; brooms and brushes; morticians' goods; and, other miscellaneous manufacturing industries.

For 1953 and earlier years, data for Major Group 19, Ordnance and Accessories, are included with Major Group 39 in table 1.

For 1954 and subsequent years Major Group 19 data are published separately. However, in some tables within these volumes, data for Major Group 19 are given both separately and combined with Major Group 39.

Major Group 19 covers establishments primarily engaged in manufacturing artillery, small arms, and related equipment; ammunition; tanks and specialized tank parts; sighting and fire control equipment; complete guided missiles and research and development on complete guided missiles and, miscellaneous ordnance and accessories, not elsewhere classified.



## MISCELLANEOUS MANUFACTURING: MAJOR GROUP 39

Value Added by Manufacture by State: 1963

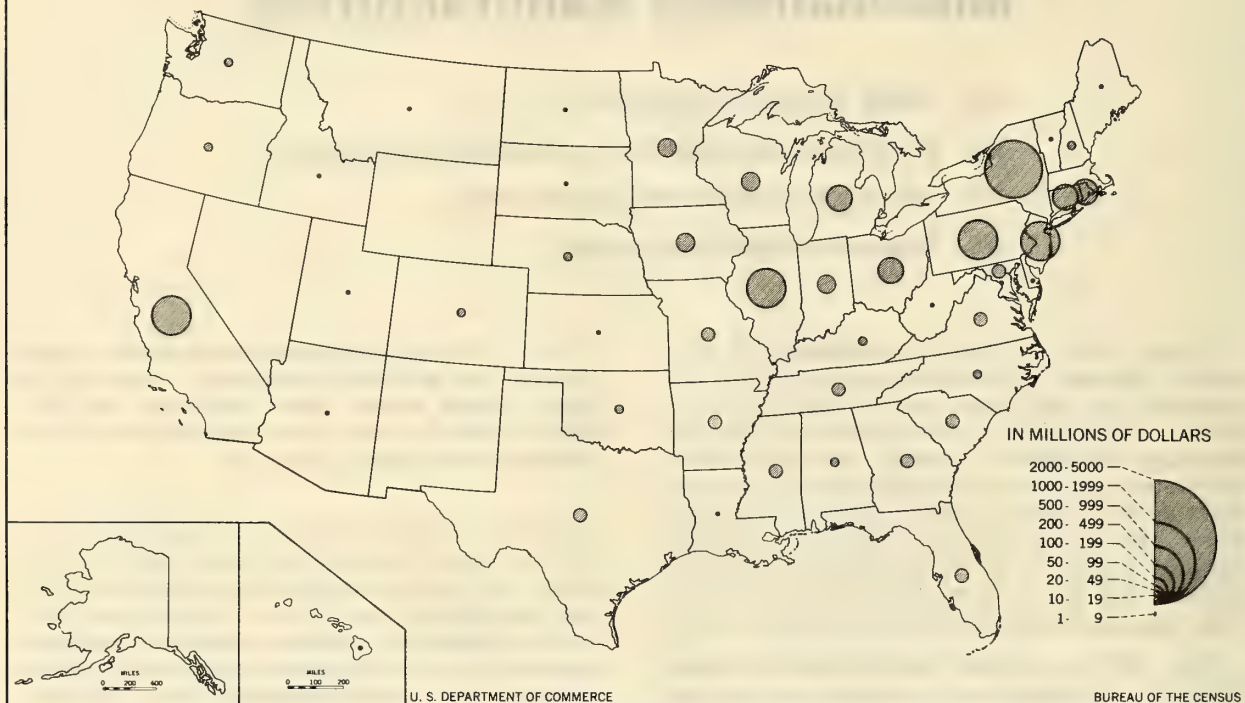


TABLE 1. General Statistics: 1963 and Earlier Years

Year and item	Establishments		All employees <sup>1</sup>		Production workers			Value added by manufacture, adjusted <sup>4</sup>	Cost of materials <sup>3</sup>	Value of shipments <sup>3</sup>	Capital expenditures, new <sup>4</sup>
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
ALL MANUFACTURING ESTABLISHMENTS, TOTAL:											
1963 <sup>6</sup> . . . . .	14 800	3 662	397 638	1 869 648	315 017	613 227	1 253 518	3 562 361	2 965 024	6 494 830	131 033
1958 <sup>6</sup> . . . . .	13 854	3 368	370 920	1 515 697	291 225	558 457	1 033 621	2 678 314	(NA)	4 965 475	110 692
1954 <sup>6</sup> . . . . .	(NA)	(NA)	472 445	1 663 953	385 420	748 078	1 148 704	2 745 976	(NA)	(NA)	114 963
ADMINISTRATIVE AND AUXILIARY UNITS:											
1963 <sup>5</sup> . . . . .	77	44	6 878	57 544	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1958 <sup>5</sup> . . . . .	57	32	6 307	48 318	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1954 <sup>5</sup> . . . . .	(NA)	(NA)	85 719	88 552	(X)	(X)	(X)	(X)	(X)	(X)	(X)
OPERATING MANUFACTURING ESTABLISHMENTS:											
1963 <sup>6</sup> . . . . .	14 723	3 618	390 760	1 812 104	315 017	613 227	1 253 518	3 562 361	2 965 024	6 494 830	131 033
1958 <sup>6</sup> . . . . .	13 797	3 336	364 613	1 467 379	291 225	558 457	1 033 621	2 678 314	(NA)	4 965 475	110 692
1954 <sup>6</sup> . . . . .	16 517	4 289	466 726	1 625 401	385 420	748 078	1 148 704	2 745 976	(X)	(X)	114 963
OPERATING MANUFACTURING ESTABLISHMENTS:											
1962 <sup>6</sup> . . . . .	(NA)	(NA)	378 404	1 704 937	304 551	596 740	1 163 243	3 329 542	2 845 395	6 109 739	129 818
1961 <sup>6</sup> . . . . .	(NA)	(NA)	374 766	1 608 335	302 515	585 364	1 096 764	3 082 421	2 736 258	5 832 740	112 481
1960 <sup>6</sup> . . . . .	(NA)	(NA)	373 523	1 655 073	300 698	587 713	1 090 858	3 002 545	(NA)	(NA)	111 088
1959 <sup>6</sup> . . . . .	(NA)	(NA)	376 309	1 555 999	305 041	590 706	1 083 946	2 887 876	(NA)	(NA)	124 324
1957 <sup>7</sup> . . . . .	(NA)	(NA)	495 157	1 885 511	403 379	776 315	1 313 261	3 327 131	(NA)	(NA)	121 779
1956 <sup>7</sup> . . . . .	(NA)	(NA)	505 879	1 860 809	416 651	813 933	1 323 779	3 304 841	(NA)	(NA)	158 077
1955 <sup>7</sup> . . . . .	(NA)	(NA)	489 262	1 734 175	403 870	783 468	1 224 849	3 041 564	(NA)	(NA)	116 462
1953 <sup>7</sup> . . . . .	(NA)	(NA)	843 544	3 232 056	686 051	1 367 817	2 366 408	5 271 811	(NA)	(NA)	205 876
1952 <sup>7</sup> . . . . .	(NA)	(NA)	681 858	2 374 738	563 959	1 102 107	1 731 207	3 984 218	(NA)	(NA)	(NA)
1951 <sup>7</sup> . . . . .	15 057	(NA)	519 105	1 711 249	431 761	862 426	1 233 298	2 842 259	(NA)	(NA)	116 325
1950 <sup>7</sup> . . . . .	13 764	(NA)	488 324	1 452 037	403 996	799 458	1 054 672	2 534 332	(NA)	(NA)	98 275
1949 <sup>7</sup> . . . . .	(NA)	(NA)	447 260	1 262 735	370 167	727 492	917 012	2 108 682	(NA)	(NA)	77 047
1947 <sup>9</sup> . . . . .	14 148	(NA)	463 390	1 205 212	396 002	811 288	917 572	2 066 259	(NA)	(NA)	106 960

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The figures for 1939 through 1963 include data for employees of manufacturing establishments who were engaged in distribution and construction work. The extent to which data for such employees are included in the figures for earlier years is not known.

<sup>2</sup>For the period 1954 to 1963, figures represent adjusted value added by manufacture and for earlier years, unadjusted value added. Adjusted value added is equal to value of shipments (including resales of finished products) less cost of finished products, materials, supplies, fuel, electric energy and contract work, plus the net change in the value of finished products and work-in-process inventories between the beginning and end of the year, without adjustment for price changes. Unadjusted value added is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year.

<sup>3</sup>The total value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry classification. For more information, see Introduction.

<sup>4</sup>The figures for 1958 to 1963 include expenditures for plants under construction and not yet in operation.

<sup>5</sup>In addition to data for operating establishments, figures for employment and payroll

for manufacturing centraladministrative office and auxiliary units are included in industry group 39 for groups 39 and 19 for the years 1949 to 1953 in the annual survey of manufactures volumes. Data for these units are not available for the years 1955 to 1957, 1959 to 1962, and prior to 1949.

<sup>6</sup>Figures for 1958 to 1963 for operating manufacturing establishments are not strictly comparable with prior years due to revisions of the Standard Industrial Classification System. Prior to 1958, establishments primarily engaged in the manufacture of plastics products, n.e.c., cork products, soda-fountain and bar equipment, and jewelry, instrument and musical instrument cases, were included in these data. Establishments primarily engaged in the manufacture of linoleum and other hard surface floor covering, n.e.c., are excluded in data prior to 1958.

<sup>7</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

<sup>8</sup>In 1954, data for administrative and auxiliary establishments for Major Group 19, "Ordnance and Accessories," are included with Major Group 39, "Miscellaneous Manufactures."

<sup>9</sup>For 1953 and earlier years data includes ordnance and accessories.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Code	Industry group and geographic area	1963								1958			
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted	
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages					
									(number)	(number)	(number)	(\$1,000)	(number)
39	MISCELLANEOUS MANUFACTURING, TOTAL . . . . .	14 723	3 618	390 760	1 812 104	315 017	613 227	1 253 518	3 562 361	131 033	364 613	2 678 314	39
	NORTHEAST . . . . .	7 424	1 977	214 092	970 743	175 087	339 333	684 598	1 897 090	66 850	210 888	1 494 539	39
	NEW ENGLAND . . . . .	1 623	521	67 079	308 719	54 365	106 020	214 102	620 500	17 456	68 397	463 966	39
	MAINE . . . . .	47	11	1 055	3 821	927	1 925	3 013	6 867	251	1 262	7 111	39
	NEW HAMPSHIRE . . . . .	51	13	1 801	6 710	1 573	3 127	5 672	12 247	757	2 163	12 545	39
	VERMONT . . . . .	25	8	487	1 607	394	713	1 210	3 721	842	(D)	(D)	39
	MASSACHUSETTS . . . . .	542	189	26 340	125 014	20 663	40 463	81 363	255 114	6 832	25 461	172 935	39
	RHODE ISLAND . . . . .	697	194	21 239	84 042	17 676	33 627	59 102	152 303	3 519	(D)	(D)	39
	CONNECTICUT . . . . .	261	106	16 157	87 525	13 132	26 165	63 742	190 248	5 255	(D)	(D)	39
	MIDDLE ATLANTIC . . . . .	5 801	1 456	147 013	662 024	120 722	233 313	470 496	1 276 590	49 394	142 491	1 030 573	39
	NEW YORK . . . . .	4 355	1 000	91 307	405 411	75 204	144 640	286 857	771 796	26 159	90 887	644 462	39
	NEW JERSEY . . . . .	750	258	28 998	131 965	23 566	46 163	91 406	239 831	12 238	(D)	(D)	39
	PENNSYLVANIA . . . . .	696	198	26 708	124 648	21 952	42 510	92 233	264 963	10 997	(D)	(D)	39
	NORTH CENTRAL . . . . .	3 179	919	101 132	505 961	79 000	155 768	338 131	979 773	35 209	95 366	762 993	39
	EAST NORTH CENTRAL . . . . .	2 391	712	80 105	415 879	62 338	123 844	277 066	806 778	28 432	77 117	633 213	39
	OHIO . . . . .	532	160	19 574	98 021	15 081	29 527	65 281	170 956	6 743	(D)	(D)	39
	INDIANA . . . . .	256	69	8 377	47 055	6 414	13 003	31 263	91 201	3 212	(D)	(D)	39
	ILLINOIS . . . . .	880	300	31 998	165 963	25 186	50 477	110 624	310 714	11 439	29 882	253 970	39
	MICHIGAN . . . . .	444	106	11 670	63 948	8 975	17 972	43 094	146 299	4 057	(D)	(D)	39
	WISCONSIN . . . . .	279	77	8 486	40 892	6 682	12 865	26 804	87 608	2 981	(D)	(D)	39
	WEST NORTH CENTRAL . . . . .	788	207	21 027	90 082	16 662	31 924	61 065	172 995	6 777	18 249	129 780	39
	MINNESOTA . . . . .	203	63	6 015	26 995	4 758	9 122	18 485	50 750	2 955	(D)	(D)	39
	IOWA . . . . .	151	39	5 428	24 576	4 211	8 029	15 534	51 310	1 364	(D)	(D)	39
	MISSOURI . . . . .	253	80	6 865	27 483	5 485	10 396	19 218	47 639	1 301	(D)	(D)	39
	NORTH DAKOTA . . . . .	10	3	227	924	180	349	648	1 438	157	227	1 307	39
	SOUTH DAKOTA . . . . .	21	1	164	604	127	252	412	1 083	33	(D)	(D)	39
	NEBRASKA . . . . .	66	11	1 570	6 005	1 307	2 572	4 341	14 092	685	(D)	(D)	39
	KANSAS . . . . .	84	10	758	3 495	594	1 204	2 427	6 683	282	(D)	(D)	39
	SOUTH . . . . .	2 046	389	43 598	171 560	36 429	70 917	123 593	349 744	13 526	34 023	221 867	39
	SOUTH ATLANTIC . . . . .	990	189	21 482	87 284	17 841	34 590	61 911	176 913	7 366	(D)	(D)	39
	DELAWARE . . . . .	20	2	234	603	203	311	410	741	23	(D)	(D)	39
	MARYLAND . . . . .	123	33	3 122	14 716	2 510	4 865	10 028	24 745	1 352	(D)	(D)	39
	DISTRICT OF COLUMBIA . . . . .	23	4	240	1 418	173	338	988	1 959	82	186	1 307	39
	VIRGINIA . . . . .	93	23	3 448	15 173	2 766	5 331	10 502	32 306	854	(D)	(D)	39
	WEST VIRGINIA . . . . .	35	5	825	3 393	749	1 486	2 902	6 097	144	(D)	(D)	39
	NORTH CAROLINA . . . . .	140	29	2 714	9 394	2 310	4 608	6 927	18 310	1 053	(D)	(D)	39
	SOUTH CAROLINA . . . . .	56	19	3 178	12 275	2 724	5 418	8 756	29 716	998	820	4 837	39
	GEORGIA . . . . .	141	32	4 615	18 117	3 863	7 307	12 465	40 562	1 487	(D)	(D)	39
	FLORIDA . . . . .	359	42	3 106	12 195	2 543	4 926	8 933	22 477	1 373	(D)	(D)	39
	EAST SOUTH CENTRAL . . . . .	382	101	11 616	43 716	9 907	19 415	32 403	90 063	3 649	(D)	(D)	39
	KENTUCKY . . . . .	87	16	1 756	8 250	1 443	2 929	5 913	15 378	865	(D)	(D)	39
	TENNESSEE . . . . .	172	56	5 821	20 988	4 920	9 309	15 389	39 799	1 826	(D)	(D)	39
	ALABAMA . . . . .	84	20	1 596	5 971	1 356	2 676	4 247	10 021	325	(D)	(D)	39
	MISSISSIPPI . . . . .	39	9	2 443	8 507	2 188	4 501	6 854	24 865	633	982	5 040	39
	WEST SOUTH CENTRAL . . . . .	674	99	10 500	40 560	8 681	16 912	29 279	82 768	2 511	(D)	(D)	39
	ARKANSAS . . . . .	66	17	3 025	11 346	2 590	5 336	8 532	23 646	575	1 810	12 023	39
	LOUISIANA . . . . .	81	9	1 047	3 782	850	1 607	2 732	6 429	176	(D)	(D)	39
	OKLAHOMA . . . . .	102	8	1 092	4 427	884	1 720	3 319	12 515	294	892	6 025	39
	TEXAS . . . . .	425	65	5 336	21 005	4 357	8 249	14 696	40 178	1 466	(D)	(D)	39
	WEST . . . . .	2 076	334	31 986	164 019	24 559	47 202	107 261	335 025	15 384	24 183	198 122	39
	MOUNTAIN . . . . .	347	50	3 732	17 815	2 852	5 639	11 610	29 591	1 835	3 428	21 315	39
	MONTANA . . . . .	29	-	165	876	121	217	593	1 964	28	(D)	(D)	39
	IDAHO . . . . .	26	2	253	959	209	398	687	1 720	77	(D)	(D)	39
	WYOMING . . . . .	6	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	417	2 229	39
	COLORADO . . . . .	120	22	1 586	7 718	1 187	2 406	4 519	12 497	407	(D)	(D)	39
	NEW MEXICO . . . . .	32	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	39
	ARIZONA . . . . .	66	8	471	2 171	355	669	1 582	3 577	141	(D)	(D)	39
	UTAH . . . . .	47	11	650	3 112	522	1 062	2 267	4 864	1 009	(D)	(D)	39
	NEVADA . . . . .	21	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	39
	PACIFIC . . . . .	1 729	284	28 254	146 204	21 707	41 563	95 651	305 434	13 549	20 755	176 807	39
	WASHINGTON . . . . .	192	24	1 796	9 268	1 433	2 632	6 642	14 896	575	(D)	(D)	39
	OREGON . . . . .	126	22	1 493	6 927	1 176	2 114	4 673	11 488	653	(D)	(D)	39
	CALIFORNIA . . . . .	1 365	236	24 650	129 133	18 835	36 336	83 706	277 554	12 264	17 761	155 050	39
	ALASKA . . . . .	9	-	19	92	14	28	71	233	12	24	176	39
	HAWAII . . . . .	37	2	296	784	249	453	559	1 263	45	162	854	39
391	JEWELRY AND SILVERWARE, TOTAL . . . . .	2 193	387	43 151	225 659	33 506	67 690	154 112	415 747	8 115	41 179	317 699	391
	NORTHEAST . . . . .	1 736	321	36 333	190 332	28 511	57 559	130 472	343 545	6 885	34 727	265 698	391
	NEW ENGLAND . . . . .	438	150	19 254	96 402	15 517	31 560	67 134	170 467	4 015	18 391	131 557	391
	MASSACHUSETTS . . . . .	112	46	7 143	38 014	5 353	10 959	22 237	61 639	1 936	6 514	44 026	391
	RHODE ISLAND . . . . .	292	89	8 467	36 724	6 898	13 832	25 694	71 953	1 543	7 841	52 350	391

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963								1958		
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expenditures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
		(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(number)	(\$1,000)
391	JEWELRY AND SILVERWARE—CONTINUED											
	MIDDLE ATLANTIC . . . . .	1 298	171	17 079	93 930	12 994	25 999	63 338	173 078	2 870	16 336	134 141
	NEW YORK . . . . .	1 096	122	12 903	71 531	9 843	19 587	48 619	137 034	2 164	11 812	100 953
	NEW JERSEY . . . . .	124	41	3 637	19 825	2 754	5 629	12 949	31 062	505	4 015	29 136
	PENNSYLVANIA . . . . .	78	8	539	2 574	397	783	1 770	4 982	201	509	4 052
	NORTH CENTRAL AND SOUTH . . . . .	262	48	5 405	28 528	3 917	7 671	18 817	56 593	945	4 019	32 816
	OHIO . . . . .	46	6	417	2 181	329	632	1 612	4 893	68	567	5 084
	INDIANA . . . . .	20	4	949	5 620	713	1 510	3 922	12 519	220	793	7 937
	ILLINOIS . . . . .	54	12	1 167	6 098	847	1 710	3 879	12 174	255	1 024	7 913
	MISSOURI . . . . .	10	3	123	590	82	174	409	1 032	20	103	817
	MARYLAND . . . . .	8	5	269	1 347	203	401	872	1 877	(D)	273	(D)
	OKLAHOMA . . . . .	6	2	113	566	84	176	389	1 070	10	(D)	(D)
	TEXAS . . . . .	18	1	300	1 434	210	445	904	2 775	28	461	2 884
	WEST . . . . .	198	20	1 789	8 783	1 420	2 813	6 550	18 998	332	1 559	12 538
	MOUNTAIN . . . . .	33	6	527	1 926	411	819	1 382	3 113	64	482	2 126
	NEW MEXICO . . . . .	7	2	202	771	132	259	378	1 391	19	242	1 039
	PACIFIC . . . . .	165	14	1 262	6 857	1 009	1 994	5 168	15 885	268	1 077	10 412
	OREGON . . . . .	9	1	110	622	89	176	431	1 120	(D)	(D)	(D)
	CALIFORNIA . . . . .	134	12	1 021	5 604	803	1 585	4 175	13 661	209	932	9 254
393	MUSICAL INSTRUMENTS AND PARTS, TOTAL	320	126	20 095	103 029	16 664	33 600	76 471	179 035	5 779	16 103	120 935
394	TOYS AND SPORTING GOODS, TOTAL . . .	2 690	887	113 133	460 948	94 275	179 084	324 575	978 485	51 151	98 704	711 798
	NORTHEAST . . . . .	1 139	460	56 534	217 941	48 118	90 629	156 806	448 457	25 367	53 487	362 146
	NEW ENGLAND . . . . .	216	87	13 443	54 247	10 800	20 004	37 455	122 935	4 607	12 807	78 470
	NEW HAMPSHIRE . . . . .	18	6	1 003	3 315	870	1 719	2 841	6 413	(D)	1 200	6 835
	MASSACHUSETTS . . . . .	101	47	7 530	30 901	5 968	10 966	20 833	79 511	2 033	6 950	44 215
	RHODE ISLAND . . . . .	19	7	1 884	6 579	1 570	2 736	4 716	14 384	482	1 266	8 272
	CONNECTICUT . . . . .	53	20	2 457	11 479	1 915	3 639	7 576	18 980	1 382	2 585	15 443
	MIDDLE ATLANTIC . . . . .	923	373	43 091	163 694	37 318	70 625	119 351	325 522	20 760	40 680	283 676
	NEW YORK . . . . .	660	252	25 399	94 063	21 912	41 327	67 912	198 275	11 123	27 223	197 794
	NEW JERSEY . . . . .	128	63	9 690	39 532	8 333	16 196	28 080	73 614	6 440	6 635	43 738
	PENNSYLVANIA . . . . .	135	58	8 002	30 099	7 073	13 102	23 359	53 633	3 197	6 822	42 144
	NORTH CENTRAL . . . . .	721	253	31 159	137 872	25 382	48 908	96 762	294 905	13 813	28 290	227 016
	EAST NORTH CENTRAL . . . . .	528	187	24 554	112 537	19 854	38 301	78 063	246 540	10 449	22 917	194 603
	OHIO . . . . .	97	33	6 928	32 539	5 480	10 661	22 077	57 656	3 066	6 782	46 621
	INDIANA . . . . .	42	11	1 212	5 332	992	1 850	3 701	8 933	275	2 162	15 096
	ILLINOIS . . . . .	176	72	8 197	37 941	6 795	13 013	27 430	76 885	4 161	6 796	66 996
	MICHIGAN . . . . .	129	41	5 422	26 885	4 147	8 334	17 498	84 182	2 131	5 117	53 556
	WISCONSIN . . . . .	84	30	2 795	9 840	2 440	4 443	7 357	18 884	816	2 060	12 334
	WEST NORTH CENTRAL . . . . .	193	66	6 605	25 335	5 528	10 607	18 699	48 365	3 364	5 373	32 413
	MINNESOTA . . . . .	65	23	2 214	9 222	1 945	3 809	6 907	19 628	2 092	1 550	10 498
	IOWA . . . . .	33	15	1 510	5 832	1 208	2 347	4 145	12 652	570	(D)	(D)
	MISSOURI . . . . .	61	23	2 652	9 390	2 185	4 089	6 964	14 528	628	2 935	16 298
	KANSAS . . . . .	22	3	138	490	114	226	374	829	31	103	731
	SOUTH . . . . .	375	93	13 715	51 720	11 637	22 115	37 519	105 587	4 201	10 141	68 230
	SOUTH ATLANTIC . . . . .	157	41	6 185	24 308	5 164	9 970	17 160	50 091	2 023	4 601	33 382
	MARYLAND . . . . .	14	5	603	2 680	507	897	1 763	5 257	(D)	401	2 791
	WEST VIRGINIA . . . . .	10	4	664	2 731	624	1 224	2 445	5 015	55	(D)	(D)
	NORTH CAROLINA . . . . .	19	4	533	1 654	451	933	1 328	2 666	350	(D)	(D)
	FLORIDA . . . . .	71	10	818	2 490	731	1 360	1 962	4 693	189	538	3 220

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
		Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
394	TOYS AND SPORTING GOODS—CONTINUED											
	EAST SOUTH CENTRAL . . . . .	78	25	2 970	11 144	2 576	4 669	8 359	20 053	1 108	2 644	16 876
	ALABAMA . . . . .	22	6	628	2 368	543	1 090	1 632	3 855	138	605	4 564
	WEST SOUTH CENTRAL . . . . .	140	27	4 560	16 268	3 897	7 476	12 000	35 443	1 070	2 896	17 972
	ARKANSAS . . . . .	18	6	1 861	7 303	1 566	3 288	5 350	15 014	477	1 302	9 477
	TEXAS . . . . .	89	18	1 967	6 492	1 693	3 005	4 676	12 230	369	1 118	6 350
	WEST . . . . .	455	81	11 716	53 352	9 157	17 366	33 438	128 893	7 685	6 786	54 406
	MOUNTAIN . . . . .	54	7	888	3 053	760	1 554	2 339	4 088	129	982	4 967
	COLORADO . . . . .	24	5	589	2 102	498	1 067	1 598	2 510	63	654	3 478
	PACIFIC . . . . .	401	74	10 828	50 299	8 397	15 812	31 099	124 805	7 556	5 804	49 439
	OREGON . . . . .	32	7	560	1 958	488	840	1 501	3 317	206	299	1 834
	CALIFORNIA . . . . .	319	63	9 935	47 172	7 629	14 466	28 679	119 093	7 228	5 225	45 631
395	PENS. PENCILS. OFFICE SUPPLIES. TOTAL	1 001	266	31 594	159 759	23 161	46 096	94 916	337 725	10 143	29 131	236 997
	NORTHEAST . . . . .	427	132	14 667	70 027	10 987	21 834	43 764	150 285	4 675	14 072	102 626
	NEW ENGLAND . . . . .	86	24	2 593	13 547	1 940	3 820	8 433	44 350	923	2 716	20 145
	MASSACHUSETTS . . . . .	46	7	833	4 104	660	1 284	3 009	13 287	338	690	6 129
	RHODE ISLAND . . . . .	10	3	400	1 791	359	712	1 327	3 768	52	(D)	(D)
	CONNECTICUT . . . . .	26	14	1 355	7 625	917	1 816	4 076	27 222	530	1 628	12 171
	MIDDLE ATLANTIC . . . . .	341	108	12 074	56 480	9 047	18 014	35 331	105 935	3 752	11 356	82 481
	NEW YORK . . . . .	208	65	6 329	29 891	4 909	9 598	18 750	55 643	2 103	5 753	42 078
	NEW JERSEY . . . . .	75	27	3 511	15 200	2 484	5 109	9 400	28 839	1 041	3 400	24 321
	PENNSYLVANIA . . . . .	58	16	2 234	11 389	1 654	3 307	7 201	21 453	608	2 203	16 082
	NORTH CENTRAL AND SOUTH . . . . .	412	102	13 766	71 430	10 007	19 924	41 420	143 896	3 735	2 508	109 316
	OHIO . . . . .	46	10	1 519	8 361	918	1 794	4 223	15 865	258	1 610	13 332
	ILLINOIS . . . . .	77	35	2 369	12 821	1 741	3 544	7 809	24 774	764	2 025	18 954
	MICHIGAN . . . . .	30	6	458	3 228	298	636	2 018	5 304	157	416	3 575
	MISSOURI . . . . .	22	9	894	3 916	678	1 360	2 388	6 569	135	584	3 547
	GEORGIA . . . . .	15	6	1 719	7 825	1 398	2 889	4 691	19 300	466	(D)	(D)
	FLORIDA . . . . .	31	1	120	587	86	167	442	1 132	44	(D)	(D)
	TEXAS . . . . .	29	2	188	948	123	254	585	2 003	103	222	1 946
	WEST . . . . .	162	32	3 161	18 302	2 167	4 338	9 732	43 544	1 733	2 551	25 055
	MOUNTAIN . . . . .	26	5	282	2 208	135	278	579	3 568	57	278	2 432
	COLORADO . . . . .	10	4	233	1 949	115	237	484	3 107	33	204	2 049
	PACIFIC . . . . .	136	27	2 879	16 094	2 032	4 060	9 153	39 976	1 676	2 273	22 623
	WASHINGTON . . . . .	12	1	105	526	63	135	307	1 011	4	(D)	(D)
	CALIFORNIA . . . . .	115	25	2 709	15 214	1 920	3 833	8 579	38 304	1 641	1 924	19 985
396	COSTUME JEWELRY AND NOTIONS. TOTAL	1 929	492	52 483	214 061	43 894	83 919	152 518	414 812	13 029	56 274	338 324
	NORTHEAST . . . . .	1 513	404	43 244	179 428	35 957	68 661	126 729	324 572	9 575	47 734	283 146
	NEW ENGLAND . . . . .	436	144	19 592	84 398	16 440	31 374	59 531	152 412	4 105	22 049	125 925
	MASSACHUSETTS . . . . .	59	23	3 731	16 174	3 230	6 432	11 327	35 309	454	4 339	29 631
	CONNECTICUT . . . . .	56	35	6 160	32 054	5 008	9 904	22 965	59 425	2 182	5 169	36 105
	MIDDLE ATLANTIC . . . . .	1 077	260	23 652	95 030	19 517	37 287	67 198	172 160	5 470	25 685	157 221
	NEW YORK . . . . .	961	218	18 313	71 401	15 310	29 014	51 131	132 096	3 891	19 999	117 453
	NEW JERSEY . . . . .	77	27	2 936	12 478	2 485	4 904	9 149	23 489	1 020	2 936	21 432
	PENNSYLVANIA . . . . .	39	15	2 403	11 151	1 722	3 369	6 918	16 575	559	2 750	18 336
	NORTH CENTRAL . . . . .	158	40	3 914	14 694	3 208	5 926	9 773	32 455	1 188	4 688	30 827
	EAST NORTH CENTRAL . . . . .	103	22	1 866	7 627	1 466	2 630	4 735	16 541	542	2 734	20 357
	OHIO . . . . .	12	3	168	734	146	255	559	1 444	70	199	2 136
	ILLINOIS . . . . .	55	12	1 307	5 504	985	1 768	3 177	11 211	334	1 926	12 515
	WEST NORTH CENTRAL . . . . .	55	18	2 048	7 067	1 742	3 296	5 038	15 914	646	1 954	10 470
	MINNESOTA . . . . .	11	3	130	305	115	193	234	511	4	(D)	(D)
	SOUTH . . . . .	126	34	3 975	14 096	3 586	7 064	11 791	46 803	1 938	2 783	18 163
	MARYLAND . . . . .	12	3	174	695	152	289	492	1 381	111	300	1 243
	VIRGINIA . . . . .	10	4	772	2 847	717	1 343	2 517	4 664	170	503	4 120
	NORTH CAROLINA . . . . .	16	4	501	1 680	454	881	1 373	4 664	207	188	1 500
	FLORIDA . . . . .	28	4	219	664	193	350	541	1 739	53	247	928
	ALABAMA . . . . .	6	4	243	815	215	452	627	1 589	27	131	542
	WEST . . . . .	132	14	1 350	5 843	1 143	2 268	4 225	10 981	328	1 069	6 188
	MOUNTAIN . . . . .	26	1	150	329	122	223	244	815	39	(D)	(D)
	PACIFIC . . . . .	106	13	1 200	5 514	1 021	2 045	3 981	10 166	289	(D)	(D)
	CALIFORNIA . . . . .	78	13	1 083	5 165	919	1 870	3 672	9 555	265	794	4 837

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Capital expenditures, new (\$1,000)	All employees (number)	Value added by manufacture, adjusted (\$1,000)
		Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
398 399	MISCELLANEOUS MANUFACTURES, TOTAL . . . . .	6 590	1 460	130 304	648 648	103 517	202 838	450 926	1 236 557	42 816	123 174	952 340
	NORTHEAST . . . . .	2 501	621	59 103	291 434	48 007	93 726	210 600	596 322	18 644	56 487	448 845
	NEW ENGLAND . . . . .	420	107	11 372	55 484	9 009	17 901	38 316	123 068	3 655	11 121	99 524
	MAINE . . . . .	23	4	461	1 762	411	870	1 400	3 481	152	(D)	(D)
	NEW HAMPSHIRE . . . . .	21	4	576	2 474	534	1 067	2 195	4 034	(D)	568	4 109
	VERMONT . . . . .	13	5	338	1 079	270	472	822	2 455	(D)	(D)	(D)
	MASSACHUSETTS . . . . .	206	61	6 786	34 048	5 194	10 298	22 677	62 393	1 987	6 597	46 704
	RHODE ISLAND . . . . .	63	11	1 007	3 627	846	1 729	2 843	6 184	134	(D)	(D)
	CONNECTICUT . . . . .	94	22	2 204	12 494	1 754	3 465	8 379	44 521	574	(D)	(D)
	MIDDLE ATLANTIC . . . . .	2 081	514	47 731	235 950	38 998	75 825	172 284	473 254	14 989	45 366	349 321
	NEW YORK . . . . .	1 379	325	26 130	126 708	21 397	41 539	91 607	231 003	5 893	24 019	171 264
	NEW JERSEY . . . . .	329	95	8 894	43 475	7 241	13 796	30 738	80 508	3 188	(D)	(D)
	PENNSYLVANIA . . . . .	373	94	12 707	65 767	10 360	20 490	49 939	161 743	5 908	(D)	(D)
	NORTH CENTRAL . . . . .	1 752	454	42 058	218 797	32 596	64 884	144 788	392 904	13 580	40 656	316 155
	EAST NORTH CENTRAL . . . . .	1 308	357	34 109	183 730	26 431	53 197	120 790	328 846	11 731	33 244	264 894
	OHIO . . . . .	313	99	9 440	47 702	7 212	14 138	31 129	83 658	2 894	(D)	(D)
	INDIANA . . . . .	141	31	3 585	20 542	2 656	5 498	12 623	44 004	2 150	(D)	(D)
	ILLINOIS . . . . .	472	146	14 007	76 426	11 089	22 628	50 910	129 127	4 092	14 206	109 845
	MICHIGAN . . . . .	239	45	3 893	23 405	2 957	5 846	15 403	37 623	1 479	(D)	(D)
	WISCONSIN . . . . .	143	36	3 184	15 655	2 517	5 087	10 725	34 434	1 116	(D)	(D)
	WEST NORTH CENTRAL . . . . .	444	97	7 949	35 067	6 165	11 687	23 998	64 058	1 849	7 412	51 261
	MINNESOTA . . . . .	103	30	2 678	12 130	2 075	3 837	8 268	18 691	655	(D)	(D)
	IOWA . . . . .	85	12	1 337	5 960	1 028	1 994	4 043	13 758	256	(D)	(D)
	MISSOURI . . . . .	147	40	2 889	12 587	2 266	4 316	8 651	23 561	458	(D)	(D)
	SOUTH DAKOTA . . . . .	12	1	106	393	80	154	257	646	20	56	331
	KANSAS . . . . .	47	5	430	1 895	323	653	1 314	3 362	234	(D)	(D)
	SOUTH . . . . .	1 261	209	16 445	67 314	13 305	25 797	47 314	123 881	5 600	14 547	92 578
	SOUTH ATLANTIC . . . . .	603	100	8 474	35 359	6 873	13 033	24 458	63 485	3 298	(D)	(D)
	DELAWARE . . . . .	14	1	195	440	172	253	288	470	13	(D)	(D)
	MARYLAND . . . . .	76	18	1 581	7 442	1 252	2 479	4 851	12 429	777	(D)	(D)
	DISTRICT OF COLUMBIA . . . . .	14	3	172	1 041	133	263	769	1 403	53	119	798
	VIRGINIA . . . . .	62	10	969	4 379	788	1 528	3 099	7 666	252	(D)	(D)
	WEST VIRGINIA . . . . .	18	1	153	644	117	248	439	1 010	87	(D)	(D)
	NORTH CAROLINA . . . . .	86	18	1 338	4 577	1 148	2 245	3 295	8 311	365	(D)	(D)
	SOUTH CAROLINA . . . . .	35	8	793	3 583	635	1 294	2 265	8 491	259	(D)	(D)
	GEORGIA . . . . .	87	14	1 379	5 022	1 140	1 771	3 639	9 254	413	(D)	(D)
	FLORIDA . . . . .	211	27	1 894	8 231	1 488	2 952	5 813	14 451	1 079	(D)	(D)
	EAST SOUTH CENTRAL . . . . .	229	49	3 559	13 745	2 899	5 810	10 072	26 173	1 103	(D)	(D)
	KENTUCKY . . . . .	56	10	706	3 029	594	1 210	2 255	5 529	177	(D)	(D)
	TENNESSEE . . . . .	99	26	1 907	7 116	1 520	3 065	5 203	14 699	699	(D)	(D)
	ALABAMA . . . . .	51	10	715	2 748	593	1 124	1 961	4 499	159	(D)	(D)
	MISSISSIPPI . . . . .	23	3	231	852	192	411	653	1 446	68	158	925
	WEST SOUTH CENTRAL . . . . .	429	60	4 412	18 210	3 533	6 954	12 784	34 223	1 199	(D)	28 689
	ARKANSAS . . . . .	40	9	565	1 973	470	989	1 416	3 855	74	427	2 253
	LOUISIANA . . . . .	53	6	666	2 674	540	1 052	1 912	5 086	96	(D)	(D)
	OKLAHOMA . . . . .	68	5	537	2 186	404	798	1 560	3 952	127	(D)	(D)
	TEXAS . . . . .	268	40	2 644	11 377	2 119	4 115	7 896	21 330	902	(D)	(D)
	WEST . . . . .	1 078	177	12 756	71 338	9 648	18 490	48 338	123 364	5 013	11 374	94 158
	MOUNTAIN . . . . .	200	30	1 841	10 139	1 387	2 690	6 937	17 753	1 532	1 501	10 816
	MONTANA . . . . .	17	-	113	742	76	140	479	1 686	14	(D)	(D)
	COLORADO . . . . .	63	11	632	3 240	469	895	2 077	5 898	26	(D)	(D)
	NEW MEXICO . . . . .	20	2	138	686	113	213	475	985	38	(D)	(D)
	ARIZONA . . . . .	36	5	308	1 584	228	439	1 161	2 632	103	(D)	(D)
	UTAH . . . . .	32	8	369	2 128	289	591	1 528	3 547	963	(D)	(D)
	NEVADA . . . . .	11	3	182	1 222	140	274	856	1 767	78	(D)	(D)
	PACIFIC . . . . .	878	147	10 915	61 199	8 261	15 800	41 401	105 611	3 481	9 873	83 342
	WASHINGTON . . . . .	102	17	1 052	6 004	812	1 481	4 100	8 759	408	948	7 252
	OREGON . . . . .	70	12	709	3 766	519	940	2 331	6 089	371	554	4 462
	CALIFORNIA . . . . .	683	116	8 952	50 913	6 761	13 080	34 650	90 022	2 676	8 371	71 628
	HAWAII . . . . .	19	2	194	465	163	287	279	632	19	-	-

Standard Notes: - Represents zero.

(D) Withheld to avoid disclosing figures for individual companies.

(NA) Not available.

(X) Not applicable.



TABLE 3. Detailed Statistics: 1963

Item	Miscellaneous manufacturing (SIC 39)	Jewelry and silver- ware (SIC 391)	Musical instruments and parts (SIC 393)	Toys and sporting goods (SIC 394)	Pens, pencils, and office supplies (SIC 395)	Costume jewelry and notions (SIC 396)	Miscellaneous manufactures (SIC 398 and 399)
ESTABLISHMENTS, TOTAL . . . . . NUMBER . .	14 723	2 193	320	2 690	1 001	1 929	6 590
WITH 1 TO 19 EMPLOYEES . . . . . DO . .	11 104	1 806	194	1 803	734	1 437	5 130
WITH 20 TO 99 EMPLOYEES . . . . . DO . .	2 832	316	79	627	199	390	1 221
WITH 100 EMPLOYEES OR MORE . . . . . DO . .	786	71	47	260	67	102	239
PROPRIETORS AND WORKING PARTNERS . . . . . DO . .	8 397	1 422	133	1 314	531	1 110	3 887
ALL EMPLOYEES (AVERAGE FOR THE YEAR) . . . . . DO . .	390 760	43 151	20 095	113 133	31 594	52 483	130 304
PAYROLL (ALL EMPLOYEES), TOTAL FOR YEAR . . . . . \$1,000 . .	1 812 104	225 659	103 029	460 948	159 759	214 061	648 648
PRODUCTION WORKERS:							
AVERAGE FOR THE YEAR . . . . . NUMBER . .	315 017	33 506	16 664	94 275	23 161	43 894	103 517
MARCH . . . . . DO . .	297 043	32 796	17 218	80 807	22 610	42 217	101 395
MAY . . . . . DO . .	307 438	33 130	15 650	91 437	22 923	42 187	102 111
AUGUST . . . . . DO . .	324 297	33 068	16 226	101 925	23 204	45 238	104 636
NOVEMBER . . . . . DO . .	331 969	35 096	17 597	102 972	23 959	46 087	106 258
MAN-HOURS . . . . . 1,000 . .	613 227	67 690	33 600	179 084	46 096	83 919	202 838
JANUARY-MARCH . . . . . DO . .	143 726	16 754	8 388	37 655	11 198	20 167	49 564
APRIL-JUNE . . . . . DO . .	151 757	16 761	8 102	43 918	11 542	20 643	50 791
JULY-SEPTEMBER . . . . . DO . .	153 633	15 942	7 720	47 890	11 387	20 843	49 851
OCTOBER-DECEMBER . . . . . DO . .	164 123	18 233	9 390	49 632	11 969	22 266	52 633
WAGES . . . . . \$1,000 . .	1 253 518	154 112	76 471	324 575	94 916	152 518	450 926
COST OF MATERIALS, ETC., TOTAL <sup>1</sup> . . . . . DO . .	2 965 024	441 822	143 136	1 864 230	252 046	1 347 058	916 732
MATERIALS, PARTS, CONTAINERS, AND SUPPLIES CONSUMED . . . . . DO . .	2 555 720	370 253	132 015	736 862	216 072	300 237	800 281
COST OF REALES . . . . . DO . .	270 630	48 353	8 076	86 423	25 825	23 886	78 067
FUELS CONSUMED . . . . . DO . .	17 188	1 714	919	4 360	1 230	1 743	7 222
ELECTRIC ENERGY:							
PURCHASED:							
QUANTITY . . . . . MILLION KW.-HRS . .	1 868	184	77	582	146	253	626
COST . . . . . \$1,000 . .	31 346	3 211	1 357	9 370	2 587	4 226	10 595
GENERATED LESS SOLD . . . . . MILLION KW.-HRS . .	4 431	682	(D)	1 398	(D)	647	1 051
CONTRACT WORK . . . . . \$1,000 . .	90 123	18 292	769	27 214	6 332	16 967	20 549
VALUE OF SHIPMENTS (INCLUDING REALES), TOTAL <sup>1</sup> . . . . . DO . .	6 494 830	857 869	314 407	1 826 798	589 452	1 760 016	2 146 288
VALUE OF REALES . . . . . DO . .	413 356	64 176	10 848	133 844	37 464	44 520	122 504
VALUE ADDED BY MANUFACTURE, ADJUSTED . . . . . DO . .	3 562 361	415 747	179 035	978 485	337 725	414 812	1 236 557
MANUFACTURERS' INVENTORIES:							
BEGINNING OF YEAR, TOTAL . . . . . DO . .	1 076 627	189 989	55 295	334 249	89 634	104 223	303 237
FINISHED PRODUCTS . . . . . DO . .	451 780	92 955	12 252	158 385	29 100	43 255	115 833
WORK-IN-PROCESS . . . . . DO . .	264 392	50 303	27 515	69 915	21 184	29 744	65 731
MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO . .	360 454	46 732	15 528	105 948	39 350	31 223	121 673
END OF YEAR, TOTAL . . . . . DO . .	1 115 703	193 683	63 719	349 206	91 289	107 352	310 455
FINISHED PRODUCTS . . . . . DO . .	470 726	93 097	15 669	169 949	29 380	44 054	118 577
WORK-IN-PROCESS . . . . . DO . .	278 179	50 009	31 862	74 299	21 222	30 799	69 988
MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO . .	366 793	50 577	16 188	104 953	40 686	32 499	121 890
EXPENDITURES FOR PLANT AND EQUIPMENT, TOTAL . . . . . DO . .	140 045	8 694	6 152	55 047	10 606	13 969	45 577
NEW, TOTAL . . . . . DO . .	131 033	8 115	5 779	51 151	10 143	13 029	42 816
NEW STRUCTURES AND ADDITIONS TO PLANT . . . . . DO . .	34 101	1 994	2 551	13 501	1 123	2 419	12 513
NEW MACHINERY AND EQUIPMENT . . . . . DO . .	96 937	6 121	3 228	37 655	9 020	10 610	30 303
USED PLANT AND EQUIPMENT . . . . . DO . .	9 010	579	373	3 893	463	940	2 762
SELECTED OPERATING RATIOS:							
PAYROLL/TOTAL EMPLOYMENT . . . . .	4 637	5 230	5 127	4 074	5 057	4 079	4 978
PRODUCTION WORKERS/TOTAL EMPLOYMENT . . . . .	.81	.78	.83	.83	.73	.84	.79
MAN-HOURS/PRODUCTION WORKERS . . . . .	1 947	2 020	2 016	1 900	1 990	1 912	1 959
PRODUCTION WORKER WAGES/MAN-HOURS . . . . .	2.04	2.28	2.28	1.81	2.06	1.82	2.22
COST OF MATERIALS AND PAYROLLS/TOTAL VALUE OF SHIPMENTS . . . . .	.74	.78	.78	.73	.70	.74	.73
COST OF MATERIALS/TOTAL VALUE OF SHIPMENTS . . . . .	.46	.52	.46	.47	.43	.46	.43
ADJUSTED VALUE ADDED/TOTAL EMPLOYMENT . . . . .	9 116	9 635	8 909	8 649	10 690	7 904	9 490
SALARIES AND WAGES/ADJUSTED VALUE ADDED . . . . .	.51	.54	.58	.47	.47	.52	.52

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry. For a more complete explanation, see Introduction.

## JEWELRY, SILVERWARE, AND PLATED WARE

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3911—Jewelry, Precious Metal
- 3912—Jewelers' Findings and Materials
- 3913—Lapidary Work and Cutting and Polishing Diamonds
- 3914—Silverware and Plated Ware

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1-4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3911—JEWELRY, PRECIOUS METAL

This industry comprises establishments primarily engaged in manufacturing jewelry and other articles, worn on or carried about the person, made of precious metals with or without stones (including the setting of stones where stones are used), including cigarette cases and lighters, vanity cases and compacts, trimmings for umbrellas and canes, and jewel settings and mountings. Establishments primarily engaged in manufacturing costume jewelry from nonprecious metals and other materials are classified in industry 3961. For a detailed list of products of industry 3911, refer to table 6A, product codes 3911298.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Jewelry, Precious Metal Industry in 1963 totaled \$482 million. This amount included shipments of precious metal jewelry (primary products) valued at \$387 million, shipments of other products (secondary products) valued at \$32 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$63 million.

This industry's shipments of precious metal jewelry in 1963 represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent.



Secondary products shipped by this industry in 1963 include costume jewelry and costume novelties, except precious metal (\$12 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 73 percent of the total industry shipments are represented by plants specializing in jewelry made of platinum metals and carat gold and 21 percent in Jewelry made of precious metals, except platinum metals and carat gold.

Shipments of precious metal jewelry by this industry in 1963 represented 97 percent of all shipments of these products (\$400 million) by all industries. In 1958 the coverage ratio was 98 percent. Another industry shipping precious metal jewelry (primary products) was industry 3961, Costume Jewelry \$4 million.

#### 3912--JEWELERS' FINDINGS AND MATERIALS

This industry comprises establishments primarily engaged in manufacturing unassembled jewelry parts and stock shop products such as sheet, wire, and tubing. Establishments primarily engaged in lapidary work are classified in industry 3913. For a detailed list of products of industry 3912, refer to table 6A, product codes 3912011 to 3912051.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Jewelers' Findings and Materials Industry in 1963 totaled \$73 million. This amount included shipments of jewelers' findings and materials (primary products) valued at \$63 million, shipments of other products (secondary products) valued at \$6 million, and miscellaneous receipts at \$4 million.

This industry's shipments of jewelers' findings and materials in 1963 represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 90 percent.

#### 3913--LAPIDARY WORK AND CUTTING AND POLISHING DIAMONDS

This industry comprises establishments primarily engaged in all types of lapidary work, and cutting and polishing diamonds. This industry also includes establishments primarily engaged in cutting and polishing other precious stones; recutting and setting stones; preparing jewels for instruments, tools, and for watches and chronometers; and preparing real and imitation stones for settings. For a detailed list of products of industry 3913, refer to table 6A, product codes 3913011 to 3913031.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Lapidary Work Industry in 1963 totaled \$65 million. This amount included receipts for lapidary work (primary products) valued at \$55 million, shipments of other products (secondary products) valued at \$4 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$6 million.

This industry's receipts for lapidary work in 1963 represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 99 percent.

Value of lapidary work by this industry in 1963 represented 81 percent of all shipments of these products (\$68 million) performed by all industries. In 1958 the coverage ratio was 87 percent.

Excluded from the \$68 million value of shipments of lapidary work reported by all industries is the value of lapidary work by establishments classified in other industries (i.e., jewelry, etc.) where (1) this activity is combined with other finishing operations in the production of jewelry or other products or (2) this activity is reported as a receipt for contract work. Contract receipts for lapidary work were not separately reported or tabulated. The relatively small amount of lapidary work done in retail stores is also excluded.

#### 3914—SILVERWARE AND PLATED WARE

This industry comprises establishments primarily engaged in manufacturing flatware (including knives, forks and spoons), hollow ware, toilet ware, ecclesiastical ware, and related products made of sterling silver; of metal plated with silver, gold, or other metal; of nickel silver; of pewter; or of stainless steel.

"Flatware" is defined for purposes of the census as all knives, forks, spoons, etc., made wholly of metal, including stainless steel knives, forks, and spoons, and carving sets with metal handles. Knives, forks, spoons, etc., with handles of materials other than metal are included in industry 3421, Cutlery. For a detailed list of products of industry 3914, refer to table 6A, product codes 3914111 to 3914261.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Silverware and Plated Ware Industry in 1963 totaled \$238 million. This amount included shipments of silverware and plated ware (primary products) valued at \$209 million, shipments of other products (secondary products) valued at \$11 million, and miscellaneous receipts, at \$19 million.

This industry's shipments of silverware and plated ware in 1963 represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was also 95 percent.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 66 percent of the total industry shipments are represented by plants specializing in jewelry made of platinum metals and karat gold and 21 percent in jewelry made of precious metals, except platinum metals and karat gold.

Shipments of silverware and plated ware by this industry in 1963 represented 98 percent of all shipments of these products (\$212 million) by all industries. In 1958 the coverage ratio was also 98 percent.



# JEWELRY AND SILVERWARE: SIC 391 Value Added by Manufacture by State: 1963

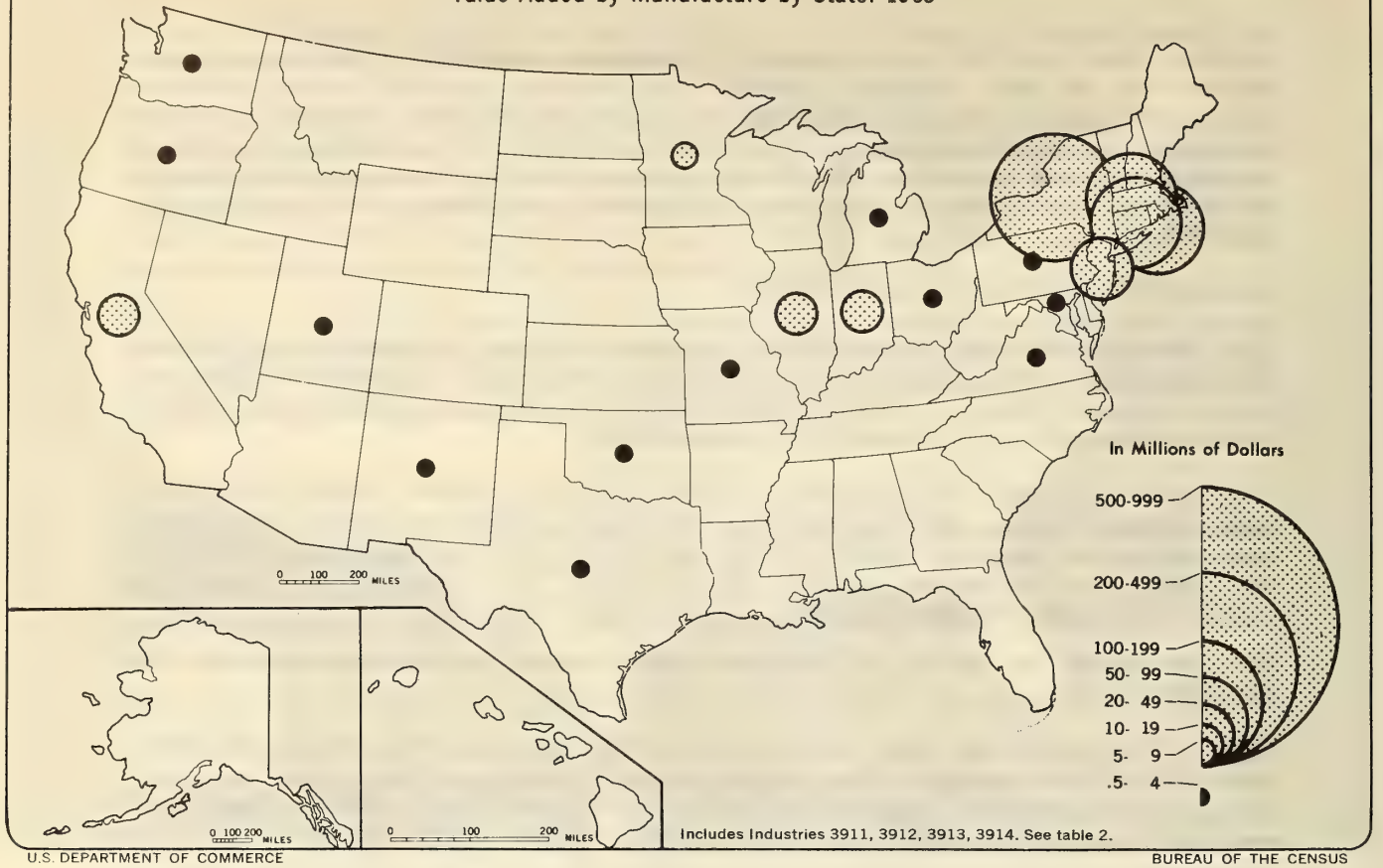


TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new  (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3911.—JEWELRY, PRECIOUS METAL														
1963.....	1,428	1,438	218	23,551	125,610	17,455	35,601	79,251	234,925	248,405	481,943	3,676	92	97
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,740	112,888	16,092	34,617	72,533	203,942	210,974	411,367	1,764	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,384	106,495	15,753	33,392	67,824	189,561	198,019	386,492	2,384	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,775	102,578	15,459	32,476	65,456	188,953	182,280	362,719	2,424	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,596	99,136	15,510	32,137	64,107	174,567	173,512	348,324	(2,850)	(NA)	(NA)
1958.....	1,300	1,302	183	21,196	95,134	15,924	30,749	60,726	166,579	160,480	327,251	3,461	95	98
1954.....	1,323	1,327	204	23,455	90,373	18,440	36,438	58,328	149,600	123,312	273,537	1,836	93	96
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,806	89,091	17,547	35,369	62,360	148,051	129,989	278,040	(NA)	(NA)	(NA)
1947.....	1,342	1,344	254	25,566	76,462	20,610	42,877	54,222	140,478	107,707	248,185	2,674	92	95
1939.....	(NA)	886	(NA)	15,058	22,388	11,358	(NA)	14,243	36,822	34,597	71,419	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	789	(NA)	(NA)	(NA)	11,077	(NA)	14,737	36,014	33,512	69,526	(NA)	(NA)	(NA)
INDUSTRY 3912.—JEWELERS' FINDINGS AND MATERIALS														
1963.....	228	228	67	4,816	20,836	3,924	7,684	14,001	33,958	38,816	72,833	1,308	92	89
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	4,854	21,485	3,909	7,702	13,948	38,798	37,631	74,834	(944)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	4,666	19,149	3,784	7,295	12,826	34,640	32,823	67,743	(894)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	4,497	18,519	3,626	7,027	12,318	37,724	31,715	65,843	(1,284)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	4,265	17,886	3,524	7,139	12,417	30,009	33,691	64,329	(1,247)	(NA)	(NA)
1958.....	248	248	55	4,227	16,380	3,496	6,776	11,479	26,787	29,947	57,475	637	90	87
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,056	22,892	4,867	9,398	15,051	36,654	42,889	80,817	890	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,064	22,215	5,055	9,910	14,937	42,573	44,303	84,307	2,954	(NA)	(NA)
1954.....	234	234	61	5,371	18,911	4,542	9,281	13,414	31,439	38,686	70,275	1,558	92	91
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,282	23,903	6,444	12,666	18,020	35,001	60,145	95,146	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,922	24,054	6,990	13,487	18,247	40,698	61,438	102,136	(NA)	(NA)	(NA)
1947.....	180	182	62	6,056	17,350	5,203	11,001	12,389	29,714	43,816	73,530	2,005	92	93
1939.....	(NA)	82	(NA)	3,412	4,790	2,813	(NA)	2,975	7,996	14,493	22,489	(NA)	(NA)	(NA)
1937.....	(NA)	71	(NA)	2,949	4,303	2,470	(NA)	3,002	7,110	14,574	21,684	(NA)	(NA)	(NA)
1935.....	(NA)	73	(NA)	3,099	3,865	2,663	(NA)	2,728	6,179	10,991	17,170	(NA)	(NA)	(NA)
1933.....	(NA)	60	(NA)	2,115	2,113	1,811	(NA)	1,604	3,747	5,503	9,250	(NA)	(NA)	(NA)
1931 <sup>2</sup> .....	(NA)	99	(NA)	(NA)	(NA)	1,899	(NA)	2,343	4,855	7,121	11,976	(NA)	(NA)	(NA)
INDUSTRY 3913.—LAPIDARY WORK														
1963.....	318	318	15	1,535	8,289	1,239	2,265	6,085	16,129	45,706	65,094	393	93	81
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	(1,929)	(8,310)	(1,721)	(2,879)	(5,794)	(16,473)	(28,398)	(44,852)	(329)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	(2,115)	(8,903)	(1,877)	(3,352)	(6,444)	(19,869)	(30,887)	(48,284)	(480)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	(1,694)	(7,967)	(1,458)	(2,811)	(5,598)	(14,735)	(25,103)	(40,043)	(S)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	(1,857)	(8,261)	(1,594)	(2,951)	(5,790)	(17,661)	(30,098)	(45,745)	(S)	(NA)	(NA)
1958.....	326	326	18	1,904	8,061	1,625	2,985	6,154	14,605	24,853	40,428	253	99	87
1954.....	332	333	14	1,759	5,459	1,591	2,757	4,067	11,181	29,136	40,266	118	97	91
1947.....	270	270	(NA)	1,699	5,524	1,525	3,068	4,532	10,860	19,409	30,269	148	98	98
1939.....	(NA)	90	(NA)	317	490	267	(NA)	391	1,374	3,755	5,129	(NA)	(NA)	(NA)
1937.....	(NA)	51	(NA)	271	426	217	(NA)	306	1,048	3,343	4,391	(NA)	(NA)	(NA)
1935.....	(NA)	60	(NA)	203	295	153	(NA)	201	806	1,244	2,050	(NA)	(NA)	(NA)
1933.....	(NA)	34	(NA)	136	154	107	(NA)	124	340	483	823	(NA)	(NA)	(NA)
1931.....	(NA)	53	(NA)	(NA)	(NA)	205	(NA)	340	1,097	1,378	2,475	(NA)	(NA)	(NA)
1929.....	(NA)	100	(NA)	629	1,399	506	(NA)	1,002	3,707	8,235	11,942	(NA)	(NA)	(NA)
1927.....	(NA)	92	(NA)	681	1,587	547	(NA)	1,221	3,219	9,133	12,352	(NA)	(NA)	(NA)
1925.....	(NA)	83	(NA)	692	1,608	589	(NA)	1,285	2,850	7,273	10,123	(NA)	(NA)	(NA)
1923.....	(NA)	87	(NA)	768	1,622	644	(NA)	1,286	3,243	5,887	9,130	(NA)	(NA)	(NA)
1921.....	(NA)	64	(NA)	516	1,112	399	(NA)	738	1,505	2,840	4,345	(NA)	(NA)	(NA)
1919.....	(NA)	124	(NA)	1,322	3,536	1,155	(NA)	2,838	10,688	19,363	30,051	(NA)	(NA)	(NA)
1914.....	(NA)	89	(NA)	688	807	584	(NA)	641	1,419	3,941	5,360	(NA)	(NA)	(NA)
1909.....	(NA)	77	(NA)	796	1,084	627	(NA)	889	2,613	6,560	9,173	(NA)	(NA)	(NA)
1904.....	(NA)	54	(NA)	609	766	507	(NA)	657	1,423	6,224	7,647	(NA)	(NA)	(NA)
1899.....	(NA)	60	(NA)	541	550	498	(NA)	499	1,130	4,656	5,786	(NA)	(NA)	(NA)
INDUSTRY 3914.—SILVERWARE AND PLATED WARE														
1963.....	201	209	87	13,249	70,924	10,888	22,140	54,775	130,735	108,895	237,999	2,738	95	98
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	13,969	72,043	11,531	23,395	55,810	130,047	107,636	235,716	2,391	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	14,101	67,980	11,631	23,081	51,979	130,231	102,721	232,874	2,178	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	14,368	68,252	11,814	23,266	51,425	123,932	100,087	221,652	(S)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	14,396	68,514	11,824	23,873	52,661	121,302	98,957	217,348	(S)	(NA)	(NA)
1958.....	198	209	87	13,852	62,318	11,226	21,851	47,602	109,728	85,185	196,055	2,478	95	98
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,358	67,244	12,690	24,605	52,407	111,458	83,386	193,782	(NA)	89	96
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	15,881	68,598	13,077	26,309	53,445	117,762	94,180	212,277	4,025	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,965	71,134	14,036	28,615	55,169	116,515	99,849	211,703	3,987	(NA)	(NA)
1954.....	190	207	97	17,345	68,064	14,379	28,957	53,876	109,836	105,711	217,183	3,826	91	97

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
	INDUSTRY 3914.—SILVERWARE AND PLATED WARE—Continued													
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,087	72,524	14,782	31,006	57,128	114,832	103,089	217,921	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,151	71,613	15,837	32,761	55,080	118,318	100,915	219,233	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,504	78,296	18,889	37,720	60,973	130,640	117,332	247,972	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,192	81,795	20,184	42,810	64,353	139,487	123,085	262,572	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,998	77,944	20,360	42,495	61,192	124,108	103,192	227,300	(NA)	(NA)	(NA)
1947.....	221	236	(NA)	21,848	69,149	18,791	41,723	56,363	123,311	98,273	221,584	5,358	98	97
1939.....	(NA)	153	(NA)	(NA)	(NA)	13,166	(NA)	16,574	39,628	26,415	66,043	(NA)	(NA)	(NA)
1937.....	(NA)	136	(NA)	13,248	17,496	11,361	(NA)	13,790	34,063	22,670	56,733	(NA)	(NA)	(NA)
1935.....	(NA)	139	(NA)	11,865	14,240	10,194	(NA)	11,078	28,074	15,298	43,372	(NA)	(NA)	(NA)
1933.....	(NA)	126	(NA)	10,340	9,911	9,177	(NA)	8,229	21,908	12,425	34,333	(NA)	(NA)	(NA)
1931.....	(NA)	163	(NA)	(NA)	(NA)	11,077	(NA)	12,713	34,023	11,792	45,815	(NA)	(NA)	(NA)
1929.....	(NA)	179	(NA)	18,697	30,278	15,735	(NA)	22,578	58,996	26,886	85,882	(NA)	(NA)	(NA)
1927.....	(NA)	178	(NA)	19,558	30,985	16,719	(NA)	23,945	56,047	31,377	87,424	(NA)	(NA)	(NA)
1925.....	(NA)	183	(NA)	19,827	30,433	16,877	(NA)	23,844	53,685	33,177	86,862	(NA)	(NA)	(NA)
1923.....	(NA)	181	(NA)	20,182	29,691	17,090	(NA)	22,971	50,432	30,673	81,105	(NA)	(NA)	(NA)
1921.....	(NA)	169	(NA)	17,573	23,381	14,822	(NA)	17,815	36,981	21,374	58,355	(NA)	(NA)	(NA)
1919.....	(NA)	167	(NA)	18,976	24,039	15,945	(NA)	18,273	39,934	30,827	70,761	(NA)	(NA)	(NA)
1914.....	(NA)	180	(NA)	18,344	13,303	15,787	(NA)	9,796	21,691	16,580	38,271	(NA)	(NA)	(NA)
1909.....	(NA)	183	(NA)	18,660	13,027	16,610	(NA)	10,282	23,897	18,332	42,229	(NA)	(NA)	(NA)
1904.....	(NA)	158	(NA)	16,185	10,356	14,861	(NA)	8,625	18,381	14,459	32,840	(NA)	(NA)	(NA)
1899.....	(NA)	169	(NA)	13,334	7,988	12,205	(NA)	6,531	14,455	11,659	26,114	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>No comparable data available for earlier years.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3911.—JEWELRY, PRECIOUS METAL													
Total.....	1,438	218	23,551	125,610	17,455	35,601	79,251	234,925	248,405	481,943	3,676	21,196	166,579
New England.....	189	63	7,596	38,129	5,901	12,226	23,000	65,418	37,725	103,712	1,378	6,787	41,451
Massachusetts....	59	21	3,949	22,565	2,825	6,056	11,909	32,146	17,867	50,091	675	3,293	20,014
Rhode Island.....	120	42	3,610	15,363	3,049	6,111	10,936	33,077	19,618	53,148	701	3,448	21,132
Middle Atlantic....	912	115	11,184	62,356	8,130	16,283	39,394	115,909	170,982	284,707	1,594	10,086	85,386
New York.....	780	85	8,288	46,540	6,002	11,893	29,268	92,321	150,404	239,780	1,210	7,120	63,227
New Jersey.....	70	26	2,511	14,073	1,864	3,860	9,007	20,475	17,226	38,433	356	2,630	19,642
Pennsylvania.....	62	4	385	1,743	264	530	1,119	3,113	3,352	6,494	28	336	2,517
East North Central.	107	17	1,941	11,041	1,371	2,885	7,265	23,196	16,144	39,181	242	1,757	16,742
Ohio.....	35	5	293	1,615	221	440	1,123	2,957	2,627	5,517	55	( <sup>2</sup> )	( <sup>2</sup> )
Illinois.....	34	4	475	2,618	347	742	1,834	5,593	5,248	10,853	77	391	3,782
Michigan.....	18	6	356	2,181	197	397	1,075	4,536	4,075	8,420	47	277	2,618
West North Central.	21	5	857	4,737	514	1,099	2,678	10,144	8,675	18,816	173	756	9,242
South Atlantic....	27	2	134	628	107	226	505	1,091	960	2,067	(D)	( <sup>2</sup> )	( <sup>2</sup> )
East South Central.	6	2	139	470	111	234	388	562	209	791	(D)	( <sup>2</sup> )	( <sup>2</sup> )
West South Central.	23	2	368	1,751	262	557	1,158	3,350	1,835	5,276	(D)	( <sup>2</sup> )	( <sup>2</sup> )
Mountain.....	21	5	463	1,655	361	718	1,147	2,539	2,806	5,316	42	453	1,978
Pacific.....	132	7	869	4,843	698	1,373	3,716	12,716	9,069	22,077	190	845	8,650
California.....	106	6	712	4,086	562	1,099	3,066	11,448	8,119	19,827	174	579	6,987
INDUSTRY 3912.—JEWELERS' FINDINGS AND MATERIALS													
Total.....	228	67	4,816	20,836	3,924	7,684	14,001	33,958	38,816	72,833	1,308	4,227	26,787
New England.....	137	48	3,463	14,431	2,864	5,589	9,783	22,571	17,355	39,698	1,089	3,308	19,716
Rhode Island.....	122	39	3,103	12,928	2,558	4,982	8,728	20,409	14,448	34,556	495	( <sup>2</sup> )	( <sup>2</sup> )
Middle Atlantic....	80	19	1,330	6,335	1,040	2,057	4,160	11,106	21,310	32,702	208	865	6,749
New York.....	56	10	731	3,356	583	1,163	2,215	5,699	14,619	20,573	88	335	3,052
North Central, South and West....	11	-	23	70	20	38	58	281	151	433	11	54	322
INDUSTRY 3913.—LAPIDARY WORK													
Total.....	318	15	1,535	8,289	1,239	2,265	6,085	16,129	45,706	65,094	393	1,904	14,605
New England.....	46	4	262	810	225	412	603	1,828	980	3,093	41	269	1,358
Middle Atlantic....	223	9	868	5,419	698	1,247	4,005	10,948	41,435	54,787	188	1,171	11,048
New York.....	209	8	803	4,971	648	1,146	3,693	9,756	32,313	44,361	173	975	9,951
North Central.....	23	2	330	1,743	251	485	1,194	2,901	2,865	6,076	161	232	1,015
South and West....	26	-	75	317	65	121	283	452	426	1,138	3	232	1,184
INDUSTRY 3914.—SILVERWARE AND PLATED WARE													
Total.....	209	87	13,249	70,924	10,888	22,140	54,775	130,735	108,895	237,999	2,738	13,852	109,728
New England.....	66	35	7,933	43,032	6,527	13,333	33,748	80,650	71,853	151,007	1,507	8,026	69,031
Connecticut.....	21	13	3,542	21,273	3,185	6,601	18,943	36,492	40,255	76,388	534	3,947	34,621
Middle Atlantic....	83	28	3,698	19,813	3,126	6,412	15,778	35,114	25,567	60,808	880	4,215	30,959
New York.....	51	19	3,081	16,664	2,610	5,385	13,443	29,258	21,300	50,743	693	3,363	24,724
New Jersey.....	22	5	485	2,417	404	810	1,777	4,455	3,141	7,534	24	727	5,118
Pennsylvania.....	10	4	132	732	112	217	558	1,401	1,126	2,531	163	125	1,117
North Central.....	24	11	862	4,317	654	1,240	2,724	9,150	7,043	16,155	193	885	6,767
Illinois.....	13	8	655	3,325	474	921	1,955	6,401	5,184	11,496	173	589	3,958
South Atlantic....	9	4	322	1,505	248	480	952	2,093	1,862	3,951	56	379	473
West.....	22	8	381	1,983	295	598	1,419	3,200	2,143	5,118	93	347	2,498
California.....	16	6	274	1,401	210	428	1,003	2,060	1,630	3,484	31	292	2,065
All other divisions	5	1	53	274	38	77	154	528	427	960	9	-	-

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 3911, Jewelry, Precious Metal: New England—New Hampshire, 3 (1-19); Vermont, 1 (1-19); Connecticut, 6 (20-99); East North Central—Indiana, 13 (784); Wisconsin, 7 (20-99); West North Central—Minnesota, 8 (500-999); Iowa, 1 (1-19); Missouri, 7 (111); South Dakota, 4 (20-99); Nebraska, 1 (1-19); South Atlantic—Maryland, 2 (20-99); District of Columbia, 5 (1-19); Virginia, 1 (1-19); North Carolina, 3 (1-19); Georgia, 7 (1-19); Florida, 9 (20-99); East South Central—Kentucky, 3 (20-99); Tennessee, 3 (100-249); West South Central—Louisiana, 3 (1-19); Oklahoma, 5 (20-99); Texas, 15 (273); Mountain—Montana, 1 (1-19); Idaho, 2 (1-19); Colorado, 5 (1-19); New Mexico, 5 (100-249); Arizona, 5 (20-99); Utah, 3 (216); Pacific—Washington, 13 (20-99); Oregon, 7 (20-99); Alaska, 3 (1-19); Hawaii, 3 (20-99).

Footnotes continued on next page.



## Footnotes for Table 2—39A—Continued

SIC 3912, Jewelers' Findings and Materials: New England—New Hampshire, 1 (20-99); Massachusetts, 14 (250-499); Middle Atlantic—New Jersey, 22 (500-999); Pennsylvania, 2 (1-19); East North Central—Ohio, 1 (1-19); Illinois, 1 (1-19); South Atlantic—North Carolina, 1 (1-19); Florida, 1 (1-19); East South Central—Mississippi, 1 (1-19); Mountain—Colorado, 1 (1-19); New Mexico, 1 (1-19); Pacific—California, 4 (1-19).

SIC 3913, Lapidary Work: New England—Massachusetts, 6 (100-249); Rhode Island, 40 (100-249); Middle Atlantic—New Jersey, 10 (20-99); Pennsylvania, 4 (20-99); East North Central—Ohio, 5 (1-19); Indiana, 3 (114); Illinois, 6 (20-99); Michigan, 4 (20-99); West North Central—Minnesota, 1 (1-19); Missouri, 3 (1-19); North Dakota, 1 (100-249); South Atlantic—Maryland, 1 (1-19); North Carolina, 2 (1-19); Georgia, 1 (1-19); Florida, 2 (1-19); East South Central—Kentucky, 1 (1-19); West South Central—Louisiana, 1 (1-19); Texas, 1 (1-19); Mountain—Colorado, 2 (1-19); New Mexico, 1 (1-19); Arizona, 4 (1-19); Pacific—Washington, 1 (1-19); California, 8 (20-99); Alaska, 1 (1-19).

SIC 3914, Silverware and Plated Ware: New England—Maine, 2 (20-99); Massachusetts, 33 (2,771); Rhode Island, 10 (1,000-2,499); East North Central—Ohio, 5 (111); Indiana, 4 (20-99); Michigan, 2 (1-19); West North Central—Iowa, 1 (20-99); Kansas, 1 (1-19); South Atlantic—Maryland, 5 (205); Virginia, 1 (100-249); North Carolina, 1 (1-19); South Carolina, 1 (1-19); Florida, 1 (1-19); East South Central—Tennessee, 1 (20-99); Alabama, 1 (1-19); West South Central—Oklahoma, 1 (20-99); Texas, 2 (20-99); Mountain—Colorado, 1 (20-99); Arizona, 1 (1-19); Nevada, 1 (1-19); Pacific—Washington, 1 (1-19); Oregon, 2 (20-99).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

TABLE 3. Detailed Statistics: 1963

Item	Jewelry, precious metal (SIC 3911)	Jewelers' findings and materials (SIC 3912)	Lapidary work (SIC 3913)	Silverware and plated ware (SIC 3914)
Primary product specialization ratio.....	.92	.92	.93	.95
Coverage ratio.....	.97	.89	.81	.98
Establishments, total.....number..	1,438	228	318	209
With 1 to 19 employees.....do....	1,220	161	303	122
With 20 to 99 employees.....do....	183	58	13	62
With 100 employees or more.....do....	35	9	2	25
Proprietors and working partners.....do....	929	107	307	79
All employees (average for the year).....do....	23,551	4,816	1,535	13,249
Payroll (all employees), total for year.....\$1,000..	125,610	20,836	8,289	70,924
Production workers:				
Average for the year.....number..	17,455	3,924	1,239	10,888
March.....do....	17,016	3,803	1,229	10,748
May.....do....	17,237	3,838	1,223	10,832
August.....do....	17,157	3,993	1,236	10,682
November.....do....	18,456	4,087	1,265	11,288
Man-hours.....1,000..	35,601	7,684	2,265	22,140
January-March.....do....	8,699	1,882	568	5,605
April-June.....do....	8,824	1,909	572	5,456
July-September.....do....	8,409	1,832	539	5,162
October-December.....do....	9,669	2,061	586	5,917
Wages.....\$1,000..	79,251	14,001	6,085	54,775
Cost of materials, etc., total.....do....	248,405	38,816	45,706	108,895
Materials, parts, containers, and supplies consumed.....do....	196,640	36,601	39,559	97,453
Cost of resales.....do....	37,481	598	3,539	6,735
Fuels consumed.....do....	368	163	78	1,105
Electric energy:				
Purchased:				
Quantity.....million kw.-hrs..	55	14	14	101
Cost.....\$1,000..	1,097	308	224	1,582
Generated less sold.....million kw.-hrs..	(D)	-	-	(D)
Contract work.....\$1,000..	12,820	1,146	2,306	2,020
Value of shipments (including resales), total.....do....	481,943	72,833	65,094	237,999
Value of resales.....do....	50,048	852	5,525	7,751
Value added by manufacture, adjusted.....do....	234,925	33,958	16,129	130,735
Manufacturers' inventories:				
Beginning of year, total.....do....	99,797	12,448	18,652	59,092
Finished products.....do....	49,360	4,906	12,778	25,911
Work-in-process.....do....	22,874	5,033	2,127	20,269
Materials, supplies, fuel, etc.....do....	27,564	2,509	3,747	12,912
End of year, total.....do....	105,295	12,486	15,273	60,628
Finished products.....do....	51,038	5,385	9,860	26,814
Work-in-process.....do....	22,583	4,633	1,786	21,007
Materials, supplies, fuel, etc.....do....	31,675	2,468	3,627	12,807
Expenditures for plant and equipment, total.....do....	3,922	1,364	401	3,007
New, total.....do....	3,676	1,308	393	2,738
New structures and additions to plant.....do....	1,112	516	39	327
New machinery and equipment.....do....	2,564	792	354	2,411
Used plant and equipment.....do....	246	56	8	269
Selected operating ratios:				
Payroll/Total employment.....	5,333	4,326	5,400	5,353
Production workers/Total employment.....	.74	.81	.81	.82
Man-hours/Production workers.....	2,039	1,958	1,828	2,033
Production worker wages/Man-hours.....	2.23	1.82	2.69	2.47
Cost of materials and payrolls/Total value of shipments....	.78	.82	.83	.76
Cost of materials/Total value of shipments.....	.52	.53	.70	.46
Adjusted value added/Total employment.....	9,975	7,051	10,507	9,867
Salaries and wages/Adjusted value added.....	.53	.61	.51	.54

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3911.—JEWELRY, PRECIOUS METAL											
Establishments.....number..	1,438	754	256	210	128	55	25	4	5	1	-
All employees:											
Total.....do....	23,551	1,312	1,711	2,817	3,882	3,763	3,871	1,269	4,926	(D)	-
Payroll.....\$1,000..	125,610	6,247	8,718	14,909	20,173	19,298	19,403	6,309	30,553	(D)	-
Value added, adjusted.....do....	234,925	12,817	15,483	24,789	37,682	35,535	42,492	10,565	55,562	(D)	-
Value of shipments.....do....	481,943	29,839	34,520	58,810	85,626	63,686	108,678	16,351	84,433	(D)	-
Capital expenditures, new.....do....	3,676	251	207	374	541	439	973	(D)	891	(D)	-
INDUSTRY 3912.—JEWELERS' FINDINGS AND MATERIALS											
Establishments.....number..	228	93	41	27	46	12	7	2	-	-	-
All employees:											
Total.....do....	4,816	176	274	372	1,427	841	1,726	(D)	-	-	-
Payroll.....\$1,000..	20,836	591	1,000	1,402	6,440	3,742	7,661	(D)	-	-	-
Value added, adjusted.....do....	33,958	1,397	1,813	2,247	9,487	6,751	12,264	(D)	-	-	-
Value of shipments.....do....	72,833	2,632	3,175	4,267	17,156	22,300	23,303	(D)	-	-	-
Capital expenditures, new.....do....	1,308	68	114	89	299	548	190	(D)	-	-	-
INDUSTRY 3913.—LAPIDARY WORK											
Establishments.....number..	318	246	38	19	11	2	2	-	-	-	-
All employees:											
Total.....do....	1,535	349	249	238	283	416	(D)	-	-	-	-
Payroll.....\$1,000..	8,289	1,552	1,467	1,017	1,878	2,375	(D)	-	-	-	-
Value added, adjusted.....do....	16,129	2,573	3,205	2,730	3,129	4,492	(D)	-	-	-	-
Value of shipments.....do....	65,094	11,018	22,992	7,774	10,341	12,969	(D)	-	-	-	-
Capital expenditures, new.....do....	393	56	44	63	55	175	(D)	-	-	-	-
INDUSTRY 3914.—SILVERWARE AND PLATED WARE											
Establishments.....number..	209	70	27	25	45	17	11	8	4	2	-
All employees:											
Total.....do....	13,249	119	190	343	1,373	1,181	1,593	2,632	5,818	(D)	-
Payroll.....\$1,000..	70,924	582	852	1,587	6,563	5,950	8,159	13,336	33,895	(D)	-
Value added, adjusted.....do....	130,735	1,126	1,414	2,748	11,867	10,745	14,633	26,604	61,598	(D)	-
Value of shipments.....do....	237,999	2,237	2,946	5,711	21,176	18,001	24,472	48,113	115,343	(D)	-
Capital expenditures, new.....do....	2,738	31	31	26	298	222	432	375	1,323	(D)	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		Col. B	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(percent)	(\$1,000)	(\$1,000)	(\$1,000)	(percent)
		A	B	C	D	E	F	G	H	I
3911	Jewelry, precious metal.....1963..	481,943	387,312	32,070	62,561	92	400,376	387,312	13,064	97
	1958..	327,251	280,753	14,786	31,712	95	287,148	280,753	6,395	98
3912	Jewelers' findings and materials..1963..	72,833	62,582	5,797	4,454	92	70,476	62,582	7,894	89
	1958..	57,475	49,171	5,523	2,781	90	56,771	49,171	7,600	87
3913	Lapidary work.....1963..	65,094	55,167	4,225	5,702	93	67,718	55,167	12,551	81
	1958..	40,428	37,518	520	2,390	99	43,270	37,518	5,752	87
3914	Silverware and plated ware.....1963..	237,999	208,613	10,884	18,502	95	211,864	208,613	3,251	98
	1958..	196,055	174,882	10,165	11,008	95	178,765	174,882	3,883	98

note: See Introduction for an explanation of terms used.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)

miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Jewelry, precious metal (SIC 3911)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Lapidary work (SIC 3913)	Other industries
	JEWELRY, PRECIOUS METAL INDUSTRY					LAPIDARY WORK INDUSTRY			
	Total shipments and receipts of the industry.....	(X)	481,943	(X)		Total shipments and receipts of the industry.....	(X)	65,094	(X)
	Primary products.....	400,376	387,312	13,064	39130	Lapidary work and cutting and polishing diamonds.....	67,718	55,167	12,551
39111	Jewelry made of platinum metals and karat gold.....	286,265	279,558	16,707		Secondary products.....	(X)	4,225	(X)
39112	Jewelry made of precious metals, except platinum and karat gold..	93,691	87,393	26,298		Miscellaneous receipts.....	(X)	5,702	(X)
39110	Jewelry, precious metal, n.s.k...	20,420	20,361	59		Sales of product bought and resold without further manufacture.....	(X)	5,525	(X)
	Secondary products.....	(X)	32,070	(X)		Other miscellaneous receipts.....	(X)	177	(X)
39610	Costume jewelry.....	(X)	11,876	(X)			All industries	Silverware and plated ware (SIC 3914)	Other industries
	Other secondary products.....	(X)	20,194	(X)					
	Miscellaneous receipts.....	(X)	62,561	(X)		SILVERWARE AND PLATED WARE INDUSTRY			
	Contract and commission work....	(X)	6,068	(X)		Total shipments and receipts of the industry.....	(X)	237,999	(X)
	Sales of scrap.....	(X)	3,524	(X)		Primary products.....	211,864	208,613	3,251
	Sales of products bought and sold without further manufacture.....	(X)	50,048	(X)		Silverware, plated ware and stainless steel ware.....	93,876	90,801	3,075
	Other miscellaneous receipts.....	(X)	2,921	(X)		Flatware.....	113,196	113,020	176
		All industries	Jewelers' findings and materials (SIC 3912)	Other industries		Silverware and plated ware, n.s.k..	4,792	4,792	(X)
	JEWELERS' FINDINGS AND MATERIALS INDUSTRY				39141	Secondary products.....	(X)	410,884	(X)
	Total shipments and receipts of the industry.....	(X)	72,833	(X)	39142	Miscellaneous receipts.....	(X)	18,502	(X)
39120	Jewelers' findings and materials...	70,476	62,582	7,894	39140	Contract work.....	(X)	1,952	(X)
	Secondary products.....	(X)	5,797	(X)		Sales of products bought and resold without further manufacture.....	(X)	7,759	(X)
	Miscellaneous receipts.....	(X)	4,454	(X)		Other miscellaneous receipts.....	(X)	8,793	(X)
	Contract work.....	(X)	1,666	(X)					
	Sales or products bought and resold without further manufacture, processing, or assembly...	(X)	852	(X)					
	Miscellaneous receipts.....	(X)	1,936	(X)					

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

<sup>1</sup>The following industry had shipments which totaled \$2 million or more but is withheld to avoid disclosing figures for individual companies: 3871, Watches and Clocks.

<sup>2</sup>Includes \$4.4 million shipped by industry 3961, Costume Jewelry.

<sup>3</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 27530, Engraving and plate printing; and 39130, Lapidary work and diamond cutting and polishing.

<sup>4</sup>Includes the following product class which totaled \$2 million or more but is withheld to avoid disclosing individual company figures: 34211, Cutlery, scissors, shears, trimmers and snips.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958**

Product code	Product	Value of shipments including interplant transfers (\$1,000)	
		1963	1958
3911- --	JEWELRY, PRECIOUS METAL, TOTAL.....	400,376	287,148
39111 --	Jewelry made of platinum metals and karat gold, total.....	286,265	195,234
	Rings and ring mountings:		
	Rings (complete):		
39111 12	Wedding rings.....	37,489	28,380
39111 13	Other rings.....	102,896	56,788
39111 15	Rings mountings, for sale separately.....	20,949	21,752
39111 31	Women's and children's jewelry, such as necklaces, bracelets, brooches, pins, clips, earrings, lockets, etc. (excluding watch attachments).....	55,963	39,839
39111 41	Watch attachments (bracelets for watches).....	10,291	6,020
39111 51	Organizational jewelry, including fraternal, college and school jewelry and emblems, military insignias, (excluding rings).....	14,764	9,082
39111 98	Other jewelry worn or carried about the person, such as men's jewelry (collar and cuff buttons, studs, watch chains, etc.); religious jewelry (rosaries, chaplets, crosses, etc.); cigar and cigarette cases and lighters, compacts, vanity cases, etc.....	24,055	12,475
39111 00	Jewelry made of platinum metals and karat gold, n.s.k.....	19,858	20,898
39112 --	Jewelry made of precious metals, except platinum metals, and karat gold, total.....	93,691	74,265
	Jewelry made of gold filled, rolled gold plate, palladium filled, rolled palladium plate, and sterling silver:		
39112 11	Rings and ring mountings.....	7,118	5,604
39112 21	Men's jewelry, such as collar and cuff buttons, studs, watch chains, money clips, identification bracelets, scarf pins, tie and collar holders, etc. (excluding watch attachments).....	6,901	7,037
39112 31	Women's and children's jewelry, such as necklaces, bracelets, brooches, pins, clips, earrings, lockets, etc. (excluding watch attachments).....	23,171	21,723
39112 41	Watch attachments (bracelets for watches).....	27,620	24,844
39112 98	Other jewelry worn or carried about the person, such as fraternal, college and school jewelry and emblems, excluding rings; military insignia; religious jewelry (rosaries, chaplets, crosses, etc.); cigar and cigarette cases and lighters; compacts, vanity cases, etc.....	21,077	9,855
39112 00	Jewelry made of precious metals, except platinum metals, and karat gold, n.s.k.....	7,804	5,202
39110 00	Jewelry (precious metal), n.s.k.....	20,420	17,649
3912- --	JEWELERS' FINDINGS AND MATERIALS, TOTAL.....	70,476	56,771
39120 11	Jewelers' findings, such as joints, pins, clasps, spring rings, ring blanks, and other unassembled parts.....	36,508	24,027
39120 31	Machine chain.....	13,175	10,900
39120 51	Stock shop products, such as flat stock, wire, and tubing.....	14,592	12,683
39120 00	Jewelers' findings and materials, n.s.k.....	6,201	9,161
3913- --	LAPIDARY WORK AND CUTTING AND POLISHING DIAMONDS, TOTAL.....	167,718	143,270
	Stones cut or polished from materials owned by the manufacturing establishment, excluding the setting of stones in jewelry:		
39130 11	Diamonds for jewelry purposes.....	36,246	20,840
39130 15	Diamonds for industrial purposes.....	12,041	4,858
39130 31	Other natural precious and semiprecious stones and synthetic stones, including the drilling of pearls	4,711	2,532
39130 00	Lapidary work and cutting and polishing diamonds, n.s.k.....	114,720	115,040

See footnotes at end of table.

TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (1,000 pieces)	Value (\$1,000)	Quantity (1,000 pieces)	Value (\$1,000)
3914- --	SILVERWARE AND PLATED WARE, TOTAL.....	(X)	211,864	(X)	178,765
39141 --	Silverware, plated ware, and stainless steel ware.....	(X)	93,876	(X)	74,288
	Hollow ware (including toilet ware, ecclesiastical ware, novelties, trophies, baby goods, and other plated ware):				
39141 11	Sterling silver.....	(X)	20,723	(X)	19,554
39141 31	Electrosilver plated.....	(X)	37,627	(X)	31,206
39141 51	Stainless steel.....	(X)	4,272	(X)	2,401
39141 61	Unplated hollow ware of other metals and hollow ware plated with metals other than silver.....	(X)	29,474	(X)	21,127
39141 00	Silverware, plated ware, and stainless steelware, n.s.k.....	(X)	1,780	(X)	-
39142 --	Flatware (including all knives, forks, spoons, and carving sets made wholly of metal).....	(X)	113,196	(X)	97,075
39142 11	Sterling silver.....	9,718	38,485	11,737	37,356
	Electrosilver plated:				
39142 31	Hotel patterns.....	58,601	23,389	72,947	27,559
39142 35	Commercial patterns.....				
	Stainless steel:				
39142 53	Hotel patterns.....	58,698	9,378	146,132	31,189
39142 55	Commercial patterns.....	196,377	40,447		
39142 61	Unplated flatware of other metals and flatware plated with metals other than silver.....	(X)	1,147	(X)	971
39142 00	Flatware, n.s.k.....	(X)	350	(X)	-
39140 00	Silverware and plated ware, n.s.k.....	(X)	4,792	(X)	7,402

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

<sup>1</sup>Includes lapidary work done on materials owned by others for which type of stone was not reported.

TABLE 6B. **Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

(not applicable to this report)



TABLE 6C. **Product Classes—Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3911-	Jewelry, precious metal.....	400,376	340,532	317,202	302,995	295,547	287,148	238,526	231,453
39111	Jewelry made of platinum metals and karat gold.....	286,265	229,257	214,592	203,987	202,046	195,234	155,476	133,254
39112	Jewelry made of precious metals, except platinum and karat gold.....	93,691	91,654	85,639	81,740	77,505	74,265	72,635	81,539
39110	Jewelry, precious metals, n.s.k.....	20,420	(19,621)	(16,971)	(17,268)	(15,996)	17,649	10,415	16,660
39120	Jewelers' findings and materials.....	70,476	80,252	73,925	71,779	65,435	56,771	68,092	71,260
39130	Lapidary work.....	67,718	48,487	48,329	46,000	52,068	43,270	35,641	30,138
3914-	Silverware and plated ware.....	211,864	215,404	207,295	203,634	199,695	178,765	188,095	220,407
39141	Silverware, plated ware, and stainless steel ware.....	93,876	85,171	85,098	83,583	80,228	74,288	188,095	220,407
39142	Flatware.....	113,196	122,241	113,490	111,541	112,143	97,075		
39140	Silverware and plated ware, n.s.k.....	4,792	(7,992)	(8,707)	(8,510)	(7,324)	7,402		

n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

TABLE 6D. **Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
JEWELRY MADE OF PLATINUM METALS AND KARAT GOLD (39111)			JEWELRY MADE OF PRECIOUS METAL, EXCEPT PLATINUM METALS AND KARAT GOLD (39112)			SILVERWARE, PLATED WARE, AND STAINLESS STEEL WARE (39141)—Continued		
United States, total.....	286,265	195,234	United States, total.....	93,691	74,265	New England.....	52,710	( <sup>2</sup> )
New England.....	39,637	25,429	New England.....	55,897	( <sup>2</sup> )	Massachusetts.....	24,242	17,420
Massachusetts.....	26,639	16,535	Massachusetts.....	18,280	11,991	Middle Atlantic.....	27,377	( <sup>2</sup> )
Middle Atlantic.....	189,071	129,467	Rhode Island.....	37,451	26,878	New York.....	19,937	17,375
New York.....	163,591	110,046	Middle Atlantic.....	31,425	( <sup>2</sup> )	New Jersey.....	5,240	6,743
New Jersey.....	21,098	16,196	New York.....	18,830	15,891	Pennsylvania.....	2,200	( <sup>2</sup> )
Pennsylvania.....	4,382	3,225	New Jersey.....	11,773	12,014	North Central.....	9,257	( <sup>2</sup> )
East North Central.....	27,253	( <sup>2</sup> )	North Central and South.....	2,821	( <sup>2</sup> )	Illinois.....	6,667	5,107
Illinois.....	8,699	6,476	Mountain.....	2,000	( <sup>2</sup> )	South.....	1,888	( <sup>2</sup> )
Michigan.....	5,790	2,709	Pacific.....	1,548	( <sup>2</sup> )	West.....	2,644	( <sup>2</sup> )
West North Central.....	9,092	( <sup>2</sup> )	California.....	1,184	1,333	FLATWARE (39142)		
South.....	4,029	( <sup>2</sup> )	SILVERWARE, PLATED WARE, AND STAINLESS STEEL WARE (39141)			United States, total.....	113,196	97,075
West.....	17,183	( <sup>2</sup> )	United States, total.....	93,876	74,288	New England.....	78,556	( <sup>2</sup> )
California.....	14,404	8,987				Connecticut.....	45,772	41,863
						Middle Atlantic.....	30,137	( <sup>2</sup> )
						South Atlantic.....	2,513	( <sup>2</sup> )
						Pacific.....	1,740	( <sup>2</sup> )
						All other divisions.....	4,112	( <sup>2</sup> )

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 39111, Rhode Island, Ohio, Indiana, Minnesota, Oklahoma, Texas, Utah; 39141, Rhode Island, Connecticut, Ohio, California; 39142, Massachusetts, Rhode Island, New York, Illinois, Maryland, Oregon.

<sup>2</sup>Shipments of over \$1 million were reported but exact figures are withheld to avoid disclosure of individual company figures.

TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 3914.—SILVERWARE AND PLATED WARE			
	Materials, components, parts, containers, and supplies, total..	.....	(X)	97,453	(X)	77,700
	Mill shapes and forms:					
331001	Carbon steel.....	Short tons.....	1,361	286	(NA)	1,081
331020	Alloy steel.....	.....do.....	20,583	17,484	(NA)	156
331031	Stainless steel.....	.....do.....			9,021	8,980
335208	Aluminum and aluminum-base alloy.....	1,000 lbs.....	(D)	(D)	(NA)	(NA)
335003	Copper and copper-base alloy.....	.....do.....	20,497	13,415	8,341	5,535
	Castings rough and semi-finished:					
336100	Aluminum and aluminum-base alloy <sup>1</sup> .....	.....	(D)	(D)	(NA)	(NA)
336200	Copper and copper-base alloy <sup>1</sup> .....	1,000 lbs.....	637	446	795	518
333903	Precious metals all forms (including ingot, sheet, strip, solder, plating, electrodes, etc.).....	.....	(X)	24,520	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	34,384	(X)	55,562
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....	.....	(X)	6,918	(X)	5,868

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

<sup>1</sup>Does not include castings produced and consumed in the same establishment.

<sup>2</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."



TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

Item	Jewelry, precious metal (SIC 3911)	Jewelers' findings and materials (SIC 3912)	Lapidary work (SIC 3913)	Silverware and plated ware (SIC 3914)
Total cost of purchased fuels and electric energy.....\$1,000..	1,471	689	142	2,546
Total cost of purchased fuels.....do....	459	213	72	1,155
Bituminous coal, lignite, and anthracite:				
Quantity.....1,000 short tons..	(S)	-	-	(S)
Cost.....\$1,000..	(S)	-	-	(S)
Coke and breeze:				
Quantity.....1,000 short tons..	-	-	-	-
Cost.....\$1,000..	-	-	-	-
Fuel oil (distillate and residual):				
Quantity.....1,000 barrels of 42' gallons..	36	(S)	(S)	229
Cost.....\$1,000..	137	(S)	(S)	584
Gas (natural, manufactured, still, blast furnace, and coke oven):				
Quantity.....million cu.ft..	143	(S)	(S)	346
Cost.....\$1,000..	113	(S)	(S)	351
Other fuels.....do....	207	32	(S)	(S)
Electric energy:				
Purchased:				
Quantity.....million kw.-hrs..	49	26	4	95
Cost.....\$1,000..	1,012	476	70	1,391
Generated less sold.....million kw.-hrs..	-	-	-	16
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	29	18	-	68
Prime movers, total.....do....	(Z)	(Z)	-	11
Driving generators.....do....	(Z)	(Z)	-	9
Not driving generators.....do....	-	(Z)	-	2
Electric motors, total.....do....	29	18	-	58
Driven by purchased energy.....do....	29	18	-	57
Driven by energy generated at establishment.....do....	-	-	-	1
Aggregate horsepower per 100 production workers.....	180	393	-	590

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3911	JEWELRY, PRECIOUS METAL										
	Entire industry.....	1,438	23,551	125,610	17,455	35,601	79,251	234,925	248,405	481,943	3,676
	Establishments with—										
	90% or more specialization..	1,300	18,774	102,642	13,750	28,333	64,548	180,152	175,553	357,465	2,686
	75-89% specialization.....	41	1,656	7,227	1,389	2,777	5,319	21,127	10,405	31,602	434
39111	Jewelry made of platinum metals and karat gold (primary product class of estab.).....	864	15,055	87,135	10,618	21,832	52,900	159,980	194,707	352,216	1,936
	Establishments with—										
	90% or more specialization....	755	9,575	54,034	6,995	13,753	35,237	98,650	113,069	212,218	1,284
	75-89% specialization.....	51	3,483	22,843	2,219	5,254	11,741	35,996	21,100	57,710	348
39112	Jewelry made of precious metals except platinum metals and karat gold (primary product class of estab.).....	228	7,149	32,390	5,824	11,575	21,786	63,595	38,283	102,253	1,474
	Establishments with—										
	90% or more specialization....	154	3,202	14,400	2,552	5,236	9,420	25,421	19,087	44,642	737
	75-89% specialization.....	20	1,463	6,450	1,236	2,458	4,542	19,544	8,681	28,330	360
3914	SILVERWARE AND PLATED WARE										
	Entire industry.....	209	13,249	70,924	10,888	22,140	54,775	130,735	108,895	237,999	2,738
	Establishments with—										
	90% or more specialization..	185	11,100	60,043	9,272	18,830	46,941	108,743	90,822	198,631	2,235
39141	Silverware, plated ware, and stainless steel ware (primary product class of estab.).....	108	4,732	24,284	4,024	8,183	18,896	43,860	31,828	74,370	875
	Establishments with—										
	90% or more specialization....	94	4,025	20,837	3,439	7,074	16,318	37,796	27,000	63,473	653
39142	Flatware (primary product class of estab.).....	36	8,108	44,868	6,534	13,308	34,495	83,925	74,733	158,147	1,793
	Establishments with—										
	90% or more specialization....	20	2,602	14,418	2,333	4,830	12,696	23,774	25,411	49,821	435





## MUSICAL INSTRUMENTS AND PARTS; TOYS, AND SPORTING AND ATHLETIC GOODS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3931—Musical Instruments and Parts
- 3941—Games and Toys, Except Dolls and Children's Vehicles
- 3942—Dolls
- 3943—Children's Vehicles, Except Bicycles
- 3949—Sporting and Athletic Goods, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3931—MUSICAL INSTRUMENTS AND PARTS

This industry comprises establishments primarily engaged in manufacturing pianos, with or without player attachments; organs; other musical instruments; and parts and materials for musical instruments. For a detailed list of products of industry 3931, refer to table 6A, product codes 3931111 to 3931498.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Musical Instruments and Parts Industry totaled \$314 million. This amount included shipments of musical instruments and parts (primary products) valued at \$294 million, shipments of other products (secondary products) valued at \$8 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$13 million.

This industry's shipments of musical instruments and parts represented 97 percent of its total product shipments. The industry specialization ratio in 1958 was 98 percent.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 31 percent of the total industry shipments are represented by plants specializing in organs; 30 percent in pianos; and 28 percent in other musical instruments.



Shipments of musical instruments and parts by this industry represented 92 percent of all shipments of these products (\$319 million) by all industries. In 1958 the coverage ratio was 91 percent.

The production index for the primary products of the industry increased to 190 in 1963 from the 1958 level of 141. The unit value index for 1963 was 99 compared to 102 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3941—GAMES AND TOYS, EXCEPT DOLLS AND CHILDREN'S VEHICLES

This industry comprises establishments primarily engaged in indoor games and game sets for adults and children, and mechanical and nonmechanical toys. Important products of this industry include games such as chess, checkers, dominoes, puzzles, and other indoor games; and toys, such as toy furniture, doll carriages and carts, construction sets, mechanical trains, toy guns and air rifles, and other mechanical games and toys. Establishments primarily engaged in manufacturing dolls are classified in industry 3942; children's outdoor wheel goods and vehicles, except bicycles, in industry 3943; and sporting and athletic goods for children and adults, in industry 3949. For a detailed list of products of industry 3941, refer to table 6A, product codes 3941011 to 3941097.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Games and Toys Industry totaled \$797 million. This amount included shipments of games and toys (primary products) valued at \$694 million, shipments of other products (secondary products) valued at \$62 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$41 million.

This industry's shipments of toys and games represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent. Secondary products shipped by this industry in 1963 include miscellaneous plastic products (\$10 million) and baby carriages and children's vehicles (\$3 million).

Shipments of games and toys by this industry represented 91 percent of all shipments of these products (\$764 million) by all industries. In 1958 the coverage ratio was 92 percent. Other industries shipping games and toys include industry 3079, Plastics Products, N.E.C., \$18 million; and industry 3943, Children's Vehicles, \$4 million.

#### 3942—DOLLS

This industry comprises establishments primarily engaged in manufacturing dolls, doll parts, and doll clothing. Establishments primarily engaged in manufacturing stuffed toy animals are also included in this industry. For a detailed list of products of industry 3942, refer to table 6A, product codes 3942006 to 3942055.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Dolls Industry totaled \$248 million. This amount includes shipments of dolls (primary products) valued at \$165 million.

This industry's shipments of dolls represented between 80 and 85 percent of its total product shipments. The industry specialization ratio in 1958 was 98 percent.

Shipments of dolls by this industry represented 87 percent of all shipments of these products (\$190 million) by all industries. In 1958 the coverage ratio was 94 percent.

The production index for the primary products of the industry increased to 124 in 1963 from the 1958 level of 113. The unit value index for 1963 was 119 compared to 109 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3943—CHILDREN'S VEHICLES, EXCEPT BICYCLES

This industry comprises establishments primarily engaged in manufacturing baby carriages, strollers, and gocarts; children's velocipedes and tricycles, coaster wagons, play cars, sleds, and other children's outdoor wheel goods and vehicles, except bicycles. For a detailed list of products of industry 3943, refer to table 6A, product codes 3943011 to 3943098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Children's Vehicles Industry totaled \$78 million. This amount included shipments of children's vehicles (primary products) valued at \$54 million, shipments of other products (secondary products) valued at \$22 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$1 million.

This industry's shipments of children's vehicles represented 71 percent of its total product shipments. The industry specialization ratio in 1958 was 84 percent. Secondary products shipped by this industry in 1963 include games and toys (\$4 million), and metal household furniture (\$2 million).

Shipments of children's vehicles by this industry represented 65 percent of all shipments of these products (\$83 million) by all industries. In 1958 the coverage ratio was 78 percent.

The production index for the primary products of the industry increased to 116 in 1963 from the 1958 level of 99. The unit value index for 1963 was 110 compared to 114 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3949—SPORTING AND ATHLETIC GOODS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing sporting and athletic goods, not elsewhere classified, such as fishing tackle; golf and tennis goods; baseball, football, basketball, and boxing equipment; roller skates and ice skates; gymnasium and playground equipment; billard and pool tables; and bowling alleys and equipment. Establishments primarily engaged in manufacturing athletic apparel are classified in Major Group 23, small arms ammunition in industry 1961, and firearms in industry 1951. For a detailed list of products of industry 3949, refer to table 6A, product codes 3949114 to 3949298.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Sporting and Athletic Goods Industry totaled \$705 million. This amount included shipments of sporting and athletic goods (primary products) valued at \$598 million. Shipments of other products (secondary products) valued at \$47 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$60 million.

This industry's shipments of sporting and athletic goods represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 88 percent. Secondary products shipped by this industry in 1963 included miscellaneous plastic products (\$3 million).

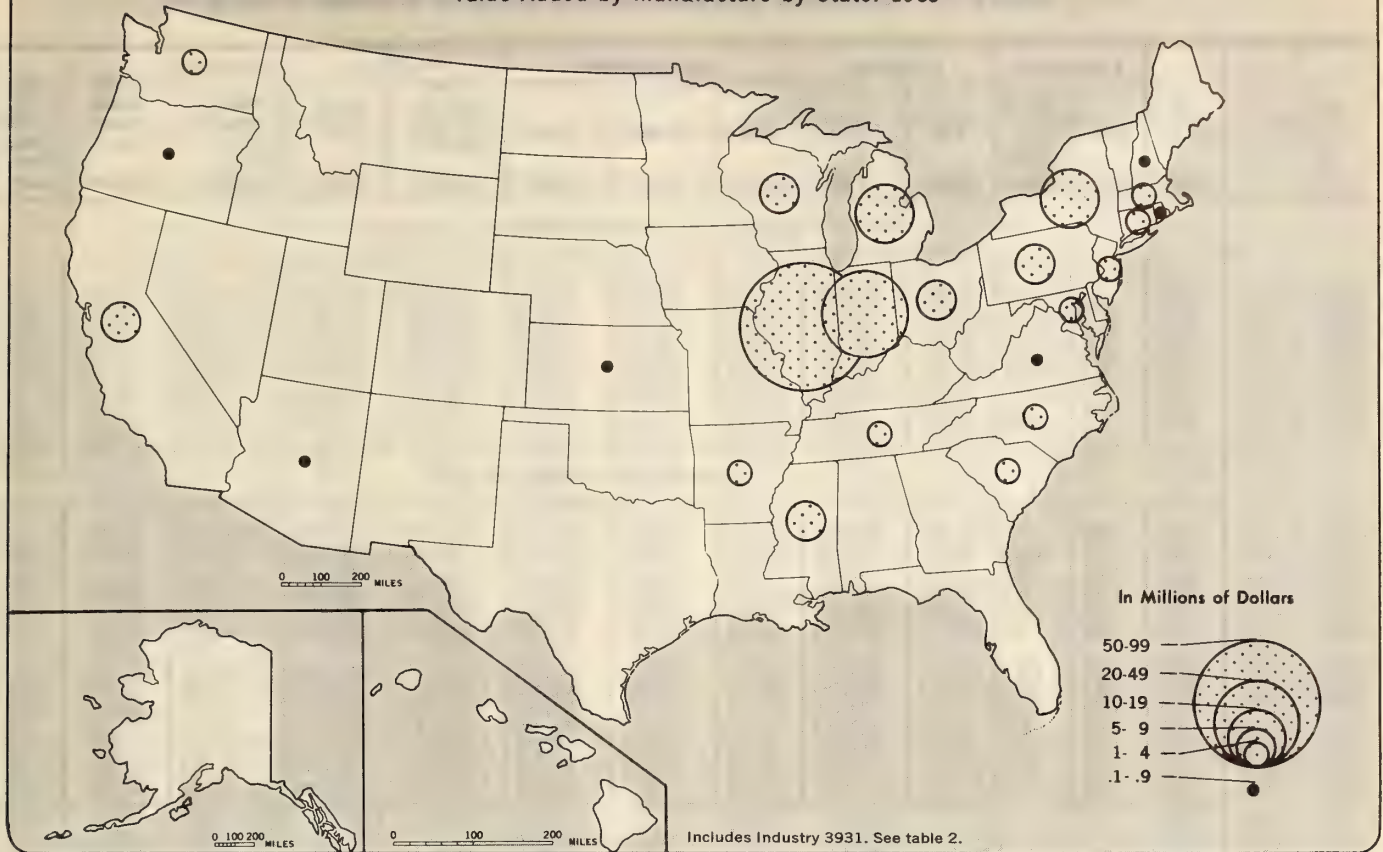


Shipments of sporting and athletic goods by this industry represented 91 percent of all shipments of these products (\$656 million) by all industries. In 1958 the coverage ratio was also 91 percent. Other industries shipping sporting and athletic goods includes industry 3069, Rubber Products, N.E.C., \$15 million.

The production index for the primary products of the industry increased to 196 in 1963 from the 1958 level of 158. The unit value index for 1963 was 110 compared to 109 in 1958. Both indexes were computed on a basis of 1954 = 100.

# MUSICAL INSTRUMENTS AND PARTS: SIC 393

Value Added by Manufacture by State: 1963

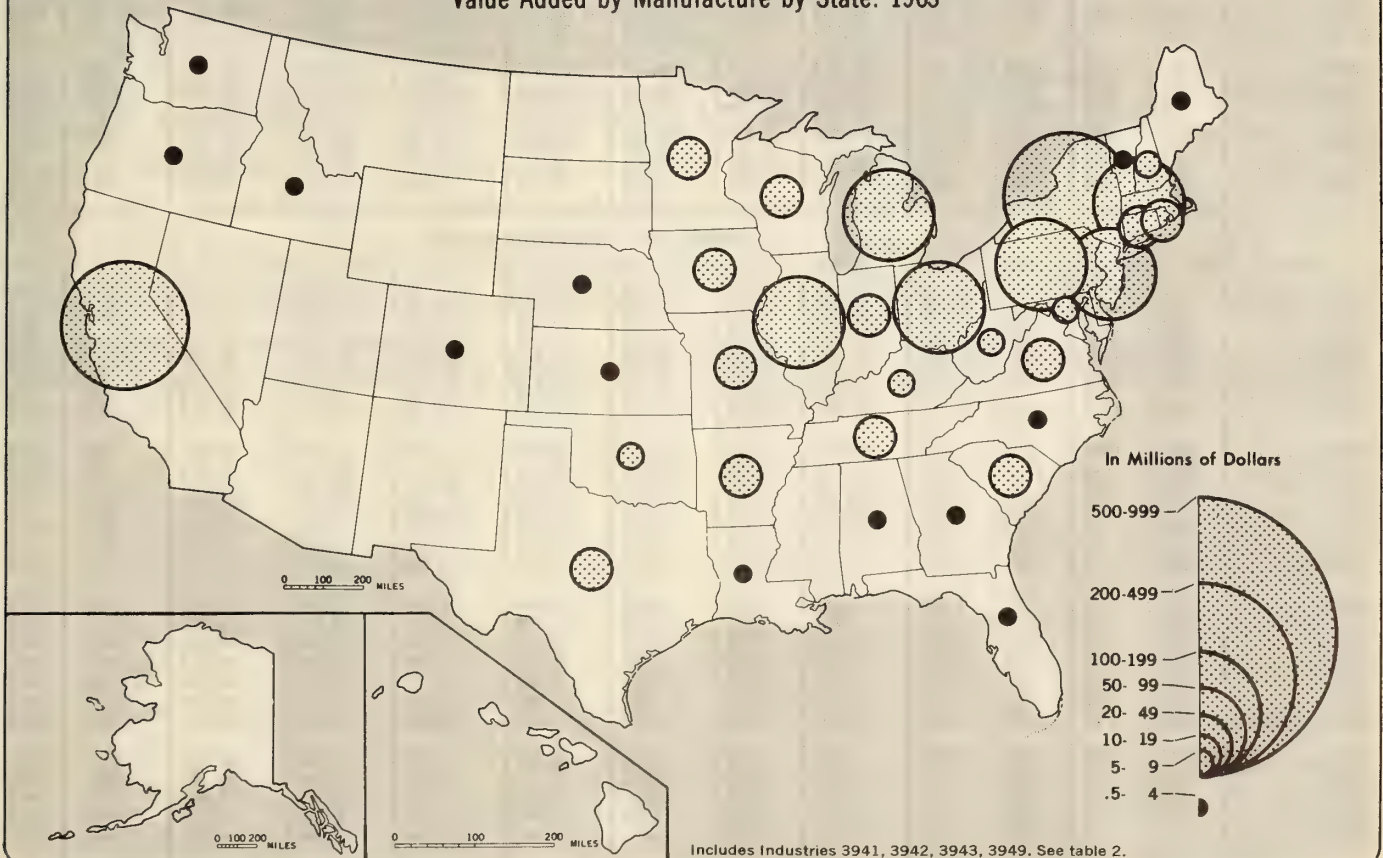


U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

# TOYS AND SPORTING GOODS: SIC 394

Value Added by Manufacture by State: 1963



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS



TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new  (\$1,000)	Spec- ial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3931.—MUSICAL INSTRUMENTS AND PARTS														
1963.....	288	320	126	20,095	103,029	16,664	33,600	76,471	179,035	143,136	314,407	5,779	97	92
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,828	100,992	17,089	33,738	74,542	144,910	153,547	293,127	3,940	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,403	91,370	15,698	30,575	66,210	133,136	144,843	276,963	3,706	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,206	93,719	16,489	32,087	69,939	132,784	145,941	274,584	4,230	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,631	88,250	15,382	30,541	66,525	154,908	150,765	297,044	(4,931)	(NA)	(NA)
1958.....	252	273	116	16,103	74,650	13,090	25,568	55,793	120,935	114,336	236,750	4,561	98	91
1954.....	(NA)	242	111	15,406	61,218	13,229	26,327	48,240	94,213	79,502	173,385	1,922	96	96
1947 <sup>2</sup> .....	(NA)	260	(NA)	16,889	46,808	14,814	31,269	38,198	71,356	48,179	118,689	2,445	(NA)	(NA)
INDUSTRY 3941.—GAMES AND TOYS														
1963.....	767	797	351	51,835	206,744	44,031	84,425	145,243	444,101	362,235	796,631	27,728	92	91
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	47,956	185,629	39,279	77,689	129,260	406,076	325,630	715,015	18,082	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	50,395	183,266	41,370	78,156	126,003	411,339	336,063	736,507	14,863	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	45,697	164,022	37,569	72,385	113,204	342,536	302,002	635,322	14,675	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	45,358	159,171	37,049	69,753	110,848	308,411	284,256	595,306	(18,047)	(NA)	(NA)
1958.....	832	854	367	42,972	149,725	35,999	68,007	106,577	288,863	258,215	544,056	16,513	93	92
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	43,540	138,585	37,508	65,296	103,961	238,695	210,349	448,940	(S)	93	88
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	44,748	140,593	38,578	69,663	104,433	252,389	221,810	469,131	13,221	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	43,809	130,660	37,326	67,474	95,162	247,798	214,079	456,064	10,648	(NA)	(NA)
1954.....	872	886	308	38,242	113,208	32,789	60,813	83,227	206,706	180,870	391,323	8,358	95	89
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	41,639	117,082	36,062	64,663	89,617	190,535	168,573	359,108	(NA)	(NA)	(NA)
1947.....	830	837	(NA)	27,140	60,554	24,174	47,093	47,403	105,414	76,525	181,939	(NA)	92	90
1939 <sup>2</sup> .....	(NA)	294	(NA)	(NA)	(NA)	13,778	(NA)	11,098	27,364	21,744	49,108	(NA)	(NA)	(NA)
INDUSTRY 3942.—DOLLS														
1963.....	404	410	160	16,213	58,991	13,934	24,361	41,751	138,100	114,418	247,942	6,276	80-85	87
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,335	62,325	16,932	28,534	46,707	148,864	130,770	273,577	9,510	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,227	51,115	15,543	24,521	36,948	97,278	98,094	194,685	2,178	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	14,704	47,084	12,947	23,209	34,639	85,775	94,323	178,302	(2,101)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	14,219	43,789	12,483	22,686	33,161	82,088	85,639	168,225	(2,882)	(NA)	(NA)
1958.....	482	485	162	13,860	43,984	12,196	22,709	33,877	77,149	85,094	161,924	5,469	98	94
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,657	59,783	18,550	37,119	46,560	100,248	102,791	203,141	(S)	92	94
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	19,761	54,589	17,694	34,592	43,452	103,104	101,946	201,799	2,523	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,541	44,081	15,071	27,975	35,256	75,037	84,769	158,820	2,658	(NA)	(NA)
1954.....	484	484	165	15,119	38,938	13,792	24,618	30,657	66,351	78,489	145,210	2,247	92	97
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,061	44,634	15,718	27,981	35,330	70,509	101,330	171,839	(NA)	(NA)	(NA)
1947.....	374	377	(NA)	9,797	21,847	8,886	17,386	17,739	37,577	32,209	69,786	(NA)	89	98
1939 <sup>2</sup> .....	(NA)	136	(NA)	(NA)	(NA)	4,890	(NA)	4,405	8,874	9,608	18,482	(NA)	(NA)	(NA)
INDUSTRY 3943.—CHILDREN'S VEHICLES														
1963.....	60	64	31	4,542	19,436	3,796	7,595	14,275	35,304	41,609	77,507	1,858	71	65
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	4,386	19,241	3,717	8,222	14,576	31,824	43,832	75,550	1,327	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	4,321	19,888	3,668	8,113	15,442	31,250	36,726	67,354	2,547	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	4,846	21,442	4,118	8,532	16,655	33,968	41,469	75,191	1,222	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,022	22,023	4,272	8,341	17,175	34,031	45,463	78,742	(1,807)	(NA)	(NA)
1958.....	56	58	33	4,708	19,625	3,946	7,712	14,932	31,727	38,461	70,438	831	84	78
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,458	24,893	5,274	9,363	17,823	37,489	43,454	81,449	863	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,643	26,283	5,521	10,014	19,099	41,693	45,238	85,266	938	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,707	26,482	5,522	10,451	19,149	38,580	43,515	81,652	987	(NA)	(NA)
1954.....	58	60	37	6,278	24,308	5,454	10,553	19,354	35,461	40,629	77,213	1,325	76	90
1947.....	119	120	(NA)	8,783	24,735	7,773	15,972	19,423	44,204	41,627	85,831	(NA)	81	79
1939.....	(NA)	44	(NA)	4,952	6,172	4,319	(NA)	4,713	9,177	9,940	19,117	(NA)	(NA)	(NA)
1937.....	(NA)	54	(NA)	5,731	6,537	5,218	(NA)	5,415	9,695	9,960	19,655	(NA)	(NA)	(NA)
1935.....	(NA)	55	(NA)	5,456	5,411	4,918	(NA)	4,360	8,079	7,432	15,511	(NA)	(NA)	(NA)
1933.....	(NA)	46	(NA)	4,280	3,290	3,971	(NA)	2,877	5,314	5,671	10,985	(NA)	(NA)	(NA)
1931.....	(NA)	59	(NA)	(NA)	(NA)	4,159	(NA)	4,479	9,678	7,091	16,769	(NA)	(NA)	(NA)
1929.....	(NA)	79	(NA)	7,894	10,274	7,102	(NA)	8,313	15,303	13,515	28,818	(NA)	(NA)	(NA)
1927.....	(NA)	89	(NA)	7,788	9,571	7,030	(NA)	7,814	14,773	13,895	28,668	(NA)	(NA)	(NA)
1925.....	(NA)	86	(NA)	7,706	9,659	6,926	(NA)	7,923	16,621	13,553	30,174	(NA)	(NA)	(NA)
1923.....	(NA)	100	(NA)	9,174	10,557	8,324	(NA)	8,856	18,237	15,936	34,173	(NA)	(NA)	(NA)
1921.....	(NA)	89	(NA)	6,156	6,996	5,460	(NA)	5,578	12,200	9,517	21,717	(NA)	(NA)	(NA)
1919.....	(NA)	103	(NA)	7,448	7,973	6,686	(NA)	6,229	12,807	11,700	24,507	(NA)	(NA)	(NA)
1914.....	(NA)	92	(NA)	6,434	3,927	5,900	(NA)	3,181	6,070	5,682	11,752	(NA)	(NA)	(NA)
1909.....	(NA)	84	(NA)	5,719	2,707	5,300	(NA)	2,217	4,676	4,129	8,805	(NA)	(NA)	(NA)
1904.....	(NA)	78	(NA)	4,327	2,124	4,003	(NA)	1,783	3,531	2,840	6,371	(NA)	(NA)	(NA)
1899.....	(NA)	77	(NA)	2,898	1,249	2,726	(NA)	1,090	2,294	1,996	4,290	(NA)	(NA)	(NA)

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expend- itures, new	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total	With 20 employ- ees or more (number)	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(per- cent)	(per- cent)
	INDUSTRY 3949.—SPORTING AND ATHLETIC GOODS													
1963.....	1,361	1,419	345	40,543	175,777	32,514	62,703	123,306	360,980	345,968	704,718	15,289	93	91
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	36,724	165,020	29,427	56,892	107,087	358,578	345,731	697,790	18,709	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	38,714	162,128	31,106	58,500	107,788	369,700	378,749	773,471	15,150	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	39,941	167,999	31,889	60,635	110,330	384,193	368,375	726,761	(12,833)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	38,043	161,026	31,310	61,647	110,394	332,208	329,660	649,494	(17,527)	(NA)	(NA)
1958.....	1,169	1,210	302	37,164	148,477	29,735	57,370	104,342	314,059	269,509	577,815	15,106	88	91
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	30,609	110,285	25,008	48,296	81,054	230,728	166,693	389,497	5,222	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	32,363	106,416	27,301	51,415	80,478	214,296	160,795	361,592	7,997	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	28,634	92,235	24,141	46,082	68,914	174,429	131,716	303,536	7,877	(NA)	(NA)
1954.....	1,007	1,031	254	28,919	89,681	24,439	46,101	66,087	159,852	146,961	308,824	5,662	90	86
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	26,622	78,829	22,936	42,161	60,215	140,323	105,953	246,276	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	25,703	71,469	22,927	45,075	56,593	127,517	117,170	244,687	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,954	65,501	22,178	43,310	50,741	125,256	101,208	226,464	(NA)	(NA)	(NA)
1947.....	843	863	228	29,756	66,675	26,381	51,990	53,768	107,449	94,854	202,303	7,351	94	90
1939.....	(NA)	350	(NA)	16,633	19,813	13,816	(NA)	14,221	38,064	26,690	64,754	(NA)	(NA)	(NA)
1937 <sup>3</sup> .....	(NA)	247	(NA)	(NA)	(NA)	12,178	(NA)	12,542	27,519	24,555	52,074	(NA)	(NA)	(NA)
1935.....	(NA)	213	(NA)	11,667	12,421	9,979	(NA)	9,308	20,229	17,780	38,009	(NA)	(NA)	(NA)
1933.....	(NA)	193	(NA)	9,859	8,604	8,622	(NA)	6,751	15,306	11,084	26,390	(NA)	(NA)	(NA)
1931.....	(NA)	249	(NA)	(NA)	(NA)	10,768	(NA)	11,832	31,525	21,494	53,019	(NA)	(NA)	(NA)
1929.....	(NA)	282	(NA)	14,227	19,958	12,183	(NA)	14,998	39,389	27,721	67,110	(NA)	(NA)	(NA)
1927.....	(NA)	222	(NA)	12,630	17,078	10,873	(NA)	13,145	30,267	21,788	52,055	(NA)	(NA)	(NA)
1925.....	(NA)	214	(NA)	11,120	15,034	9,761	(NA)	11,616	28,589	19,655	48,244	(NA)	(NA)	(NA)
1923.....	(NA)	202	(NA)	12,185	15,106	10,559	(NA)	11,841	27,312	20,721	48,033	(NA)	(NA)	(NA)
1921.....	(NA)	188	(NA)	9,227	11,017	7,988	(NA)	8,457	20,400	18,779	39,179	(NA)	(NA)	(NA)
1919.....	(NA)	237	(NA)	9,631	10,055	8,513	(NA)	8,178	21,503	18,070	39,573	(NA)	(NA)	(NA)
1914.....	(NA)	216	(NA)	7,948	4,837	7,055	(NA)	3,755	8,689	9,440	18,129	(NA)	(NA)	(NA)
1909.....	(NA)	234	(NA)	7,566	4,145	7,049	(NA)	3,176	7,997	8,933	16,930	(NA)	(NA)	(NA)
1904.....	(NA)	200	(NA)	5,533	2,612	5,056	(NA)	2,142	5,355	3,900	9,255	(NA)	(NA)	(NA)
1899.....	(NA)	217	(NA)	2,934	1,360	2,678	(NA)	1,088	2,746	2,531	5,277	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.  
(X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>No comparable figures are available for earlier years.

<sup>3</sup>The figures for 1937-1963 are not entirely comparable with those for earlier years because they include data for establishments primarily engaged in the manufacture of playground equipment. Value added by manufacture for 1937, excluding data for these establishments, amounted to \$26.3 million.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(number)	(\$1,000)
INDUSTRY 3931.—MUSICAL INSTRUMENTS AND PARTS													
Total.....	320	126	20,095	103,029	16,664	33,600	76,471	179,035	143,136	314,407	5,779	16,103	120,935
New England.....	27	9	825	4,641	659	1,361	3,233	7,268	3,241	10,270	151	1,313	8,345
Massachusetts....	18	5	317	1,773	258	524	1,280	2,975	995	3,832	84	371	2,230
Middle Atlantic....	81	30	3,386	16,940	2,848	5,563	12,994	26,641	21,177	47,499	1,553	3,068	23,733
New York.....	51	18	2,233	11,817	1,833	3,575	8,858	17,745	15,017	32,657	985	2,081	14,920
New Jersey.....	17	5	330	1,455	269	529	1,090	2,319	2,969	5,239	44	210	3,433
Pennsylvania.....	13	7	823	3,668	746	1,459	3,046	6,577	3,191	9,603	524	777	5,380
East North Central.	120	61	10,337	58,494	8,278	17,074	42,223	107,600	77,118	179,773	3,069	9,439	74,660
Ohio.....	18	9	1,102	6,504	996	2,047	5,681	7,440	4,860	13,222	387	2,491	13,024
Indiana.....	31	17	2,199	13,667	1,722	3,528	9,855	22,252	18,946	40,584	444	1,553	13,442
Illinois.....	46	23	4,951	27,173	3,729	7,814	17,419	56,543	39,364	93,388	1,833	3,905	37,747
Michigan.....	15	7	1,472	7,961	1,324	2,663	6,909	14,172	10,122	22,465	232	971	6,710
Wisconsin.....	10	5	613	3,189	507	1,022	2,359	7,193	3,826	10,114	173	519	3,737
West North Central.	7	1	120	778	99	206	500	1,039	375	1,426	13	154	1,086
South.....	34	15	4,213	15,775	3,756	7,469	12,543	27,242	33,866	59,486	700	1,471	8,364
Mountain.....	8	1	44	160	37	75	129	254	116	362	14	658	4,747
Pacific.....	43	9	1,170	6,241	987	1,852	4,849	8,991	7,243	15,591	279	515	3,715
California.....	36	7	950	5,065	803	1,502	3,951	6,919	5,542	11,894	245	515	3,715
INDUSTRY 3941.—GAMES AND TOYS													
Total.....	797	351	51,835	206,744	44,031	84,425	145,243	444,101	362,235	796,631	27,728	42,972	288,863
New England.....	82	36	6,429	26,067	5,150	9,614	16,868	65,073	32,240	95,131	2,727	5,998	40,780
New Hampshire....	10	4	784	2,572	679	1,372	2,240	5,173	2,299	7,253	(D)	997	5,640
Massachusetts....	37	20	2,487	10,502	1,992	3,788	6,354	35,160	16,046	51,485	654	2,410	17,404
Connecticut.....	20	7	1,421	6,925	1,024	1,924	3,886	11,506	6,139	15,385	1,044	1,417	9,981
Middle Atlantic....	343	170	25,969	100,849	22,307	42,869	71,527	209,178	186,861	392,750	14,817	19,595	126,873
New York.....	221	96	12,427	48,150	10,473	20,812	32,823	110,449	91,614	200,906	7,055	10,526	70,466
New Jersey.....	73	44	8,030	31,576	6,975	13,226	22,463	62,027	51,614	112,266	5,734	4,546	30,472
Pennsylvania.....	49	30	5,512	21,123	4,859	8,831	16,241	36,702	43,633	79,578	2,028	4,523	25,935
East North Central.	157	81	10,180	42,493	8,763	16,710	30,672	93,564	84,810	177,415	4,867	9,185	61,586
Illinois.....	72	39	4,090	17,360	3,633	6,854	13,140	37,165	40,348	76,344	2,088	(2)	(2)
West North Central.	34	14	1,651	7,141	1,417	2,649	5,096	16,425	11,259	26,836	2,114	1,600	10,185
Minnesota.....	11	5	1,031	4,507	928	1,724	3,211	10,215	7,233	16,686	1,720	893	5,291
Missouri.....	15	7	515	2,149	398	751	1,528	3,790	3,521	7,299	370	586	3,898
South Atlantic....	27	10	1,403	5,050	1,258	2,453	4,208	8,820	8,894	17,414	351	1,464	9,053
East South Central.	15	9	939	3,067	819	1,504	2,100	6,587	5,823	12,446	545	806	4,382
Tennessee.....	8	6	613	1,960	524	908	1,302	4,403	3,441	7,923	363	496	3,152
West South Central.	26	7	1,926	7,233	1,671	3,390	5,295	14,900	11,161	24,815	429	1,377	10,067
West.....	113	24	3,338	14,844	2,646	5,236	9,477	29,554	21,187	49,824	1,878	2,947	25,937
Oregon.....	4	3	248	730	226	377	572	1,700	1,447	3,166	102	(2)	(2)
California.....	93	21	3,037	13,945	2,374	4,769	8,760	27,399	19,473	45,943	1,747	2,757	24,968
INDUSTRY 3942.—DOLLS													
Total.....	410	160	16,213	58,991	13,934	24,361	41,751	138,100	114,418	247,942	6,276	13,860	77,149
New England.....	27	13	1,233	3,210	1,133	1,802	2,554	5,655	3,468	9,042	218	1,019	5,149
Middle Atlantic....	311	122	9,608	32,910	8,575	15,132	25,814	65,018	60,618	125,433	3,241	11,708	66,435
New York.....	286	109	8,362	27,822	7,503	12,855	21,921	57,674	54,744	112,138	2,784	9,614	54,321
New Jersey.....	12	6	658	3,173	525	1,300	2,190	4,133	3,742	8,010	359	1,571	9,252
Pennsylvania.....	13	7	588	1,915	547	977	1,703	3,211	2,132	5,285	98	523	2,862
North Central.....	20	8	757	2,032	643	1,126	1,651	3,082	2,775	5,924	301	299	1,358
South and West....	52	17	4,615	20,839	3,583	6,301	11,732	64,345	47,557	107,543	2,516	834	4,207
Georgia.....	6	5	437	1,474	391	728	1,112	2,210	1,825	4,052	63	380	2,243

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3943.—CHILDREN'S VEHICLES													
Total.....	64	31	4,542	19,436	3,796	7,595	14,275	35,304	41,609	77,507	1,858	4,708	31,727
New England.....	7	3	417	1,811	317	601	1,242	2,673	3,571	6,219	219	853	4,230
Middle Atlantic....	21	12	1,225	4,009	1,099	2,166	3,091	6,934	5,882	12,870	498	741	4,040
New York.....	13	7	795	2,834	715	1,358	2,157	4,894	4,016	8,943	451	( <sup>2</sup> )	( <sup>2</sup> )
North Central.....	21	11	2,311	10,991	1,926	3,918	8,297	20,440	25,611	46,386	918	2,539	18,771
South and West.....	15	5	589	2,625	454	910	1,645	5,257	6,545	12,032	223	575	4,686
INDUSTRY 3949.—SPORTING AND ATHLETIC GOODS													
Total.....	1,419	345	40,543	175,777	32,514	62,703	123,306	360,980	345,968	704,718	15,289	37,164	314,059
New England.....	100	35	5,364	23,159	4,200	7,987	16,791	49,534	37,753	82,389	1,443	4,937	28,311
Maine.....	12	4	404	1,289	336	663	981	2,248	1,829	3,969	42	643	2,816
Massachusetts....	44	17	3,755	16,560	2,845	5,344	11,605	37,942	26,984	60,498	1,027	3,037	18,878
Connecticut.....	27	9	828	3,765	709	1,371	3,086	6,261	5,798	11,622	314	880	4,428
Middle Atlantic....	248	69	6,289	25,926	5,337	10,458	18,919	44,392	58,167	102,652	2,204	8,636	86,328
New York.....	140	40	3,815	15,257	3,221	6,302	11,011	25,258	33,029	58,963	833	( <sup>2</sup> )	( <sup>2</sup> )
East North Central.	351	99	12,530	61,220	9,539	18,598	40,645	136,499	130,600	271,067	4,837	11,592	116,412
Ohio.....	60	17	3,685	18,562	2,782	5,338	12,779	25,601	30,623	57,319	1,345	4,024	28,683
Indiana.....	31	8	676	2,720	552	1,040	1,959	5,257	5,547	10,874	253	388	2,766
Illinois.....	98	30	3,183	15,879	2,413	4,713	10,827	29,560	46,259	76,336	1,496	2,463	36,839
Michigan.....	102	28	3,623	19,207	2,631	5,300	11,756	66,912	39,119	108,173	1,433	3,685	43,006
Wisconsin.....	60	16	1,363	4,852	1,161	2,207	3,324	9,169	9,052	18,365	310	1,032	5,118
West North Central.	138	40	3,739	14,058	3,117	5,973	10,639	25,609	30,502	56,421	866	3,075	18,704
Minnesota.....	48	14	934	3,902	809	1,680	3,111	8,315	8,863	17,187	187	582	4,764
Iowa.....	25	11	1,132	4,580	871	1,706	3,091	8,759	7,580	16,678	446	636	3,787
Missouri.....	37	10	1,462	4,762	1,263	2,257	3,823	7,170	12,817	19,953	174	1,727	9,320
South Atlantic.....	111	22	3,723	15,534	2,979	5,819	10,412	35,028	22,206	57,165	1,477	2,637	21,602
South Carolina...	8	5	972	3,757	816	1,651	2,659	8,337	4,506	12,261	448	368	2,158
Florida.....	61	8	678	1,960	606	1,128	1,601	3,553	3,356	6,961	126	430	2,316
East South Central.	57	14	1,793	7,000	1,573	2,797	5,596	11,510	13,052	24,579	479	1,538	10,576
Tennessee.....	25	9	1,047	3,204	956	1,595	2,943	5,503	6,876	12,309	407	798	4,041
West South Central.	109	19	2,592	8,939	2,148	4,038	6,454	20,321	19,927	39,067	629	1,501	7,887
Texas.....	65	12	960	3,372	749	1,301	2,107	6,757	6,991	13,578	238	360	2,716
Mountain.....	41	7	835	2,881	713	1,464	2,190	3,631	3,884	7,279	95	914	4,587
Colorado.....	18	5	567	2,033	479	1,031	1,538	2,251	2,801	4,794	51	630	3,293
Pacific.....	264	40	3,678	17,060	2,908	5,569	11,660	34,456	29,877	64,099	3,259	2,334	19,652
Washington.....	38	4	296	1,073	253	458	848	2,222	1,622	3,916	110	246	1,874
California.....	197	32	3,075	14,765	2,397	4,654	9,885	30,620	26,228	56,495	3,049	1,925	16,570

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.  
 SIC 3931, Musical Instruments and Parts: New England—New Hampshire, 1 (20-99); Vermont, 1 (1-19); Rhode Island, 2 (20-99); Connecticut, 5 (407); West North Central—Minnesota, 1 (1-19); Iowa, 3 (1-19); Nebraska, 1 (1-19); Kansas, 2 (20-99); South Atlantic—Maryland, 6 (458); Virginia, 2 (20-99); North Carolina, 5 (284); South Carolina, 1 (250-499); Florida, 5 (1-19); East South Central—Kentucky, 2 (1-19); Tennessee, 5 (500-999); Mississippi, 3 (1,000-2,499); West South Central—Arkansas, 2 (500-999); Louisiana, 1 (1-19); Texas, 2 (1-19); Mountain—Colorado, 3 (1-19); New Mexico, 1 (1-19); Arizona, 1 (20-99); Utah, 3 (1-19); Pacific—Washington, 4 (164); Oregon, 2 (20-99); Hawaii, 1 (1-19).  
 SIC 3941, Games and Toys: New England—Maine, 5 (20-99); Vermont, 3 (20-99); Rhode Island, 7 (1,647); East North Central—Ohio, 32 (2,737); Indiana, 10 (500-999); Michigan, 23 (1,665); Wisconsin, 20 (1,000-2,499); West North Central—Iowa, 3 (20-99); South Dakota, 1 (1-19); Nebraska, 1 (1-19); Kansas, 3 (1-19); South Atlantic—Maryland, 5 (250-499); Virginia, 1 (1-19); West Virginia, 6 (638); North Carolina, 6 (387); South Carolina, 1 (1-19); Georgia, 3 (1-19); Florida, 5 (20-99); East South Central—Kentucky, 2 (100-249); Alabama, 3 (100-249); Mississippi, 2 (1-19); West South Central—Arkansas, 2 (500-999); Louisiana, 2 (1-19); Oklahoma, 2 (1-19); Texas, 20 (500-999); Mountain—Montana, 1 (1-19); Colorado, 4 (20-99); Arizona, 1 (1-19); Nevada, 3 (20-99); Pacific—Washington, 7 (1-19).  
 SIC 3942, Dolls: New England—New Hampshire, 6 (100-249); Vermont, 2 (20-99); Massachusetts, 14 (500-999); Connecticut, 5 (100-249); East North Central—Ohio, 2 (20-99); Illinois, 2 (1-19); Michigan, 1 (1-19); Wisconsin, 1 (1-19); West North Central—Minnesota, 4 (100-249); Iowa, 3 (250-499); Missouri, 6 (100-249); South Atlantic—Maryland, 1 (1-19); North Carolina, 2 (20-99); South Carolina, 2 (250-499); Florida, 5 (20-99); East South Central—Tennessee, 5 (20-99); West South Central—Louisiana, 1 (1-19); Texas, 4 (20-99); Mountain—Montana, 1 (1-19); Pacific—Washington, 2 (1-19); Oregon, 1 (1-19); California, 21 (3,469); Hawaii, 1 (1-19).  
 SIC 3943, Children's Vehicles: New England—Massachusetts, 6 (250-499); Connecticut, 1 (1-19); Middle Atlantic—New Jersey, 2 (100-249); Pennsylvania, 6 (250-499); East North Central—Ohio, 3 (250-499); Indiana, 2 (20-99); Illinois, 4 (500-999); Michigan, 3 (100-249); Wisconsin, 3 (282); West North Central—Minnesota, 1 (20-99); Iowa, 2 (1-19); Missouri, 2 (250-499); Nebraska, 1 (1-19); South Atlantic—Maryland, 1 (1-19); Virginia, 1 (20-99); Georgia, 1 (1-19); East South Central—Alabama, 1 (100-249); Mountain—Colorado, 2 (1-19); Utah, 1 (1-19); Pacific—California, 8 (354).  
 SIC 3949, Sporting and Athletic Goods: New England—New Hampshire, 2 (100-249); Vermont, 3 (20-99); Rhode Island, 12 (237); Middle Atlantic—New Jersey, 41 (500-999); Pennsylvania, 67 (1,000-2,499); West North Central—North Dakota, 2 (1-19); Nebraska, 7 (20-99); Kansas, 19 (124); South Atlantic—Maryland, 7 (320); Virginia, 5 (1,000-2,499); West Virginia, 4 (20-99); North Carolina, 11 (20-99); Georgia, 15 (468); East South Central—Kentucky, 9 (250-499); Alabama, 18 (236); Mississippi, 5 (20-99); West South Central—Arkansas, 16 (500-999); Louisiana, 14 (320); Oklahoma, 14 (250-499); Mountain—Montana, 5 (20-99); Idaho, 6 (173); New Mexico, 1 (1-19); Arizona, 4 (20-99); Utah, 4 (1-19); Nevada, 3 (1-19); Pacific—Oregon, 27 (250-499); Hawaii, 2 (1-19).  
<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.



TABLE 3. Detailed Statistics: 1963

Item	Musical instruments and parts (SIC 3931)	Games and toys (SIC 3941)	Dolls (SIC 3942)	Children's vehicles (SIC 3943)	Sporting and athletic goods (SIC 3949)
Primary product specialization ratio <sup>1</sup> .....	.97	.92	.80-.85	.71	.93
Coverage ratio <sup>2</sup> .....	.92	.91	.87	.65	.91
Establishments, total.....number..	320	797	410	64	1,419
With 1 to 19 employees.....do....	194	446	250	33	1,074
With 20 to 99 employees.....do....	79	230	131	16	250
With 100 employees or more.....do....	47	121	29	15	95
Proprietors and working partners.....do....	133	303	213	17	781
All employees (average for the year).....do....	20,095	51,835	16,213	4,542	40,543
Payroll (all employees), total for year.....\$1,000..	103,029	206,744	58,991	19,436	175,777
Production workers:					
Average for the year.....number..	16,664	44,031	13,934	3,796	32,514
March.....do....	17,218	34,886	10,298	3,522	32,101
May.....do....	15,650	40,274	13,434	4,224	33,505
August.....do....	16,226	49,950	16,178	3,902	31,895
November.....do....	17,597	51,018	15,852	3,545	32,557
Man-hours.....1,000..	33,600	84,425	24,361	7,595	62,703
January-March.....do....	8,388	16,290	4,271	1,666	15,428
April-June.....do....	8,102	19,553	5,892	2,190	16,283
July-September.....do....	7,720	23,606	7,144	1,911	15,229
October-December.....do....	9,390	24,976	7,054	1,839	15,763
Wages.....\$1,000..	76,471	145,243	41,751	14,275	123,306
Cost of materials, etc., total.....do....	143,136	362,235	114,418	41,609	345,968
Materials, parts, containers, and supplies consumed.....do....	132,015	325,133	79,382	38,987	293,360
Cost of resales.....do....	8,076	20,523	24,841	871	40,188
Fuels consumed.....do....	919	1,677	316	321	2,046
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	77	296	66	22	198
Cost.....\$1,000..	1,357	4,556	1,042	381	3,391
Generated less sold.....million kw.-hrs..	(D)	(D)	-	-	(D)
Contract work.....\$1,000..	769	10,345	8,837	1,049	6,983
Value of shipments (including resales), total.....do....	314,407	796,631	247,942	77,507	704,718
Value of resales.....do....	10,848	32,737	48,047	1,071	51,989
Value added by manufacture, adjusted.....do....	179,035	444,101	138,100	35,304	360,980
Manufacturers' inventories:					
Beginning of year, total.....do....	55,295	124,625	21,270	12,692	175,662
Finished products.....do....	12,252	58,471	10,589	4,396	84,929
Work-in-process.....do....	27,515	24,676	2,081	3,083	40,075
Materials, supplies, fuel, etc.....do....	15,528	41,477	8,600	5,213	50,658
End of year, total.....do....	63,719	135,267	27,186	11,692	175,061
Finished products.....do....	15,669	68,686	15,331	4,454	81,478
Work-in-process.....do....	31,862	24,167	1,915	2,431	45,786
Materials, supplies, fuel, etc.....do....	16,188	42,414	9,940	4,807	47,792
Expenditures for plant and equipment, total.....do....	6,152	30,441	6,509	1,970	16,127
New, total.....do....	5,779	27,728	6,276	1,858	15,289
New structures and additions to plant.....do....	2,551	6,391	1,823	95	5,192
New machinery and equipment.....do....	3,228	21,337	4,453	1,763	10,102
Used plant and equipment.....do....	373	2,713	233	112	835
Selected operating ratios:					
Payroll/Total employment.....	5,127	3,989	3,638	4,279	4,336
Production workers/Total employment.....	.83	.85	.86	.84	.80
Man-hours/Production workers.....	2,016	1,917	1,748	2,001	1,928
Production worker wages/Man-hours.....	2.28	1.72	1.71	1.88	1.97
Cost of materials and payrolls/Total value of shipments....	.78	.71	.70	.79	.74
Cost of materials/Total value of shipments.....	.46	.45	.46	.54	.49
Adjusted value added/Total employment.....	8,909	8,568	8,518	7,773	8,904
Salaries and wages/Adjusted value added.....	.58	.47	.43	.55	.49

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3931.—MUSICAL INSTRUMENTS AND PARTS											
Establishments.....number..	320	124	39	31	45	34	23	17	6	1	—
All employees:											
Total.....do....	20,095	242	287	445	1,523	2,465	3,848	5,894	5,391	(D)	—
Payroll.....\$1,000..	103,029	920	1,278	1,897	7,265	12,277	19,682	31,523	28,187	(D)	—
Value added, adjusted.....do....	179,035	1,660	1,889	2,951	12,611	18,583	34,774	51,195	55,372	(D)	—
Value of shipments.....do....	314,407	3,780	3,940	5,093	21,198	35,120	63,129	94,288	87,859	(D)	—
Capital expenditures, new...do....	5,779	127	59	188	578	518	1,503	1,622	1,184	(D)	—
INDUSTRY 3941.—GAMES AND TOYS											
Establishments.....number..	797	267	80	99	153	77	67	35	13	6	—
All employees:											
Total.....do....	51,835	429	541	1,422	4,910	5,261	9,866	11,936	9,309	8,161	—
Payroll.....\$1,000..	206,744	1,516	2,103	5,343	17,768	20,064	37,055	46,119	41,544	35,232	—
Value added, adjusted.....do....	444,101	14,195	4,803	11,257	38,152	42,703	73,040	92,061	90,192	77,698	—
Value of shipments.....do....	796,631	18,277	9,350	22,595	73,868	85,433	134,901	169,251	153,437	129,519	—
Capital expenditures, new...do....	27,728	559	452	851	3,107	2,590	5,207	4,830	5,967	4,165	—
INDUSTRY 3942.—DOLLS											
Establishments.....number..	410	109	55	86	86	45	19	9	—	—	1
All employees:											
Total.....do....	16,213	188	378	1,190	2,617	3,133	2,646	6,061	—	—	(D)
Payroll.....\$1,000..	58,991	546	1,186	3,580	8,178	10,280	9,204	26,017	—	—	(D)
Value added, adjusted.....do....	138,100	1,302	2,205	6,757	14,992	21,342	15,020	76,482	—	—	(D)
Value of shipments.....do....	247,942	3,168	4,274	12,757	29,584	39,375	29,864	128,920	—	—	(D)
Capital expenditures, new...do....	6,276	351	369	592	611	1,205	664	2,484	—	—	(D)
INDUSTRY 3943.—CHILDREN'S VEHICLES											
Establishments.....number..	64	21	5	7	6	10	9	6	—	—	—
All employees:											
Total.....do....	4,542	22	31	282	(D)	710	1,618	1,879	—	—	—
Payroll.....\$1,000..	19,436	73	109	1,037	(D)	2,951	7,177	8,089	—	—	—
Value added, adjusted.....do....	35,304	111	195	1,288	(D)	5,232	10,774	17,704	—	—	—
Value of shipments.....do....	77,507	277	530	3,070	(D)	10,837	24,970	37,823	—	—	—
Capital expenditures, new...do....	1,858	25	25	89	(D)	535	282	902	—	—	—
INDUSTRY 3949.—SPORTING AND ATHLETIC GOODS											
Establishments.....number..	1,419	676	201	197	177	73	60	26	7	2	—
All employees:											
Total.....do....	40,543	1,075	1,303	2,773	5,505	5,102	9,548	8,757	6,480	(D)	—
Payroll.....\$1,000..	175,777	3,415	4,896	10,511	21,524	21,736	37,772	41,923	34,000	(D)	—
Value added, adjusted.....do....	360,980	7,161	9,320	22,290	39,417	36,715	67,134	83,472	95,471	(D)	—
Value of shipments.....do....	704,718	15,345	20,529	42,866	82,703	81,280	138,463	148,160	175,372	(D)	—
Capital expenditures, new...do....	15,289	520	693	851	1,355	2,141	2,783	4,804	2,142	(D)	—

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.



**TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(Col. B)	(Col. C)	(Col. D)	(Col. E)	(Col. F)	(Col. G)	(Col. H)	(Col. I)	(Col. J)
		((\$1,000))	((\$1,000))	((\$1,000))	((\$1,000))	(percent)	((\$1,000))	((\$1,000))	((\$1,000))	(percent)
		A	B	C	D	E	F	G	H	I
3931	Musical instruments and parts.....1963..	314,407	293,516	8,324	12,567	97	319,363	293,516	25,847	92
	1958..	236,750	221,093	5,157	10,500	98	242,144	221,093	21,051	91
3941	Games and toys.....1963..	796,631	693,914	61,822	40,895	92	763,917	693,914	70,003	91
	1958..	544,056	482,947	35,395	25,714	93	522,031	482,947	39,084	92
3942	Dolls.....1963..	247,942	164,943	(D)	(D)	80-85	190,403	164,943	25,460	87
	1958..	161,924	152,561	3,099	6,264	98	161,893	152,561	9,332	94
3943	Children's vehicles.....1963..	77,507	53,972	22,041	1,494	71	82,656	53,972	28,684	65
	1958..	70,438	57,011	10,530	2,897	84	72,914	57,011	15,903	78
3949	Sporting and athletic goods.....1963..	704,718	597,554	46,973	60,191	93	655,542	597,554	57,988	91
	1958..	577,815	472,655	67,301	37,859	88	519,920	472,655	47,265	91

Note: See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.  
(X) Not applicable.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)

miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Musical instruments and parts (SIC 3931)	Other industries
<b>MUSICAL INSTRUMENTS AND PARTS INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	314,407	(X)
	Primary Products.....	319,363	293,516	25,847
39311	Pianos.....	87,705	87,705	-
39312	Organs.....	107,292	90,217	17,075
39313	Piano and organ parts.....	42,284	36,999	25,285
39314	Other musical instruments and parts.....	77,669	75,438	2,231
39310	Musical instruments and parts, n.s.k.....	4,413	3,157	1,256
	Secondary products, total.....	(X)	8,324	(X)
25112	Other wood living room, library, sunroom, and hall furniture.....	(X)	2,164	(X)
	Other secondary products.....	(X)	36,160	(X)
	Miscellaneous receipts, total.....	(X)	12,567	(X)
	Contract and commission work.....	(X)	403	(X)
	Sales of products bought and resold.....	(X)	10,848	(X)
	Other miscellaneous receipts.....	(X)	1,316	(X)
<b>GAMES AND TOYS INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	796,631	(X)
39410	Games and toys, except dolls and children's vehicles.....	763,917	693,914	448,904
	Secondary products.....	(X)	61,822	(X)
3079-	Miscellaneous plastics products.....	(X)	9,853	(X)
39430	Baby carriages and children's vehicles, except bicycles.....	(X)	2,773	(X)
	Other secondary products.....	(X)	549,196	(X)
	Miscellaneous receipts.....	(X)	40,895	(X)
	Contract work.....	(X)	6,375	(X)
	Sales of products bought and resold.....	(X)	32,737	(X)
	Other miscellaneous receipts.....	(X)	1,783	(X)
<b>DOLLS INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	247,942	(X)
39420	Dolls and stuffed toy animals.....	190,403	164,943	625,460
	Secondary products.....	(X)	(D)	(X)
	Miscellaneous receipts.....	(X)	(D)	(X)
<b>CHILDREN'S VEHICLES INDUSTRY</b>				
	Total shipments and receipts of the industry.....	(X)	77,507	(X)
39430	Baby carriages and children's vehicles, except bicycles.....	82,656	53,972	728,684
	Secondary products.....	(X)	22,041	(X)
25144	Other metal household furniture.....	(X)	2,088	(X)
39410	Games and toys, except dolls and children's vehicles.....	(X)	3,523	(X)
	Other secondary products.....	(X)	816,430	(X)
	Miscellaneous receipts.....	(X)	1,494	(X)
	Sales of products bought and resold.....	(X)	1,071	(X)
	Other miscellaneous receipts.....	(X)	423	(X)

See footnotes at end of table.



TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Sporting and athletic goods (SIC 3949)	Rubber products, n.e.c. (SIC 3069)	Other industries
	SPORTING AND ATHLETIC GOODS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	704,718	(X)	(X)
	Primary products.....	655,542	597,554	15,198	42,790
39491	Fishing tackle and equipment.....	96,870	94,626	(X)	2,244
39492	Other sporting and athletic goods.....	525,444	471,322	15,198	938,922
39490	Sporting and athletic goods, n.s.k.....	33,228	31,606	(X)	1,622
	Secondary products.....	(X)	46,973	(X)	(X)
3079-	Miscellaneous plastics products.....	(X)	2,580	(X)	(X)
	Other secondary products.....	(X)	1044,393	(X)	(X)
	Miscellaneous receipts.....	(X)	60,191	(X)	(X)
	Contract work.....	(X)	3,988	(X)	(X)
	Sales of products bought and resold.....	(X)	51,989	(X)	(X)
	Other miscellaneous receipts.....	(X)	4,214	(X)	(X)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>The following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3651, Radio and TV Receiving Sets; and 3662, Radio, TV Communications Equipment.

<sup>2</sup>The following industry had shipments which totaled \$2 million or more but is withheld to avoid disclosing figures for individual companies: 3651, Radio and TV Receiving Sets.

<sup>3</sup>Includes the following product class which totaled \$2 million or more but is withheld to avoid disclosing individual company figures: 36513, "Recorders, audio amplifiers, phonographs, tuners, speaker systems, and other audio equipment and accessories."

<sup>4</sup>Includes \$2,148 thousand shipped by industry 3069, Rubber Products, N.E.C. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 2731, Books, Publishing and Printing; 3461, Metal Stampings; and 3631, Household Cooking Equipment.

<sup>5</sup>Includes the following product classes which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 31610, Suitcases, briefcases, bags, and musical instrument cases; 39420, Dolls and stuffed toy animals; and 39492, Other sporting and athletic goods.

<sup>6</sup>The following industry had shipments which totaled \$2 million or more but is withheld to avoid disclosing figures for individual companies: 3941, Games and Toys.

<sup>7</sup>Includes \$2,773 thousand shipped by Industry 3941, Games and Toys. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3522, Farm Machinery and Equipment; and 3751, Motorcycles, Bicycles, and Parts.

<sup>8</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 25116, Infants' and children's wood furniture; 37510, Bicycles, motorcycles, motorbikes, scooters and parts; 37992, Other transportation equipment; and 39492, Other sporting and athletic goods.

<sup>9</sup>Includes \$2,440 thousand shipped by industry 3141, Shoes, Except Rubber. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3079, Plastics Products, N.E.C.; 3161, Luggage; 3534, Elevators and Moving Stairways; 3941, Games and Toys; and 3943, Children's Vehicles.

<sup>10</sup>Includes the following product classes which totaled \$2 million or more but are withheld to avoid disclosing individual company figures: 23292, Men's, youths' and boy's outerwear, n.e.c. (made from woven or purchased knit fabrics); 30115, Tread rubber, tire sundries, and repair materials; 35225, Harvesting machinery; and 37291, Other aircraft parts and auxiliary equipment.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (number)	Value (\$1,000)	Quantity (number)	Value (\$1,000)
3931- --	MUSICAL INSTRUMENTS AND PARTS, TOTAL.....	(X)	319,363	(X)	242,144
39311 --	Pianos, total.....	(X)	87,705	(X)	63,674
39311 11	Verticals, uprights, or consoles, 37 inches or less in height.....	115,489	38,605	83,940	29,915
39311 15	Verticals, uprights, or consoles, over 37 inches in height.....	92,819	40,296	71,769	28,963
39311 51	Grand pianos.....	5,487	8,804	3,210	4,796
39312 --	Organs, total.....	(X)	107,292	(X)	79,375
39312 11	Pipe and reed.....	(NA)	13,683	(NA)	14,125
39312 51	Electronic.....	141,874	93,609	88,559	65,250
39313 --	Piano and organ parts, total.....	(X)	42,284	(X)	51,145
39313 11	Piano parts and materials (actions, attachments, strings, tuning pins, etc.), except benches.....	(X)	33,594	(X)	23,244
39313 51	Organ parts and materials, except benches.....	(X)	8,690	(X)	27,901
39314 --	Other musical instruments and parts, total.....	(X)	77,669	(X)	47,950
39314 13	Wind instruments, except organs and accordians:				
39314 15	Wood winds.....	177,735	13,033	} 261,485	19,812
39314 15	Brass winds.....	198,058	17,386		
39314 21	Fretted and string instruments (nonelectronic), except pianos and harps (such as guitars, violins, etc.).....	(NA)	11,685	(X)	( <sup>1</sup> )
39314 31	Accessories and parts, sold separately, such as reed mouthpieces, music stands, drummers traps, etc., except instrument cases and benches.....	(X)	10,516	(X)	6,282
39314 51	Electronic musical instruments, other than electronic organs.....	(X)	9,689	} (X)	118,756
39314 98	Other nonelectronic musical instruments, including harps, accordians, and percussion instruments, such as drums, vibes, etc.....	(NA)	11,195		
39314 00	Other musical instruments and parts, n.s.k.....	(X)	4,165	(X)	3,100
39310 00	Musical instruments and parts, n.s.k.....	(X)	4,413	(X)	-
Product		Value of shipments interplant transfers (\$1,000)			
		1963	1958		
3941- --	GAMES AND TOYS, EXCEPT DOLLS AND CHILDREN'S VEHICLES, TOTAL.....		763,917		522,031
39410 11	Doll carriages and doll carts.....		<sup>2</sup> 10,104		<sup>2</sup> 8,063
39410 23	Toy trains and equipment (mechanical and electric) made to scale at the ratio of larger than 1 to 85 (S, O gages, etc.).....		12,713	} 25,926	
39410 25	Other trains and equipment (HO gage, etc.).....		4,354		
39410 31	Mechanical toys, except trains (propelled by springs or electricity, gear driven) including miniature engines for toy aircraft or toy boats.....		62,681		33,754
39410 41	Structural toy sets.....		6,731		6,197
39410 51	Model construction sets (airplanes, ships, trains, etc.).....		42,642		18,809
39410 61	Metal toys, other than those listed above.....		81,245		72,448
39410 71	Wooden toys, other than those listed above.....		46,043		38,582
39410 83	Plastic toys, other than those listed above:				
39410 85	Molded, extruded or vacuum formed.....		194,458	} 114,537	
39410 85	Vinyl heat sealed.....		16,644		
39410 95	Other toys, not listed above.....		121,970	} 124,883	
39410 97	Games, complete (include chess, checkers, etc.).....		100,573		
39410 91	Parts for toys and games.....		12,264		5,252
39410 00	Games and toys, except dolls and children's vehicles, n.s.k.....		51,495		73,580
Product	Product	Total shipments including interplant transfers			
		1963		1958	
		Quantity (1,000 units)	Value (\$1,000)	Quantity (1,000 units)	Value (\$1,000)
3942- --	DOLLS AND STUFFED TOY ANIMALS, TOTAL.....	(X)	190,403	(X)	161,893
	Dolls:				
	Dolls, complete, made of rubber, plastic or similar materials (except stuffed dolls):				
39420 06	Regular size, 12-1/2" and over.....	25,710	63,361	} <sup>3</sup> 32,166	<sup>3</sup> 62,139
39420 07	Miniature, 12" and under.....	13,471	19,232		
39420 08	Stuffed dolls.....	6,578	13,822		

See footnotes at end of table.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Total shipments including interplant transfers				
		1963		1958		
		Quantity (1,000 units)	Value (\$1,000)	Quantity (1,000 units)	Value (\$1,000)	
3942- --	DOLLS AND STUFFED TOY ANIMALS--Continued					
39420 16	Doll parts.....	(X)	15,262	} 421,923	} 439,556	
39420 18	Doll clothes and accessories.....	(X)	13,898			
39420 53	Stuffed toy animals.....	28,403	38,492			
39420 55	Other stuffed toys, including puppets.....	(X)	4,319			
39420 00	Dolls, and stuffed toy animals, n.s.k.....	(X)	22,017	(X)	27,104	
3943- --	CHILDREN'S VEHICLES, EXCEPT BICYCLES, TOTAL.....	(X)	82,656	(X)	72,914	
39430 11	Baby carriages, including combination carriage-strollers.....	329	7,358	280	7,657	
39430 15	Strollers.....	1,023	12,553	1,087	11,589	
39430 21	Baby walkers.....	612	4,355	559	3,483	
39430 33	Children's pedal driven automobiles and tractors.....	1,055	9,803	(5)	(5)	
39430 43	Velocipedes (3 wheeled) and tricycles; including chain driven tricycles..	3,113	20,754	2,423	18,171	
39430 61	Children's wagons (coaster, express, and other).....	2,562	8,575	2,204	7,675	
39430 71	Sleds.....	1,271	5,337	921	3,327	
39430 81	Parts for children's vehicles, sold separately.....	(X)	2,237	(X)	1,908	
39430 98	Other children's vehicles, including scooters, sidewalk cycles, three-wheel play cars, etc.....	(X)	9,912	(X)	517,954	
39430 00	Children's vehicles, except bicycles, n.s.k.....	(X)	1,772	(X)	1,150	
	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3949- --	SPORTING AND ATHLETIC GOODS, TOTAL.....		(X)	655,542	(X)	519,920
39491 --	Fishing tackle and equipment.....		(X)	96,870	(X)	75,759
39491 14	Fishing rods, all types.....	1,000.....	7,953	24,109	5,408	16,522
39491 15	Fishing reels.....	do.....	5,981	24,056	5,428	22,816
39491 16	Fish hooks, including snelled hooks; casting plugs, flies, lures and similar artificial baits.....		(X)	17,379	(X)	15,503
39491 19	Other fishing tackle, including floats, furnished lines, sinkers, snap swivels, etc.....		(X)	24,895	(X)	20,918
39491 00	Fishing tackle and equipment, n.s.k.....		(X)	6,431	(X)	-
39492 --	Other sporting and athletic goods.....		(X)	525,444	(X)	398,762
39492 22	Billiard and pool tables and playing supplies, including balls, cues, etc.....		(X)	37,236	(X)	5,207
39492 25	Bowling alleys.....		(X)	18,837	(X)	(6)
39492 28	Bowling alley playing supplies:					
39492 29	Bowling balls.....	1,000.....	1,559	16,932	897	10,540
	Other bowling alley playing supplies, including pins, bowling pin setters, etc.....		(X)	85,701	(X)	6134,875
39492 31	Golf balls.....	1,000 dozen...	6,696	33,122	3,386	18,831
39492 41	Golf clubs:					
39492 45	Irons.....	1,000.....	6,915	33,011	4,648	20,982
	Woods.....	do.....	2,874	18,801	1,785	11,507
39492 49	Other golf equipment, such as golf bags, carts for carrying golf bags, shafts sold as such, etc. (excluding shoes and other accessories).....		(X)	32,003	(X)	(8)
39492 61	Baseballs.....	1,000 dozen...	793	7,963	735	8,510
39492 63	Softballs and indoor type baseballs.....	do.....	277	4,434	353	4,747
39492 65	Baseball bats, including softball bats.....	1,000.....	6,904	9,832	6,082	7,092
39492 66	Baseball mitts and gloves.....	1,000 dozen...	142	10,774	308	13,630
39492 67	Footballs.....	do.....	156	6,616	226	5,049
39492 71	Basketballs.....	do.....	187	7,973	200	7,763
39492 73	Inflatable athletic balls other than footballs and basketballs (including soccer balls, volley balls, etc.).....	do.....	163	7,017	179	5,369
39492 84	Sidewalk and rink roller skates.....	1,000 pairs...	2,304	7,523	4,540	9,530
39492 88	Ice skates.....	do.....	2,219	10,969	(X)	(8)
39492 85	Playground equipment, including rebound tumbling equipment, gymnasium equipment, and health and exercising equipment.....		(X)	46,103	(X)	20,068
39492 86	Snow skis.....		(X)	8,929	(X)	(8)
39492 92	Winter sports equipment, such as snow ski poles, bob sleds, toboggans, hockey goods (excluding athletic clothing, shoes, children's sleds).....		(X)	5,165	(X)	(8)
39492 87	Water skis.....		(X)	3,618	(X)	(8)
39492 93	Underwater sports equipment (SCUBA) (skin diving equipment) such as aqualungs and attachments, face masks, fins, etc. (excluding clothing, watches, and cameras).....		(X)	5,305	(X)	(8)

See footnotes at end of table.

TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
39492 --	Other sporting and athletic goods—Continued					
39492 94	Tennis, badminton, and related equipment, including tennis balls, rackets, and frames, shuttle cocks, squash equipment, and other supplies.....	.....	(X)	9,663	(X)	( <sup>8</sup> )
39492 91	Archery equipment.....	.....	(X)	12,441	(X)	( <sup>8</sup> )
39492 98	Other sporting and athletic goods, including boxing gloves, table tennis goods, water skiing equipment (except skis) wading pools, etc., but excluding athletic clothing and shoes.....	.....	(X)	70,525	(X)	<sup>8</sup> 115,062
39492 00	Other sporting and athletic goods, n.s.k.....	.....	(X)	14,951	(X)	-
39490 00	Sporting and athletic goods, n.s.k.....	.....	(X)	33,228	(X)	45,399

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.s.k. Not specified by kind.

<sup>1</sup>1958 data for fretted and string instruments are included with data for "Other musical instruments," code 3931498.

<sup>2</sup>2,538 thousand units were shipped in 1963 and 2,397 thousand in 1958.

<sup>3</sup>The quantity figure relates to a value of \$53,874 thousand. In addition, \$8,265 thousand were reported without quantity.

<sup>4</sup>The quantity figure relates to a value of \$33,650 thousand. In addition, \$5,906 thousand were reported without quantity.

<sup>5</sup>In 1958, data for children's pedal driven automobiles and tractors (product code 3943033) were included with other children's vehicles (product code 3943098).

<sup>6</sup>In 1958, product code 3949225 was combined with product code 3949229, "Other bowling alley playing supplies," to avoid disclosing figures for individual companies.

<sup>7</sup>Some products, e.g., pin setters, are not sold but are leased. The values reported for such products represents the valuation placed on them for tax, insurance, and similar purposes.

<sup>8</sup>In 1958, data for product codes 3949249, 88, 86, 92, 87, 93, 94, and 91 are included with "Other sporting and athletic goods," product code 3949298.



**TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
393	Musical instruments and parts <sup>1</sup> .....1963..	190	99
	.....1958..	141	102
3931	Musical instruments and parts <sup>1</sup> .....1963..	190	99
	.....1958..	141	102
39311	Pianos.....1963..	134	116
	.....1958..	98	115
39312	Organs.....1963..	394	73
	.....1958..	261	81
39314	Other musical instruments and parts.....1963..	198	105
	.....1958..	135	98
3942	Dolls.....1963..	124	119
	.....1958..	113	109
3943	Children's vehicles.....1963..	116	110
	.....1958..	99	114
3949	Sporting and athletic goods.....1963..	196	110
	.....1958..	158	109
39491	Fishing tackle and equipment.....1963..	140	103
	.....1958..	107	105
39492	Other sporting and athletic goods.....1963..	209	112
	.....1958..	165	110

<sup>1</sup>Adjusted to include piano and organ parts (product class 39313).

**TABLE 6C. Product Classes—Value Shipped by All Manufacturing Establishments, 1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3931-	Musical instruments and parts.....	319,363	310,664	294,976	288,905	309,186	242,144	168,633	120,674
39311	Pianos.....	87,705	91,732	84,726	81,579	80,825	63,674	56,695	51,621
39312	Organs.....	107,292	92,805	92,541	(89,647)	112,463	79,375	37,454	14,453
39313	Piano and organ parts.....	42,284	62,362	59,891	58,821	63,833	51,145	38,123	22,947
39314	Other musical instruments and parts.....	77,669	63,765	57,818	58,858	52,065	47,950	36,361	31,653
39310	Musical instruments and parts, n.s.k.....	4,413	-	-	-	-	-	-	-
39410	Games and toys, except dolls and children's vehicles.....	763,917	693,943	664,366	568,460	555,382	522,031	400,378	185,928
39420	Dolls and stuffed toy animals.....	190,403	218,220	214,152	198,335	179,475	161,893	131,932	63,199
39430	Baby carriages and children's vehicles, except bicycles.....	82,656	70,040	70,898	78,132	82,569	72,914	64,547	86,458
3949-	Sporting and athletic goods, n.e.c.....	655,542	655,594	742,747	661,870	577,085	519,920	302,674	209,970
39491	Fishing tackle and equipment.....	96,870	78,184	78,373	74,306	76,228	75,759	67,449	57,778
39492	Other sporting and athletic goods.....	525,444	557,410	626,155	553,231	456,054	398,762	219,180	138,532
39490	Sporting and athletic goods, n.s.k.....	33,228	(20,000)	(38,219)	(34,333)	(44,803)	45,399	16,045	13,660

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
ORGANS (39312)			BABY CARRIAGES AND CHILDREN'S VEHICLES EXCEPT BICYCLES (39430)			FISHING TACKLE AND EQUIPMENT (39491)—Continued		
United States, total.....	107,292	79,375	United States, total....	82,656	72,914	Pacific.....	9,848	4,857
New England.....	2,672	3,581	New England.....	5,979	8,843	Washington.....	1,959	(2)
Middle Atlantic.....	10,082	11,946	Middle Atlantic.....	13,264	8,736	California.....	7,095	3,911
North Central.....	68,227	55,525	New York.....	9,167	6,749	OTHER SPORTING AND ATHLETIC GOODS (39492)		
Ohio.....	2,072	(2)	East North Central.....	30,947	33,226	United States, total....	525,444	398,762
Illinois.....	56,875	38,959	Ohio.....	6,055	8,482	New England.....	75,743	57,278
South and West.....	26,311	8,323	Illinois.....	15,821	(2)	Maine.....	2,270	2,153
OTHER MUSICAL INSTRUMENTS AND PARTS (39314)	1963 <sup>1</sup>		West North Central.....	4,473	4,456	Massachusetts.....	51,558	38,773
United States, total.....		77,669	South.....	21,976	(2)	Connecticut.....	12,242	9,745
New England.....		2,340	West.....	6,017	(2)	Middle Atlantic.....	84,646	101,174
Massachusetts.....		1,989	FISHING TACKLE AND EQUIPMENT (39491)			New York.....	45,535	70,574
Middle Atlantic.....		11,182	United States, total....	96,870	75,759	New Jersey.....	13,458	8,104
New York.....		5,470	New England.....	2,825	1,881	Pennsylvania.....	25,653	22,496
North Central.....		55,587	Connecticut.....	1,185	(Z)	East North Central.....	203,379	148,245
Ohio.....		5,235	Middle Atlantic.....	15,469	13,916	Ohio.....	46,613	54,439
Indiana.....		18,904	New York.....	9,187	8,277	Indiana.....	8,689	3,637
Illinois.....		18,744	New Jersey.....	1,255	(Z)	Illinois.....	56,184	47,287
Wisconsin.....		7,828	Pennsylvania.....	5,027	(2)	Michigan.....	81,074	36,359
South and West.....		8,560	East North Central.....	30,482	31,568	Wisconsin.....	10,819	6,523
California.....		7,149	Ohio.....	5,373	6,270	West North Central.....	39,417	25,061
DOLLS, AND STUFFED TOY ANIMALS (39420)			Indiana.....	2,161	1,169	Minnesota.....	13,454	3,947
United States, total.....		190,403	Illinois.....	2,018	2,100	Iowa.....	7,832	4,090
New England.....		8,617	Michigan.....	15,995	17,617	Missouri.....	16,366	16,181
Massachusetts.....		5,698	Wisconsin.....	4,935	4,412	South Atlantic.....	34,446	16,732
Connecticut.....		1,843	West North Central.....	8,120	6,583	Georgia.....	6,294	(2)
Middle Atlantic.....		142,359	Minnesota.....	3,492	3,024	Florida.....	1,984	(Z)
New York.....		122,766	South.....	24,618	(2)	East South Central.....	28,401	22,346
New Jersey.....		14,766	Florida.....	3,986	1,794	Tennessee.....	12,851	(2)
Pennsylvania.....		4,827	Texas.....	1,868	(Z)	Alabama.....	4,348	5,777
North Central.....		3,330	Mountain.....	5,508	6,102	West South Central.....	17,949	8,965
South.....		11,311				Arkansas.....	6,456	(2)
Georgia.....		4,042				Texas.....	7,455	(2)
Pacific.....		24,786				Mountain.....	1,207	(Z)
						Pacific.....	40,256	(Z)
						Oregon.....	2,010	(Z)
						California.....	37,158	17,012

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million reported.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 39312, Connecticut, New York, New Jersey, Pennsylvania, Indiana, Maryland, Mississippi, Arkansas, and California; 39314, New Jersey, Pennsylvania, and Michigan; 39430, Massachusetts, New Jersey, Pennsylvania, Indiana, Michigan, Wisconsin, Missouri, Tennessee, Alabama, Mississippi, and California; 39420, South Carolina and California; 39491, Iowa, Virginia, South Carolina, Oklahoma, Idaho, and Colorado; 39492, New Hampshire, Rhode Island, Maryland, Virginia, South Carolina, Kentucky, Mississippi, Louisiana, and Washington.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.



TABLE 7A. Materials by Kind: 1963

Code	Material	Unit of measure	1963	
			Quantity	Delivered cost (\$1,000)
INDUSTRY 3941.—GAMES AND TOYS				
	Materials, components, parts, containers, and supplies, total.....		(X)	325,133
	Mill shapes and forms:			
331001	Carbon steel.....	Short tons.....	52,957	<sup>1</sup> 12,716
331020	Alloy steel.....	..do.....	(NA)	<sup>1</sup> 3,286
331031	Stainless steel.....	..do.....		
335208	Aluminum and aluminum-base alloy.....	1,000 lbs.....	312	199
335003	Copper and copper-base alloy.....	..do.....	597	431
282130	Thermoplastic resins.....	..do.....	184,293	<sup>1</sup> 36,521
282140	Thermosetting resins.....	..do.....	13,118	<sup>1</sup> 2,727
220123	Broadwoven fabrics (cotton, wool, man-made fiber fabrics, etc.).....	1,000 lin. yds..	2,509	1,240
311100	Leather, finished.....	1,000 lbs.....	3,423	864
265011	Paperboard containers and boxes.....	.....	(X)	<sup>1</sup> 38,769
362115	Fractional horsepower electric motors (under 1 hp. ) (excluding timing motors).....	1,000.....	7,397	2,573
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	-	183,550
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....	.....	(X)	42,257
INDUSTRY 3942.—DOLLS				
	Materials, components, parts, containers, and supplies, total.....		(X)	79,382
	Mill shapes and forms:			
331001	Carbon steel.....	Short tons.....	1,537	394
331020	Alloy steel.....	..do.....		
331031	Stainless steel.....	..do.....	-	-
335208	Aluminum and aluminum-base alloy.....	1,000 lbs.....	(D)	(D)
335003	Copper and copper-base alloy.....	..do.....	(D)	(D)
282130	Thermoplastic resins.....	1,000 lbs.....	15,644	4,945
282140	Thermosetting resins.....	..do.....	(D)	(D)
220123	Broadwoven fabrics (cotton, wool, man-made fiber fabrics, etc.).....	1,000 lin. yds..	11,506	8,180
265011	Paperboard containers and boxes.....	.....	(X)	6,387
362115	Fractional horsepower electric motors (under 1 hp.) (excluding timing motors).....	1,000.....	(D)	(D)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	35,244
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....	.....	(X)	24,232
INDUSTRY 3943.—CHILDREN'S VEHICLES				
	Materials, components, parts, containers, and supplies, total.....		(X)	38,987
	Mill shapes and forms:			
331001	Carbon steel.....	Short tons.....		
331020	Alloy steel.....	..do.....	38,090	7,667
331031	Stainless steel.....	..do.....		
335208	Aluminum and aluminum-base alloy.....	1,000 lbs.....	(D)	(D)
282130	Thermoplastic resins.....	..do.....	(D)	(D)
220123	Broadwoven fabrics (cotton, wool, man-made fiber fabrics, etc.).....	1,000 lin. yds..	1,328	755
331100	Leather, finished.....	1,000 lbs.....	(D)	(D)
265001	Paperboard containers and boxes.....	.....	(X)	1,606
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	19,901
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....	.....	(X)	9,058
INDUSTRY 3949.—SPORTING AND ATHLETIC GOODS				
	Materials, components, parts, containers, and supplies, total.....		(X)	293,360
	Mill shapes and forms:			
331001	Carbon steel.....	Short tons.....	78,125	15,683
331020	Alloy steel.....	..do.....	5,507	4,347
331031	Stainless steel.....	..do.....	1,528	1,901
335208	Aluminum and aluminum-base alloy.....	1,000 lbs.....	9,357	5,048
335003	Copper and copper-base alloy.....	..do.....	2,433	1,955

See footnotes at end of table.

TABLE 7A. **Materials by Kind: 1963**—Continued

Code	Material	Unit of measure	1963	
			Quantity	Delivered cost (\$1,000)
			INDUSTRY 3949.—SPORTING AND ATHLETIC GOODS—Continued	
	Materials, components, parts, containers, and supplies—Continued			
282130	Thermoplastic resins.....	1,000 lbs.....	11,511	<sup>1</sup> 4,557
282140	Thermosetting resins.....	..do.....	6,441	<sup>1</sup> 2,276
220123	Broadwoven fabrics (cotton, wool, man-made fiber fabrics, etc.).....	1,000 lin. yds..	17,519	9,006
311100	Leather, finished.....	1,000 lbs.....	8,159	14,276
265011	Paperboard containers and boxes.....		(X)	9,002
362115	Fractional horsepower electric motors (under 1 hp.) (excluding timing motors).....	1,000.....	69	2,088
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	175,645
976000	Materials, parts, containers, and supplies, n.s.k. <sup>2</sup> .....		(X)	47,576

Note: No comparable data for materials consumed was collected in 1958.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

n.s.k Not specified by kind.

<sup>1</sup>Estimates for 1958 for selected materials were published in MC58(1)-7 (Supplement), "Selected Materials Consumed," from data collected in a supplemental survey on Form MA-131, "Consumption of Materials, Parts, Containers and Supplies During 1958." This survey was limited to large establishments in selected chemical, machinery and equipment industries and resulted in estimates which are subject to greater error than are the figures on materials consumption collected as a regular part of the census of manufactures. Estimates for these industries are as follows:

Industry	Materials	Delivered cost (million dollars)
3941	Iron and steel shapes and forms....	17
	Plastics and resins materials.....	27
	Paperboard containers and boxes....	34
3949	Plastics and resins materials.....	8

<sup>2</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."



TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

Item	Musical instruments and parts (SIC 3931)	Games and toys (SIC 3941)	Dolls (SIC 3942)	Children's vehicles (SIC 3943)	Sporting and athletic goods (SIC 3949)
Total cost of purchased fuels and electric energy.....\$1,000..	2,050	5,881	1,333	746	6,711
Total cost of purchased fuels.....do....	787	1,991	443	397	2,904
Bituminous coal, lignite, and anthracite:					
Quantity.....1,000 short tons..	23	7	(S)	(S)	27
Cost.....\$1,000..	191	63	(S)	(S)	250
Coke and breeze:					
Quantity.....1,000 short tons..	(S)	-	-	-	-
Cost.....\$1,000..	(S)	-	-	-	-
Fuel oil (distillate and residual):					
Quantity.....1,000 barrels of 42 gallons..	62	194	29	(S)	283
Cost.....\$1,000..	235	692	113	(S)	1,266
Gas (natural, manufactured, still, blast furnace, and coke oven):					
Quantity.....million cu.ft..	437	1,093	(S)	358	1,364
Cost.....\$1,000..	254	717	(S)	223	916
Other fuels.....do....	(S)	519	229	58	472
Electric energy:					
Purchased:					
Quantity.....million kw.-hrs..	70	247	47	20	275
Cost.....\$1,000..	1,263	3,890	890	349	3,807
Generated less sold.....million kw.-hrs..	(S)	-	-	-	(S)
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	50	131	22	16	141
Prime movers, total.....do....	3	4	-	3	10
Driving generators.....do....	1	1	-	2	2
Not driving generators.....do....	2	3	-	1	8
Electric motors, total.....do....	47	128	23	13	132
Driven by purchased energy.....do....	47	128	22	13	131
Driven by energy generated at establishment.....do....	(Z)	-	-	-	2
Aggregate horsepower per 100 production workers.....	271	334	130	430	479

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower.

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3931-	MUSICAL INSTRUMENTS AND PARTS										
	Entire industry.....	320	20,095	103,029	16,664	33,600	76,471	179,035	143,136	314,407	5,779
	Establishments with--										
	90% or more specialization.	301	18,522	94,282	15,284	30,824	69,440	164,665	135,450	293,194	5,597
	75-89% specialization.....	4	541	3,264	468	933	2,631	4,851	2,337	7,138	64
39311	Pianos (primary product class of estab.).....	23	5,435	27,459	4,608	9,035	21,494	42,253	52,332	93,602	1,551
39312	Organs (primary product class of estab.).....	32	5,713	28,021	4,462	8,973	18,408	58,908	41,404	96,626	1,396
39313	Pianos and organ parts (primary product class of estab.).....	32	2,694	12,565	2,340	4,814	9,705	20,516	12,680	32,484	661
	Establishments with--										
	90% or more specialization...	27	2,387	10,976	2,067	4,280	8,414	17,763	10,778	27,887	636
39314	Other musical instruments and parts (primary product class of estab.).....	172	5,998	34,023	5,043	10,356	26,100	55,514	35,236	88,396	2,052
	Establishments with--										
	90% or more specialization...	162	4,749	26,964	3,949	8,143	20,437	44,952	29,703	72,783	1,948
3943-	CHILDREN'S VEHICLES										
	Entire industry.....	64	4,542	19,436	3,796	7,595	14,275	35,304	41,609	77,507	1,858
	Establishments with--										
	90% or more specialization.	41	920	3,850	784	1,621	2,821	4,949	6,936	12,543	399
	75-89% specialization.....	12	2,029	9,776	1,671	3,222	7,250	18,924	19,124	37,621	960
3949-	SPORTING AND ATHLETIC GOODS										
	Entire industry.....	1,419	40,543	175,777	32,514	62,703	123,306	360,980	345,968	704,718	15,289
	Establishments with--										
	90% or more specialization.	1,317	32,046	138,465	25,990	49,920	99,027	292,250	289,795	576,917	11,202
	75-89% specialization.....	24	2,615	10,262	2,019	3,829	6,507	13,928	12,266	30,861	497
39491	Fishing tackle and equipment (primary product class of estab.)	380	8,527	33,118	6,899	13,479	22,260	65,910	49,397	114,447	2,804
	Establishments with--										
	90% or more specialization...	342	6,641	25,733	5,423	10,527	17,613	50,991	40,458	90,761	1,896
	75-89% specialization.....	10	570	2,139	471	924	1,516	4,590	2,618	6,946	199
39492	Other sporting and athletic goods (primary product class of estab.)	604	29,365	134,110	23,377	44,895	94,170	278,366	280,189	556,406	11,422
	Establishments with--										
	90% or more specialization...	524	22,465	102,785	18,129	34,642	73,889	222,157	229,621	446,502	8,141
	75-89% specialization.....	32	2,078	8,356	1,626	3,049	5,286	9,482	11,472	25,822	201





## OFFICE SUPPLIES, COSTUME JEWELRY, AND MISCELLANEOUS NOTIONS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3951—Pens, Pen Points, Fountain Pens, Ball Point Pens, Mechanical Pencils and Parts
- 3952—Lead Pencils, Crayons, and Artists' Materials
- 3953—Marking Devices
- 3955—Carbon Paper and Inked Ribbons
- 3961—Costume Jewelry and Costume Novelties, Except Precious Metal
- 3962—Feathers, Plumes, and Artificial Flowers
- 3963—Buttons
- 3964—Needles, Pins, Hooks and Eyes, and Similar Notions

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3951—PENS, PEN POINTS, FOUNTAIN PENS, BALL POINT PENS, MECHANICAL PENCILS AND PARTS

This industry comprises establishments primarily engaged in manufacturing pens, pen points, fountain pens, ball point pens, refill cartridges, and parts for pens and mechanical pencils. For a detailed list of products of industry 3951, refer to table 6A, product codes 3951001 to 3951071.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Pens and Mechanical Pencils Industry totaled \$185 million. This amount included shipments of pens and mechanical pencils (primary products) valued at \$165 million, shipments of other products (secondary products) valued at \$18 million, and miscellaneous receipts (mainly products bought and resold) at \$3 million.



This industry's shipments of pens and mechanical pencils represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent. Secondary products shipped by this industry in 1963 include artists' materials (\$2 million).

Shipments of pens and mechanical pencils by this industry represented 93 percent of all shipments of these products (\$178 million) by all industries. In 1958 the coverage ratio was also 93 percent. Other industries shipping pens and mechanical pencils include industry 3952, Lead Pencils and Art Goods, \$6 million.

The production index for the primary products of the industry increased to 216 in 1963 from the 1958 level of 141. The unit value index for 1963 was 63 compared to 83 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3952—LEAD PENCILS, CRAYONS, AND ARTISTS' MATERIALS

This industry comprises establishments primarily engaged in manufacturing lead pencils, pencil leads, and crayons; materials and equipment for art work such as airbrushes, drawing tables and boards, palettes, sketchboxes, pantographs, artists' colors and waxes, pyrography goods, drawing inks, and drafting materials. Establishments primarily engaged in manufacturing mechanical pencils are classified in industry 3951, and drafting instruments in industry 3811. For a detailed list of products of industry 3952, refer to table 6A, product codes 3952111 to 3952211.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Lead Pencils and Art Goods Industry totaled \$122 million. This amount included shipments of lead pencils and art goods (primary products) valued at \$97 million, shipments of other products (secondary products) valued at \$14 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$11 million.

This industry's shipments of lead pencils and art goods represented 87 percent of its total product shipments. The industry specialization ratio in 1958 was 88 percent. Secondary products shipped by this industry in 1963 include pens and mechanical pencils (\$6 million).

Shipments of lead pencils and art goods by this industry represented 90 percent of all shipments of these products (\$108 million) by all industries. In 1958 the coverage ratio was 92 percent. Other industries shipping lead pencils and art goods include industry 3951, Pens and Mechanical Pencils, \$2 million.

#### 3953—MARKING DEVICES

This industry comprises establishments primarily engaged in manufacturing rubber and metal hand stamps, dies, and seals; steel letters and figures; and stencils for use in painting or marking. For a detailed list of products of industry 3953, refer to table 6A, product codes 3953011 to 3953098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Marking Devices Industry totaled \$127 million. This amount included shipments of marking devices (primary products) valued at \$96 million, shipments of other products (secondary products) valued at \$19 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$12 million.

This industry's shipments of marking devices represented 84 percent of its total product shipments. The industry specialization ratio in 1958 was 96 percent.

Shipments of marking devices by this industry represented 90 percent of all shipments of these products (\$107 million) by all industries. In 1958 the coverage ratio was 86 percent.

#### 3955—CARBON PAPER AND INKED RIBBONS

This industry comprises establishments primarily engaged in manufacturing carbon paper for business machines, sales books, etc.; spirit or gelatin process and other stencil paper; and inked ribbons for business machines. For a detailed list of products of industry 3955, refer to table 6A, product codes 3955011 to 3955098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Carbon Paper and Inked Ribbons Industry totaled \$156 million. This amount included shipments of carbon paper and inked ribbons (primary products) valued at \$133 million, shipments of other products (secondary products) valued at \$7 million, and miscellaneous receipts (mainly products bought and resold) at \$15 million.

This industry's shipments of carbon paper and inked ribbons represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent.

Shipments of carbon paper and inked ribbons by this industry represented 83 percent of all shipments of these products (\$161 million) by all industries. In 1958 the coverage ratio was 89 percent. Other industries shipping carbon paper and inked ribbons include industry 3579, Office Machines, N.E.C., \$14 million.

The production index for the primary products of the industry increased to 160 in 1963 from the 1958 level of 130. The unit value index for 1963 was 110 compared to 100 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3961—COSTUME JEWELRY AND COSTUME NOVELTIES, EXCEPT PRECIOUS METAL

This industry comprises establishments primarily engaged in manufacturing costume jewelry, costume novelties, and ornaments made of all materials, except precious metal, precious or semiprecious stones, and rolled gold plate and gold filled materials (industry 3911). For a detailed list of products of industry 3961, refer to table 6A, product codes 3961011 to 3961098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Costume Jewelry Industry totaled \$280 million. This amount included shipments of costume jewelry (primary products) valued at \$243 million, shipments of other products (secondary products) valued at \$13 million, and miscellaneous receipts (mainly products bought and resold) at \$25 million.



This industry's shipments of costume jewelry represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was also 95 percent. Secondary products shipped by this industry in 1963 include jewelry made of precious metals, except platinum and carat gold (\$5 million).

Shipments of costume jewelry by this industry represented 95 percent of all shipments of these products (\$257 million) by all industries. In 1958 the coverage ratio was 96 percent. Other industries shipping costume jewelry include industry 3911, Jewelry, Precious Metal, \$11 million.

#### 3962—FEATHERS, PLUMES, AND ARTIFICIAL FLOWERS

This industry comprises establishments primarily engaged in manufacturing artificial flowers, fruits, and foliage made from all materials, except glass (industry 3231); in producing fancy feathers, plumes, and articles made principally of feathers and plumes; and curling, dyeing, and renovating ostrich feathers for the trade. For a detailed list of products of industry 3962, refer to table 6A, product code 3962011.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Artificial Flowers Industry totaled \$60 million. This amount included shipments of artificial flowers (primary products) valued at \$53 million, shipments of other products (secondary products) valued at \$2 million, and miscellaneous receipts (mainly products bought and resold) at \$6 million.

This industry's shipments of artificial flowers represented 97 percent of its total product shipments. The industry specialization ratio in 1958 was 98 percent.

Shipments of artificial flowers by this industry represented 87 percent of all shipments of these products (\$59 million) by all industries. In 1958 the coverage ratio was 98 percent.

#### 3963—BUTTONS

This industry comprises establishments primarily engaged in manufacturing buttons, button parts, and button blanks and molds, of all materials except precious metal and precious or semiprecious stones (industry 3911). For a detailed list of products of industry 3963, refer to table 6A, product codes 3963011 to 3963098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Buttons Industry totaled \$82 million. This amount included shipments of buttons (primary products) valued at \$71 million, shipments of other products (secondary products) valued at \$3 million, and miscellaneous receipts (mainly products bought and resold) at \$7 million.

This industry's shipments of buttons represented 96 percent of its total product shipments. The industry specialization ratio in 1958 was 98 percent. Secondary products shipped by this industry in 1963 include needles, pins, fasteners (except slide), and similar notions (\$2 million).

Shipments of buttons by this industry represented 87 percent of all shipments of these products (\$82 million) by all industries. In 1958 the coverage ratio was 88 percent. Other industries shipping buttons include industry 3079, Plastics Products, N.E.C., \$4 million; and industry 3964, Needles, Pins, and Fasteners, \$2 million.

### 3964—NEEDLES, PINS, HOOKS AND EYES, AND SIMILAR NOTIONS

This industry comprises establishments primarily engaged in manufacturing notions, such as machine and hand needles, pins, hooks and eyes, eyelets, buckles, and slide and snap fasteners. For a detailed list of products of industry 3964, refer to table 6A, product codes 3964111 to 3964289.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Needles, Pins, and Fasteners Industry totaled \$337 million. This amount included shipments of needles, pins, and fasteners (primary products) valued at \$290 million, shipments of other products (secondary products) valued at \$29 million, and miscellaneous receipts (mainly products bought and resold) at \$18 million.

This industry's shipments of needles, pins, and fasteners represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent. Secondary products shipped by this industry in 1963 include hardware n.e.c. (\$7 million), and buttons (\$2 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 50 percent of the total industry shipments are represented by plants specializing in needles, pins, fasteners (except slide); and similar notions and 45 percent in zipper and slide fasteners.

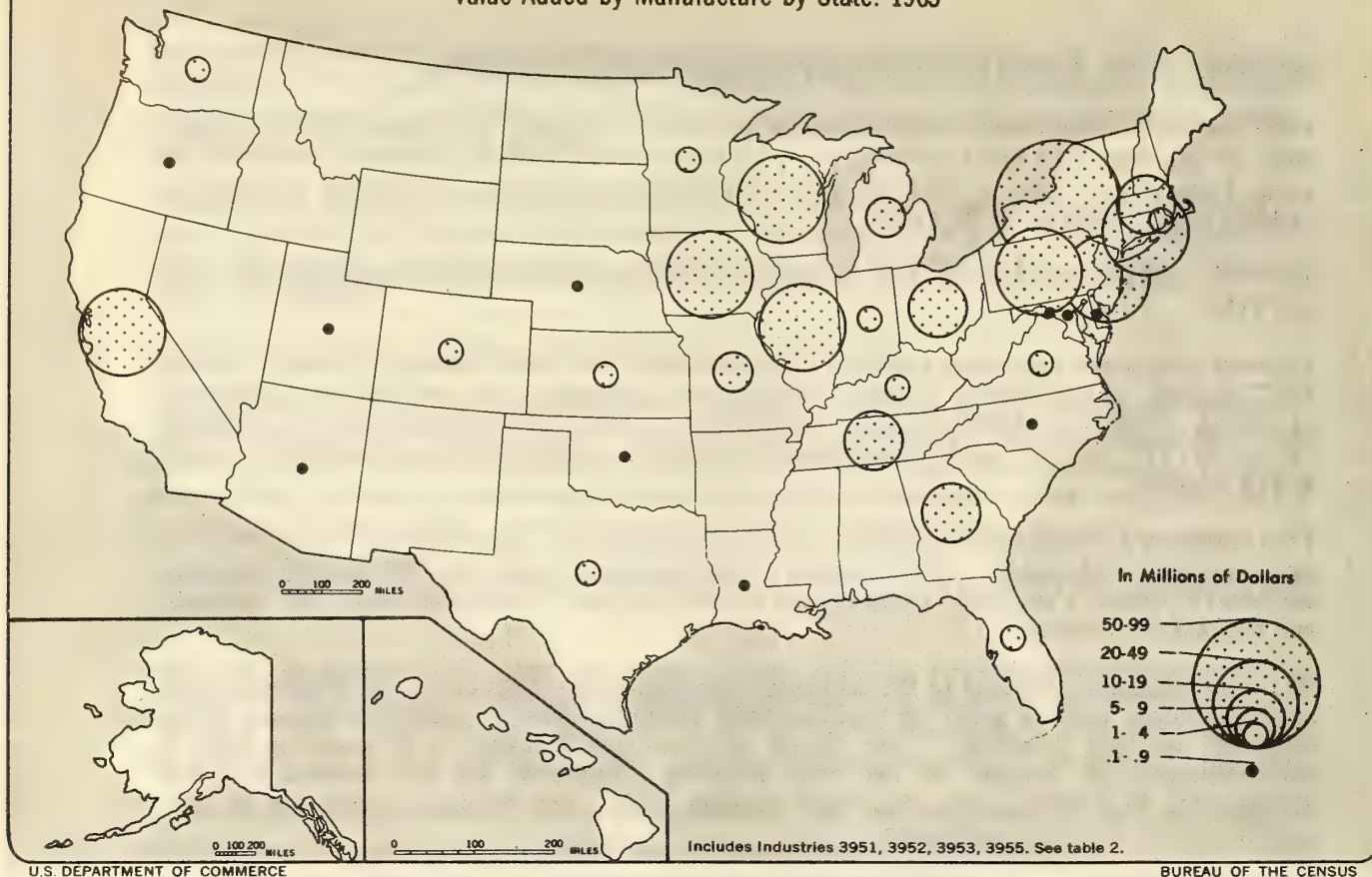
Shipments of needles, pins, and fasteners by this industry represented 92 percent of all shipments of these products (\$315 million) by all industries. In 1958 the coverage ratio was 89 percent. Other industries shipping needles, pins, and fasteners include industry 3963, Buttons, \$2 million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3964, e.g., zipper and slide fasteners, 99 percent; needles, pins, fasteners (except slide), and similar notions, 85 percent.

The production index for the primary products of the industry increased to 168 in 1963 from the 1958 level of 128. The unit value index for 1963 was 105 compared to 98 in 1958. Both indexes were computed on a basis of 1954 = 100.



# **PENS, PENCILS AND OFFICE SUPPLIES: SIC 395** Value Added by Manufacture by State: 1963



# **COSTUME JEWELRY AND NOTIONS: SIC 396** Value Added by Manufacture by State: 1963

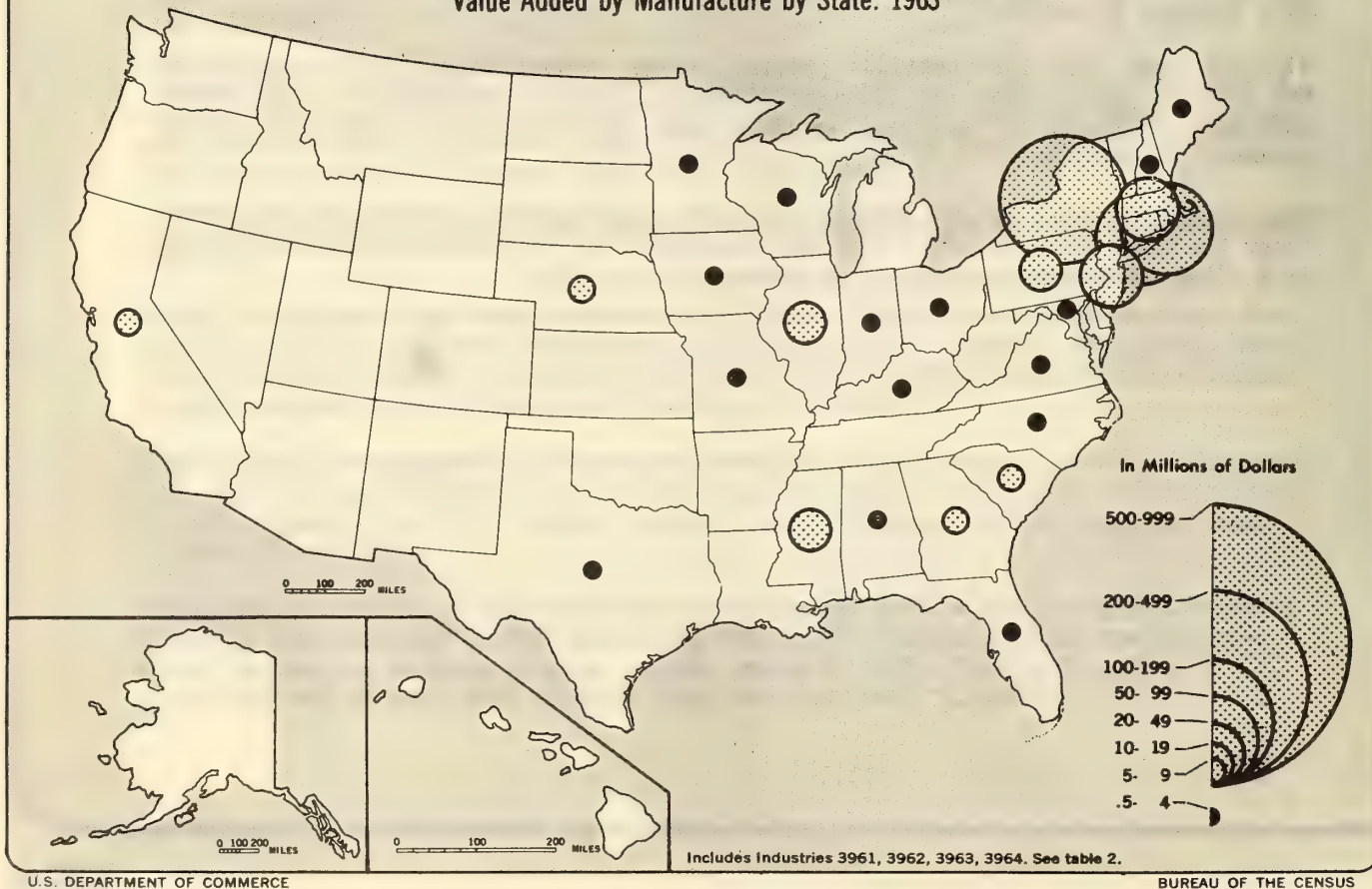


TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3951.—PENS AND MECHANICAL PENCILS														
1963.....	122	139	67	11,562	54,968	9,065	17,937	33,944	119,069	66,615	185,464	4,068	90	93
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,509	48,629	8,083	15,721	29,035	109,846	70,208	180,906	(6,144)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,174	44,434	7,782	15,222	27,082	96,692	70,020	169,642	(5,529)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,060	46,082	8,722	17,386	29,016	94,841	62,001	158,516	3,841	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,868	44,154	8,554	16,699	27,627	92,894	60,079	152,813	2,911	(NA)	(NA)
1958.....	141	147	66	11,179	45,856	8,519	16,234	27,869	90,197	58,012	150,279	3,829	93	93
1954.....	138	140	61	10,879	44,123	8,089	16,428	25,191	84,121	45,855	129,975	3,054	89	95
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,128	39,351	8,163	15,368	24,019	77,282	43,588	120,870	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,160	37,691	8,647	16,588	23,776	80,937	46,775	127,712	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,845	33,529	8,244	16,015	22,391	77,137	41,078	118,215	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,563	32,327	9,094	17,815	20,438	63,923	39,162	103,085	(NA)	(NA)	(NA)
1947.....	180	184	80	15,553	40,606	12,527	24,705	28,207	89,897	57,471	147,368	3,865	93	95
1939.....	(NA)	70	(NA)	6,323	7,860	4,463	(NA)	4,329	16,181	8,700	24,881	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	55	(NA)	(NA)	(NA)	5,703	(NA)	5,356	16,732	9,238	25,970	(NA)	(NA)	(NA)
INDUSTRY 3952.—LEAD PENCILS AND ART GOODS														
1963.....	140	144	57	6,868	31,944	5,020	9,831	18,394	64,731	56,807	121,630	1,594	87	90
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,963	26,470	4,544	9,483	16,146	57,200	52,378	107,582	1,797	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,274	25,971	4,778	9,623	15,971	54,226	48,806	102,842	1,302	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,387	26,627	4,824	9,814	15,716	54,440	54,614	108,845	1,734	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,102	27,331	5,199	10,089	15,812	53,899	53,460	107,000	(1,044)	(NA)	(NA)
1958 <sup>3</sup> .....	138	146	54	6,687	26,183	4,711	9,366	14,746	47,909	49,098	98,494	2,049	88	92
1954.....	(NA)	155	53	6,942	23,720	5,261	10,650	14,835	42,277	42,379	84,189	2,163	(NA)	(NA)
1947.....	(NA)	110	45	7,639	17,946	6,187	12,732	12,353	29,601	28,734	58,335	1,370	(NA)	(NA)
1939.....	(NA)	82	(NA)	5,591	6,939	4,176	(NA)	3,898	10,631	9,299	19,930	(NA)	(NA)	(NA)
1937 <sup>2</sup> .....	(NA)	73	(NA)	(NA)	(NA)	4,788	(NA)	4,615	11,776	9,295	21,071	(NA)	(NA)	(NA)
INDUSTRY 3953.—MARKING DEVICES														
1963.....	581	616	90	7,625	41,367	5,257	10,657	24,950	85,572	41,670	126,845	2,204	84	90
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,847	34,635	4,548	9,430	20,451	58,765	31,680	89,929	(2,331)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,031	29,635	4,144	8,581	18,067	49,615	24,587	73,920	1,521	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,801	30,200	3,962	8,225	18,491	49,440	25,185	74,400	(1,264)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,703	28,934	3,953	7,930	18,142	48,504	23,381	71,961	(1,292)	(NA)	(NA)
1958.....	497	525	70	5,447	24,775	3,875	7,357	15,603	39,940	20,016	59,923	1,360	96	86
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,458	22,031	3,579	7,193	12,948	37,602	16,697	53,817	868	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,854	24,381	4,221	8,421	15,296	42,776	20,263	58,940	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,760	22,523	4,121	8,365	14,173	37,331	16,987	51,649	(S)	(NA)	(NA)
1954.....	444	453	68	5,654	21,857	4,056	8,123	13,764	34,763	19,258	54,289	1,060	90	89
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	4,466	18,216	3,141	6,855	11,836	21,424	9,837	31,261	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	4,179	16,623	2,943	6,233	10,534	21,617	10,175	31,792	(NA)	(NA)	(NA)
1947.....	415	425	62	4,556	12,483	3,362	7,406	8,426	19,486	7,973	27,459	924	89	89
1939.....	(NA)	289	(NA)	3,333	4,697	2,211	(NA)	2,615	7,607	3,205	10,812	(NA)	(NA)	(NA)
1937.....	(NA)	266	(NA)	3,284	4,793	2,375	(NA)	2,929	7,339	3,047	10,386	(NA)	(NA)	(NA)
1935.....	(NA)	277	(NA)	3,118	4,145	2,255	(NA)	2,532	6,588	2,750	9,338	(NA)	(NA)	(NA)
1933.....	(NA)	256	(NA)	2,866	2,990	2,196	(NA)	2,062	5,782	1,855	7,637	(NA)	(NA)	(NA)
1931.....	(NA)	288	(NA)	(NA)	(NA)	2,496	(NA)	3,371	7,650	2,395	10,045	(NA)	(NA)	(NA)
1929.....	(NA)	332	(NA)	3,901	6,428	2,971	(NA)	4,081	11,225	3,811	15,036	(NA)	(NA)	(NA)
1927.....	(NA)	293	(NA)	3,743	6,240	2,668	(NA)	3,842	10,422	3,734	14,156	(NA)	(NA)	(NA)
1925.....	(NA)	323	(NA)	4,077	6,624	2,930	(NA)	4,015	11,251	4,070	15,321	(NA)	(NA)	(NA)
1923.....	(NA)	255	(NA)	3,214	4,865	2,312	(NA)	3,035	8,028	3,103	11,131	(NA)	(NA)	(NA)
1921.....	(NA)	234	(NA)	2,786	4,186	2,068	(NA)	2,657	6,293	2,786	9,079	(NA)	(NA)	(NA)
1919.....	(NA)	382	(NA)	2,964	3,666	2,136	(NA)	2,261	6,188	3,149	9,337	(NA)	(NA)	(NA)
1914.....	(NA)	384	(NA)	2,338	1,734	1,767	(NA)	1,149	3,059	1,426	4,485	(NA)	(NA)	(NA)
1909.....	(NA)	361	(NA)	2,164	1,384	1,651	(NA)	952	2,546	1,127	3,673	(NA)	(NA)	(NA)
1904.....	(NA)	327	(NA)	1,786	1,021	1,506	(NA)	797	2,074	737	2,811	(NA)	(NA)	(NA)
1899.....	(NA)	360	(NA)	1,641	837	1,470	(NA)	696	1,948	663	2,611	(NA)	(NA)	(NA)
INDUSTRY 3955.—CARBON PAPER AND INKED RIBBONS														
1963.....	91	102	52	5,539	31,480	3,819	7,671	17,628	68,353	86,954	155,513	2,277	95	83
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,468	34,545	4,414	8,823	18,660	73,060	93,994	165,899	(4,245)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,423	32,762	4,269	8,238	17,261	70,441	89,015	158,236	2,152	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,529	33,282	4,376	8,354	17,045	69,307	79,944	148,003	1,924	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,141	30,150	4,055	8,144	15,962	63,846	71,591	136,379	1,681	(NA)	(NA)
1958.....	97	103	61	5,818	27,614	3,922	7,854	15,098	58,951	68,017	126,013	2,654	91	89

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3955.—CARBON PAPER AND INKED RIBBONS—Continued														
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,576	24,943	3,791	7,232	13,361	52,696	55,506	105,645	1,986	94	86
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,334	24,002	3,596	7,161	12,399	48,639	50,707	98,716	1,851	(NA)	(NA)
1954.....	80	84	43	4,742	19,344	3,255	6,671	10,757	39,749	46,137	85,666	1,120	93	83
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	4,037	11,907	2,995	5,361	7,023	30,098	27,402	57,500	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	3,735	11,570	2,806	5,641	7,212	28,818	25,652	54,470	(NA)	(NA)	(NA)
1947.....	63	67	34	3,681	10,622	2,558	5,677	6,264	23,615	25,021	48,636	940	90	90
1939.....	(NA)	58	(NA)	3,014	4,970	1,741	(NA)	2,132	10,620	10,157	20,777	(NA)	(NA)	(NA)
1937.....	(NA)	50	(NA)	2,119	3,361	1,627	(NA)	1,991	8,682	9,178	17,860	(NA)	(NA)	(NA)
1935.....	(NA)	56	(NA)	1,954	3,011	1,425	(NA)	1,629	7,193	7,502	14,695	(NA)	(NA)	(NA)
1933.....	(NA)	47	(NA)	1,608	1,988	1,171	(NA)	1,243	6,068	5,157	11,225	(NA)	(NA)	(NA)
1931.....	(NA)	54	(NA)	(NA)	(NA)	1,198	(NA)	1,463	7,442	6,034	13,476	(NA)	(NA)	(NA)
1929.....	(NA)	57	(NA)	1,760	3,233	1,251	(NA)	1,702	9,304	7,991	17,295	(NA)	(NA)	(NA)
1927 <sup>2</sup> .....	(NA)	49	(NA)	1,499	2,628	1,078	(NA)	1,514	7,773	6,020	13,793	(NA)	(NA)	(NA)
INDUSTRY 3961.—COSTUME JEWELRY														
1963.....	910	912	204	21,655	85,268	18,225	34,535	59,760	150,999	132,422	280,478	3,825	95	95
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,340	81,142	18,519	34,672	52,644	136,204	119,316	253,167	1,408	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	21,904	79,682	18,190	34,733	51,519	132,198	124,102	253,183	1,541	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,089	78,453	18,672	35,552	52,330	132,400	115,892	245,708	(2,213)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,285	80,681	20,733	38,227	55,761	134,224	111,837	245,146	(3,132)	(NA)	(NA)
1958.....	1,046	1,051	255	25,286	83,201	21,297	39,994	58,347	138,043	116,037	253,809	5,788	95	96
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	24,292	76,770	21,041	39,304	54,693	115,009	97,125	209,368	(S)	93	94
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	27,635	83,830	23,756	44,290	60,103	130,148	118,120	246,458	(S)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	29,418	85,004	25,439	47,875	60,613	127,585	116,420	239,374	(S)	(NA)	(NA)
1954.....	1,123	1,127	288	27,744	79,017	24,269	46,679	58,445	131,791	117,625	249,560	3,621	95	95
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	26,752	70,847	23,235	44,834	53,831	120,617	79,747	200,364	(NA)	(NA)	(NA)
1947.....	855	859	212	25,371	59,487	22,266	46,532	45,979	107,224	63,070	170,294	3,146	90	91
1939 <sup>2</sup> .....	(NA)	299	(NA)	(NA)	(NA)	12,228	(NA)	10,118	23,439	15,322	38,761	(NA)	(NA)	(NA)
INDUSTRY 3962.—ARTIFICIAL FLOWERS														
1963.....	367	384	70	4,958	16,338	4,266	7,609	12,113	29,194	30,639	60,418	736	97	87
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,231	15,637	4,407	7,878	10,609	28,178	31,638	59,830	(4)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,890	16,909	5,176	9,532	12,033	28,954	34,365	63,514	(4)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,622	19,597	5,834	10,480	13,935	32,028	33,333	65,323	(600)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,959	19,733	5,969	10,987	14,400	34,726	33,253	67,395	(446)	(NA)	(NA)
1958.....	428	431	101	6,770	19,021	5,932	11,038	14,377	34,650	30,465	64,969	886	98	98
1954.....	466	471	103	7,306	17,299	6,690	12,009	13,446	29,924	23,293	52,968	(4)	97	98
1947.....	443	445	91	7,130	13,448	6,569	12,348	10,713	23,813	15,650	39,463	515	97	99
1939.....	(NA)	314	(NA)	7,723	6,522	6,650	(NA)	4,582	11,080	7,424	18,504	(NA)	(NA)	(NA)
1937.....	(NA)	250	(NA)	6,780	5,511	6,216	(NA)	4,330	9,329	7,369	16,698	(NA)	(NA)	(NA)
1933.....	(NA)	171	(NA)	2,915	2,138	2,660	(NA)	1,832	4,572	2,708	7,280	(NA)	(NA)	(NA)
1929.....	(NA)	230	(NA)	3,960	4,912	3,473	(NA)	3,527	9,653	5,914	15,567	(NA)	(NA)	(NA)
1921.....	(NA)	336	(NA)	6,639	7,373	5,947	(NA)	5,966	12,927	10,148	23,075	(NA)	(NA)	(NA)
1919.....	(NA)	440	(NA)	8,627	9,022	7,642	(NA)	7,147	17,822	13,699	31,521	(NA)	(NA)	(NA)
1914.....	(NA)	456	(NA)	10,358	5,274	9,291	(NA)	3,979	9,756	9,309	19,065	(NA)	(NA)	(NA)
1909.....	(NA)	412	(NA)	11,063	5,134	10,016	(NA)	3,974	10,354	13,627	23,981	(NA)	(NA)	(NA)
1899.....	(NA)	224	(NA)	5,616	1,853	5,331	(NA)	1,561	3,530	2,763	6,293	(NA)	(NA)	(NA)
INDUSTRY 3963.—BUTTONS														
1963.....	282	290	69	5,599	23,024	4,728	9,133	16,520	43,751	37,930	81,835	1,040	96	87
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,401	20,523	4,672	9,495	15,809	38,456	33,534	73,867	1,824	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,644	20,081	4,868	9,842	15,111	37,511	32,097	71,558	686	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,621	20,418	4,807	9,559	15,311	37,529	31,650	70,813	825	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,438	21,082	5,532	10,483	16,093	41,478	32,690	74,526	(1,694)	(NA)	(NA)
1958.....	347	356	87	6,462	21,526	5,504	10,425	15,817	37,967	30,618	68,609	1,414	98	88
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,037	20,993	6,237	11,404	16,147	37,063	23,357	59,104	(S)	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,586	25,382	7,574	13,994	19,392	40,407	25,052	65,309	(S)	(NA)	(NA)
1954.....	395	409	109	8,471	23,235	7,430	14,123	17,483	38,219	31,078	69,117	1,139	92	89
1947.....	412	454	122	10,564	22,077	9,556	19,055	17,745	34,695	24,838	59,533	1,131	93	94
1939.....	(NA)	316	(NA)	12,418	11,764	10,972	(NA)	8,623	17,344	12,473	29,817	(NA)	(NA)	(NA)
1937.....	(NA)	291	(NA)	13,081	11,574	12,026	(NA)	9,256	17,713	13,578	31,291	(NA)	(NA)	(NA)
1933.....	(NA)	200	(NA)	10,454	7,661	9,888	(NA)	6,706	13,798	8,614	22,412	(NA)	(NA)	(NA)
1929.....	(NA)	242	(NA)	9,928	11,256	9,034	(NA)	8,814	17,477	11,501	28,978	(NA)	(NA)	(NA)
1921.....	(NA)	346	(NA)	10,794	10,824	9,686	(NA)	8,511	16,128	10,406	26,534	(NA)	(NA)	(NA)
1919.....	(NA)	557	(NA)	17,183	17,122	15,577	(NA)	13,773	25,095	16,745	41,840	(NA)	(NA)	(NA)
1914.....	(NA)	517	(NA)	15,760	8,075	14,511	(NA)	6,424	12,010	8,702	20,712	(NA)	(NA)	(NA)
1909.....	(NA)	444	(NA)	17,485	8,088	16,427	(NA)	6,789	13,167	9,541	22,708	(NA)	(NA)	(NA)
1899.....	(NA)	238	(NA)	9,024	3,123	8,685	(NA)	2,826	4,893	2,803	7,696	(NA)	(NA)	(NA)

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
	INDUSTRY 3964.—NEEDLES, PINS, AND FASTENERS													
1963.....	314	343	149	20,271	89,431	16,675	32,642	64,125	190,868	146,067	337,285	7,428	91	92
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,701	86,979	17,101	31,858	62,809	188,004	135,699	319,005	7,227	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,445	78,177	15,038	28,564	54,985	161,047	122,058	283,533	(6,119)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,298	75,890	14,827	28,163	53,132	154,211	105,092	255,052	7,233	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,677	76,081	15,159	29,105	52,871	147,037	106,751	251,511	(4,456)	(NA)	(NA)
1958.....	340	367	128	17,756	69,873	14,251	26,723	47,957	127,664	93,645	220,517	4,276	93	89
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,207	82,096	16,263	31,349	57,300	137,590	104,471	243,436	6,935	82	93
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,357	87,738	18,065	35,530	62,571	140,729	112,398	253,726	6,146	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	23,645	87,368	19,606	38,895	63,545	139,601	103,264	239,118	5,506	(NA)	(NA)
1954.....	349	357	130	23,152	80,846	18,893	35,935	56,674	118,378	84,194	206,602	4,981	82	91
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	26,468	90,251	22,056	43,365	66,716	124,284	95,320	219,604	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,817	57,541	15,084	28,241	41,927	90,842	48,439	139,281	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	20,320	63,768	17,456	33,281	48,453	104,339	64,579	168,918	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	22,220	68,753	18,647	38,102	51,700	123,545	66,005	189,550	(NA)	(NA)	(NA)
1947.....	273	277	115	22,959	58,791	19,341	39,309	44,328	97,292	49,929	147,221	5,578	91	89
1939.....	(NA)	79	(NA)	(NA)	(NA)	11,139	(NA)	12,428	27,267	14,609	41,876	(NA)	(NA)	(NA)
1937.....	(NA)	52	(NA)	11,211	13,665	9,580	(NA)	10,154	25,949	10,291	36,240	(NA)	(NA)	(NA)
1935.....	(NA)	50	(NA)	11,294	12,474	10,104	(NA)	9,494	23,447	9,383	32,830	(NA)	(NA)	(NA)
1933.....	(NA)	45	(NA)	7,044	7,132	6,412	(NA)	5,768	16,940	5,818	22,758	(NA)	(NA)	(NA)
1931.....	(NA)	46	(NA)	(NA)	(NA)	5,354	(NA)	5,667	15,500	4,842	20,342	(NA)	(NA)	(NA)
1929.....	(NA)	43	(NA)	7,014	8,587	6,242	(NA)	6,566	15,843	6,188	22,031	(NA)	(NA)	(NA)
1927.....	(NA)	45	(NA)	6,328	7,964	5,606	(NA)	6,098	14,402	5,923	20,325	(NA)	(NA)	(NA)
1925.....	(NA)	48	(NA)	6,463	7,357	5,850	(NA)	5,856	12,248	5,926	18,174	(NA)	(NA)	(NA)
1923.....	(NA)	49	(NA)	7,660	8,720	6,834	(NA)	6,703	14,351	7,796	22,147	(NA)	(NA)	(NA)
1921.....	(NA)	68	(NA)	7,358	7,350	6,542	(NA)	5,542	12,733	6,163	18,896	(NA)	(NA)	(NA)
1919.....	(NA)	92	(NA)	10,350	11,316	9,294	(NA)	8,810	19,078	10,227	29,305	(NA)	(NA)	(NA)
1914.....	(NA)	49	(NA)	5,730	3,105	5,339	(NA)	2,507	4,649	3,242	7,891	(NA)	(NA)	(NA)
1909.....	(NA)	49	(NA)	4,951	2,458	4,638	(NA)	2,064	4,365	2,329	6,694	(NA)	(NA)	(NA)
1904.....	(NA)	46	(NA)	4,065	1,849	3,965	(NA)	1,596	3,167	1,584	4,751	(NA)	(NA)	(NA)
1899.....	(NA)	52	(NA)	2,761	1,215	2,653	(NA)	1,067	2,010	1,228	3,238	(NA)	(NA)	(NA)

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>No comparable figures are available for earlier years.

<sup>3</sup>The 1957 Standard Industrial Classification combined in this industry two industries which were separate in the 1945 Standard Industrial Classification. These were: 3952, Lead Pencils and industry 3954, Artists' Materials. The data for 1954 and earlier years for these two industries have been combined.

<sup>4</sup>Less than \$500 thousand.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3951.—PENS AND MECHANICAL PENCILS													
Total.....	139	67	11,562	54,968	9,065	17,937	33,944	119,069	66,615	185,464	4,068	11,179	90,197
New England.....	7	5	669	3,154	534	1,059	1,956	15,477	3,327	18,798	53	644	3,270
Middle Atlantic....	86	37	3,922	14,653	3,276	6,420	10,602	25,728	28,596	54,574	1,387	3,948	23,455
New York.....	66	27	2,294	7,374	2,065	3,878	5,663	12,821	18,237	31,070	697	2,282	10,891
East North Central.	11	6	1,945	12,861	1,230	2,361	6,477	27,475	10,585	38,705	932	2,102	20,781
West North Central.	9	5	2,213	11,069	1,671	3,306	6,448	20,910	6,853	27,775	332	1,721	16,657
South.....	9	6	1,647	7,099	1,376	2,809	4,411	15,917	7,029	22,525	397	1,730	13,888
West.....	17	8	1,166	6,132	978	1,982	4,050	13,562	10,225	23,087	967	1,034	12,146
INDUSTRY 3952.—LEAD PENCILS AND ART GOODS													
Total.....	144	57	6,868	31,944	5,020	9,831	18,394	64,731	56,807	121,630	1,594	6,687	47,909
New England.....	10	4	588	3,727	369	724	1,699	8,199	6,083	14,523	365	902	5,968
Middle Atlantic....	69	27	3,366	15,425	2,459	4,764	9,354	31,486	27,273	58,729	851	2,569	18,093
New York.....	41	15	1,239	5,663	932	1,812	3,352	11,295	11,676	22,807	255	632	4,398
New Jersey.....	18	7	890	3,804	596	1,149	2,282	7,223	6,377	13,567	177	762	4,173
Pennsylvania.....	10	5	1,237	5,958	931	1,803	3,720	12,968	9,220	22,355	419	1,175	9,522
North Central and South.....	48	22	2,745	11,890	2,064	4,096	6,759	23,205	22,452	45,544	342	3,039	21,704
Ohio.....	8	4	623	3,081	368	698	1,428	5,658	5,633	11,363	53	788	5,420
Tennessee.....	11	8	1,173	4,930	932	1,901	2,840	8,755	9,728	18,098	172	1,069	7,758
West.....	17	4	169	902	128	247	582	1,841	999	2,834	36	177	2,144
INDUSTRY 3953.—MARKING DEVICES													
Total.....	616	90	7,625	41,367	5,257	10,657	24,950	85,572	41,670	126,845	2,204	5,447	39,940
New England.....	61	8	810	4,140	615	1,212	2,972	10,815	5,422	15,894	283	440	3,196
Massachusetts....	37	4	590	2,859	460	893	2,115	8,840	4,687	13,177	237	285	2,105
Connecticut.....	14	3	157	909	107	225	562	1,406	520	1,933	27	111	772
Middle Atlantic....	143	21	2,023	11,233	1,449	2,994	7,006	17,785	8,434	26,309	502	1,945	13,379
New York.....	76	9	934	5,089	666	1,353	3,077	8,869	3,889	12,833	321	848	5,898
East North Central.	130	30	1,973	11,459	1,372	2,790	7,001	19,210	12,921	31,966	515	1,428	10,895
Illinois.....	53	19	1,209	6,934	874	1,787	4,270	11,894	9,522	21,269	313	753	5,593
West North Central.	41	10	636	3,172	431	889	1,968	6,517	3,323	9,770	208	323	3,206
Minnesota.....	11	4	245	1,054	179	359	716	2,766	1,126	3,798	58	128	1,271
Missouri.....	14	5	289	1,648	183	387	960	2,845	1,781	4,646	78	128	1,271
South Atlantic.....	72	6	538	2,519	377	764	1,618	6,438	2,388	8,776	175	330	2,311
Georgia.....	10	3	211	933	163	322	617	3,531	979	4,470	45	( <sup>2</sup> )	( <sup>2</sup> )
East South Central.	23	1	241	805	202	428	616	1,656	978	2,638	15	123	588
Tennessee.....	11	1	199	624	182	387	533	1,278	776	2,060	11	( <sup>2</sup> )	( <sup>2</sup> )
West South Central.	36	2	158	728	103	214	459	1,466	653	2,108	26	165	1,253
Texas.....	23	1	104	513	69	145	318	1,007	397	1,401	15	114	921
West.....	110	12	1,246	7,311	708	1,366	3,310	21,685	7,551	29,384	480	693	5,112
California.....	70	8	956	5,568	545	1,025	2,505	18,650	5,973	24,838	416	452	3,510
INDUSTRY 3955.—CARBON PAPER AND INKED RIBBONS													
Total.....	102	52	5,539	31,480	3,819	7,671	17,628	68,353	86,954	155,513	2,277	5,818	58,951
New England.....	8	7	526	2,526	422	825	1,806	9,859	9,179	18,637	222	730	7,711
Middle Atlantic....	43	23	2,763	15,169	1,863	3,836	8,369	30,936	39,531	70,903	1,012	2,894	27,554
New York.....	25	14	1,862	10,605	1,246	2,555	5,478	22,658	28,474	51,124	830	1,991	20,891
New Jersey.....	11	7	699	3,582	460	971	2,235	6,248	8,189	14,826	134	( <sup>2</sup> )	( <sup>2</sup> )
Pennsylvania.....	7	2	202	982	157	310	656	2,030	2,868	4,953	48	( <sup>2</sup> )	( <sup>2</sup> )
North Central.....	23	12	1,501	8,903	1,066	2,018	5,076	19,024	24,919	43,878	642	1,325	15,947
Illinois.....	11	3	580	3,041	430	889	1,904	7,135	10,059	17,025	262	533	7,428
South.....	10	2	169	925	115	249	587	2,078	4,168	6,297	151	222	2,086
West.....	18	8	580	3,957	353	743	1,790	6,456	9,157	15,798	250	647	5,653
California.....	14	5	426	2,636	276	593	1,463	4,324	5,791	10,274	227	( <sup>2</sup> )	( <sup>2</sup> )

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3961.—COSTUME JEWELRY													
Total.....	912	204	21,655	85,268	18,225	34,535	59,760	150,999	132,422	280,478	3,825	25,286	138,043
New England.....	345	98	12,680	50,587	10,876	20,588	35,628	87,621	67,968	154,637	1,651	14,860	77,971
Massachusetts....	33	16	3,213	13,934	2,789	5,577	9,573	30,407	16,938	46,254	365	3,674	24,885
Rhode Island.....	300	78	8,187	30,273	6,992	12,776	21,196	47,653	42,793	90,599	1,078	10,878	50,986
Middle Atlantic....	430	92	7,833	30,156	6,382	12,118	20,727	54,367	57,505	110,052	1,791	8,780	50,158
New York.....	400	87	7,140	27,486	5,808	10,987	18,819	49,772	53,084	101,453	1,650	8,116	46,869
New Jersey.....	21	5	683	2,638	565	1,114	1,879	4,487	4,348	8,419	134	596	2,921
East North Central.	26	5	257	1,040	216	386	826	2,366	1,480	3,794	91	550	4,057
Illinois.....	19	3	149	509	119	221	377	1,472	918	2,344	34	463	2,557
West North Central.	11	1	99	411	77	139	277	482	323	794	6	111	574
South.....	35	2	293	990	257	517	758	1,984	1,878	3,719	67	338	1,304
Mountain.....	16	-	68	147	52	93	103	385	299	668	26	89	493
Pacific.....	49	6	425	1,937	365	694	1,441	3,794	2,969	6,814	193	557	3,483
California.....	38	6	386	1,803	333	635	1,341	3,553	2,821	6,407	173	520	3,278
INDUSTRY 3962.—ARTIFICIAL FLOWERS													
Total.....	384	70	4,958	16,338	4,266	7,609	12,113	29,194	30,639	60,418	736	6,770	34,650
Northeast.....	212	41	3,319	11,638	2,845	5,111	8,525	20,414	21,957	42,893	458	5,079	27,291
New York.....	168	29	2,218	7,855	1,903	3,382	5,775	13,767	13,439	27,616	299	3,465	19,707
Pennsylvania.....	18	9	611	2,252	522	986	1,569	3,525	5,636	9,352	96	718	3,385
East North Central.	51	9	444	1,458	373	668	986	2,468	2,608	5,088	105	720	3,562
Wisconsin.....	16	2	138	292	120	224	232	424	398	826	32	(2)	(2)
West North Central.	23	7	328	809	298	473	677	1,528	1,490	2,883	33	246	871
Missouri.....	6	3	150	406	141	215	361	915	843	1,639	(D)	101	429
South Atlantic.....	28	7	307	844	265	466	654	1,507	1,610	3,160	54	528	2,006
Florida.....	9	3	119	349	100	170	246	572	412	988	24		
East South Central.	5	2	82	250	71	144	186	489	622	1,094	23		
West South Central.	16	2	164	471	147	284	396	1,210	556	1,804	35	197	920
West.....	49	2	314	868	267	463	689	1,578	1,796	3,496	28		
INDUSTRY 3963.—BUTTONS													
Total.....	290	69	5,599	23,024	4,728	9,133	16,520	43,751	37,930	81,835	1,040	6,462	37,967
Northeast.....	240	54	4,421	18,621	3,745	7,285	13,368	34,634	28,698	63,574	716	4,488	28,106
New York.....	197	36	2,877	11,634	2,416	4,746	8,309	22,637	18,228	41,013	439	3,172	20,097
New Jersey.....	17	8	464	1,971	418	749	1,477	3,371	4,733	8,209	40	675	3,944
North Central.....	22	9	677	2,527	526	965	1,579	4,555	4,589	9,067	63	1,131	5,615
Iowa.....	11	8	550	1,972	431	790	1,181	3,525	4,013	7,491	60	(2)	(2)
South Atlantic.....	14	5	417	1,617	382	736	1,345	3,924	4,409	8,320	(D)	(2)	(2)
West South Central.	5	-	14	33	13	26	31	91	32	124	(D)	(2)	(2)
Pacific.....	9	1	70	226	62	121	197	547	202	750	6	89	433
INDUSTRY 3964.—NEEDLES, PINS, AND FASTENERS													
Total.....	343	149	20,271	89,431	16,675	32,642	64,125	190,868	146,067	337,285	7,428	17,756	127,664
New England.....	61	38	5,710	28,963	4,552	8,843	20,392	56,164	34,198	90,921	2,196	6,017	41,563
Rhode Island.....	8	4	891	3,859	654	1,200	2,343	5,957	4,930	10,728	190	887	5,602
Connecticut.....	39	27	4,266	22,611	3,421	6,704	16,057	44,618	27,176	72,642	1,794	4,446	31,118
Middle Atlantic....	225	81	9,281	39,463	7,557	14,716	28,089	71,373	65,681	137,104	2,763	8,509	58,054
New York.....	196	66	6,078	24,426	5,183	9,899	18,228	45,920	48,970	94,663	1,503	5,246	30,780
North Central.....	25	9	2,109	8,449	1,718	3,295	5,428	21,056	14,898	36,360	890	1,910	16,148
Illinois.....	9	6	922	4,010	683	1,221	2,155	7,979	5,835	13,901	279	1,062	7,788
South.....	23	16	2,698	9,891	2,451	4,891	8,421	37,598	27,793	64,777	1,504	1,183	11,040
West.....	9	5	473	2,665	397	897	1,795	4,677	3,497	8,123	75	137	859

Footnotes on next page.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Footnotes for Table 2-39C.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3951, Pens and Mechanical Pencils: New England—Rhode Island, 4 (342); Connecticut, 3 (327); Middle Atlantic—New Jersey, 18 (1,000-2,499); Pennsylvania, 2 (20-99); East North Central—Ohio, 2 (1-19); Illinois, 5 (411); Michigan, 2 (1-19); Wisconsin, 2 (1,000-2,499); West North Central—Minnesota, 2 (20-99); Iowa, 2 (1,000-2,499); Missouri, 3 (491); Nebraska, 1 (1-19); Kansas, 1 (1-19); South Atlantic—Virginia, 3 (240); Georgia, 1 (1,000-2,499); Florida, 1 (1-19); East South Central—Kentucky, 2 (100-249); Tennessee, 1 (1-19); West South Central—Oklahoma, 1 (1-19); Mountain—Colorado, 1 (1-19); Pacific—Washington, 1 (1-19); California, 15 (1,000-2,499).

SIC 3952, Lead Pencils and Art Goods: New England—Massachusetts, 5 (20-99); Connecticut, 5 (567); East North Central—Indiana, 3 (279); Illinois, 8 (100-249); Michigan, 1 (1-19); Wisconsin, 2 (1-19); West North Central—Minnesota, 1 (1-19); Missouri, 4 (100-249); Nebraska, 1 (1-19); Kansas, 2 (20-99); South Atlantic—Georgia, 2 (100-249); Florida, 1 (1-19); East South Central—Kentucky, 1 (100-249); Alabama, 1 (1-19); West South Central—Arkansas, 1 (1-19); Texas, 1 (1-19); Mountain—Colorado, 1 (1-19); Pacific—California, 16 (100-249).

SIC 3953, Marking Devices: New England—Maine, 2 (1-19); New Hampshire, 2 (1-19); Rhode Island, 6 (20-99); Middle Atlantic—New Jersey, 28 (250-499); Pennsylvania, 39 (500-999); East North Central—Ohio, 29 (329); Indiana, 12 (20-99); Michigan, 25 (294); Wisconsin, 11 (20-99); West North Central—Iowa, 7 (20-99); South Dakota, 1 (1-19); Nebraska, 4 (20-99); Kansas, 4 (1-19); South Atlantic—Delaware, 2 (1-19); Maryland, 7 (20-99); District of Columbia, 3 (20-99); Virginia, 7 (20-99); West Virginia, 4 (1-19); North Carolina, 7 (20-99); South Carolina, 3 (1-19); Florida, 29 (100-249); East South Central—Kentucky, 8 (20-99); Alabama, 3 (1-19); Mississippi, 1 (1-19); West South Central—Arkansas, 3 (1-19); Louisiana, 4 (20-99); Oklahoma, 6 (1-19); Mountain—Montana, 1 (1-19); Idaho, 2 (1-19); Colorado, 6 (20-99); New Mexico, 2 (1-19); Arizona, 7 (1-19); Utah, 3 (20-99); Nevada, 1 (1-19); Pacific—Washington, 10 (100-249); Oregon, 5 (20-99); Alaska, 1 (1-19); Hawaii, 2 (1-19).

SIC 3955, Carbon Paper and Inked Ribbons: New England—Massachusetts, 4 (222); Connecticut, 4 (304); East North Central—Ohio, 7 (500-999); Michigan, 2 (100-249); West North Central—Iowa, 1 (100-249); Missouri, 1 (1-19); Nebraska, 1 (1-19); South Atlantic—District of Columbia, 1 (1-19); Georgia, 2 (20-99); East South Central—Tennessee, 1 (1-19); West South Central—Louisiana, 1 (1-19); Texas, 5 (20-99); Mountain—Colorado, 2 (100-249); Pacific—Washington, 1 (1-19); Oregon, 1 (20-99).

SIC 3961, Costume Jewelry: New England—Maine, 1 (1-19); New Hampshire, 2 (1-19); Connecticut, 9 (1,275); Middle Atlantic—Pennsylvania, 9 (1-19); East North Central—Ohio, 4 (20-99); Indiana, 1 (1-19); Michigan, 1 (1-19); Wisconsin, 1 (1-19); West North Central—Minnesota, 2 (1-19); Iowa, 1 (1-19); Missouri, 2 (20-99); South Dakota, 3 (1-19); Nebraska, 3 (1-19); South Atlantic—Maryland, 4 (1-19); Virginia, 2 (1-19); West Virginia, 1 (1-19); North Carolina, 1 (1-19); South Carolina, 1 (1-19); Georgia, 2 (1-19); Florida, 14 (20-99); East South Central—Kentucky, 2 (1-19); Tennessee, 1 (1-19); Alabama, 3 (100-249); Mississippi, 1 (1-19); West South Central—Texas, 3 (20-99); Mountain—Wyoming, 1 (1-19); Colorado, 5 (1-19); New Mexico, 1 (1-19); Arizona, 7 (20-99); Nevada, 2 (1-19); Pacific—Washington, 2 (1-19); Oregon, 1 (1-19); Hawaii, 8 (20-99).

SIC 3962, Artificial Flowers: New England—Maine, 1 (1-19); New Hampshire, 1 (1-19); Massachusetts, 5 (1-19); Rhode Island, 2 (250-499); Middle Atlantic—New Jersey, 17 (121); East North Central—Ohio, 6 (20-99); Indiana, 6 (20-99); Illinois, 18 (100-249); Michigan, 5 (20-99); West North Central—Minnesota, 9 (100-249); Iowa, 5 (20-99); Kansas, 3 (1-19); South Atlantic—Delaware, 1 (20-99); Maryland, 1 (20-99); Virginia, 3 (1-19); West Virginia, 2 (1-19); North Carolina, 12 (134); East South Central—Tennessee, 1 (1-19); Alabama, 3 (20-99); Mississippi, 1 (1-19); West South Central—Louisiana, 1 (1-19); Oklahoma, 4 (20-99); Texas, 11 (144); Mountain—Montana, 3 (1-19); Colorado, 4 (20-99); Utah, 1 (1-19); Pacific—Washington, 10 (20-99); Oregon, 6 (20-99); California, 24 (100-249); Hawaii, 1 (1-19).

SIC 3963, Buttons: New England—Maine, 1 (20-99); Vermont, 1 (20-99); Massachusetts, 10 (20-99); Rhode Island, 1 (1-19); Connecticut, 8 (619); Middle Atlantic—Pennsylvania, 5 (247); East North Central—Illinois, 9 (100-249); West North Central—Missouri, 1 (1-19); North Dakota, 1 (1-19); South Atlantic—Delaware, 3 (1-19); Maryland, 6 (20-99); Virginia, 3 (261); Florida, 2 (20-99); West South Central—Arkansas, 2 (1-19); Texas, 3 (1-19); Pacific—California, 9 (20-99).

SIC 3964, Needles, Pins, and Fasteners: New England—New Hampshire, 2 (100-249); Vermont, 1 (1-19); Massachusetts, 11 (425); Middle Atlantic—New Jersey, 22 (1,668); Pennsylvania, 7 (1,535); East North Central—Ohio, 2 (1-19); Michigan, 3 (1-19); Wisconsin, 3 (100-249); West North Central—Iowa, 1 (1-19); Missouri, 4 (20-99); Nebraska, 1 (500-999); Kansas, 2 (1-19); South Atlantic—Maryland, 1 (20-99); Virginia, 2 (250-499); North Carolina, 3 (250-499); South Carolina, 4 (500-999); Georgia, 4 (500-999); Florida, 3 (1-19); East South Central—Kentucky, 1 (100-249); Mississippi, 2 (250-499); West South Central—Oklahoma, 1 (1-19); Texas, 2 (20-99); Mountain—Colorado, 2 (20-99); Pacific—California, 7 (250-499).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

TABLE 3. Detailed Statistics: 1963

Item	Pens and mechanical pencils (SIC 3951)	Lead pencils and art goods (SIC 3952)	Marking devices (SIC 3953)	Carbon paper and inked ribbons (SIC 3955)	Costume jewelry (SIC 3961)	Artificial flowers (SIC 3962)	Buttons (SIC 3963)	Needles, pins, and fasteners (SIC 3964)
Primary product specialization ratio <sup>1</sup> .....	.90	.87	.84	.95	.95	.97	.96	.91
Coverage ratio <sup>2</sup> .....	.93	.90	.90	.83	.95	.87	.87	.92
Establishments, total.....number..	139	144	616	102	912	384	290	343
With 1 to 19 employees.....do....	72	87	525	50	708	314	221	194
With 20 to 99 employees.....do....	41	39	82	37	162	63	60	105
With 100 employees or more.....do....	26	18	8	15	42	7	9	44
Proprietors and working partners.....do....	40	63	409	19	552	249	174	135
All employees (average for the year).....do....	11,562	6,868	7,625	5,539	21,655	4,958	5,599	20,271
Payroll (all employees), total for year.....\$1,000..	54,968	31,944	41,367	31,480	85,268	16,338	23,024	89,431
Production workers:								
Average for the year.....number..	9,065	5,020	5,257	3,819	18,225	4,266	4,728	16,675
March.....do....	8,532	4,997	5,250	3,831	16,789	3,903	4,775	16,750
May.....do....	8,865	5,017	5,242	3,799	17,052	3,578	4,671	16,886
August.....do....	9,093	5,094	5,199	3,818	19,218	4,362	4,743	16,915
November.....do....	9,783	4,981	5,364	3,831	19,912	5,275	4,759	16,141
Man-hours.....1,000..	17,937	9,831	10,657	7,671	34,535	7,609	9,133	32,642
January-March.....do....	4,163	2,425	2,671	1,939	7,920	1,710	2,300	8,237
April-June.....do....	4,415	2,490	2,714	1,923	8,209	1,641	2,293	8,500
July-September.....do....	4,429	2,467	2,608	1,883	8,797	1,949	2,234	7,863
October-December.....do....	4,930	2,449	2,664	1,926	9,609	2,309	2,306	8,042
Wages.....\$1,000..	33,944	18,394	24,950	17,628	59,760	12,113	16,520	64,125
Cost of materials, etc., total.....do....	66,615	56,807	41,670	86,954	132,422	30,639	37,930	146,067
Materials, parts, containers, and supplies consumed.....do....	62,240	48,209	33,150	72,473	109,015	26,812	33,301	131,109
Cost of resales.....do....	1,483	6,522	7,025	10,795	9,176	3,163	2,871	8,676
Fuels consumed.....do....	201	457	245	327	493	166	261	823
Electric energy:								
Purchased:								
Quantity.....million kw.-hrs..	56	34	26	30	70	17	34	132
Cost.....\$1,000..	837	563	528	659	1,303	294	659	1,970
Generated less sold.....million kw.-hrs..	(D)	(D)	(D)	-	(D)	-	(D)	(D)
Contract work.....\$1,000..	1,854	1,056	722	2,700	12,434	204	838	3,491
Value of shipments (including resales), total.....do....	185,464	121,630	126,845	155,513	280,478	60,418	81,835	337,285
Value of resales.....do....	2,008	10,552	10,423	14,481	18,424	5,243	5,610	15,243
Value added by manufacture, adjusted.....do....	119,069	64,731	85,572	68,353	150,999	29,194	43,751	190,868
Manufacturers' inventories:								
Beginning of year, total.....do....	27,845	26,177	11,596	24,016	31,067	10,175	12,052	50,929
Finished products.....do....	7,404	10,813	4,460	6,423	11,528	5,041	6,896	19,790
Work-in-process.....do....	9,851	4,662	1,345	5,326	9,233	592	2,211	17,708
Materials, supplies, fuel, etc.....do....	10,590	10,702	5,791	12,267	10,305	4,542	2,945	13,431
End of year, total.....do....	29,476	26,369	12,119	23,325	34,176	9,610	11,798	51,768
Finished products.....do....	7,182	10,624	4,967	6,607	13,629	4,546	6,517	19,362
Work-in-process.....do....	10,293	4,758	1,235	4,936	10,075	502	2,436	17,786
Materials, supplies, fuel, etc.....do....	12,001	10,986	5,917	11,782	10,472	4,562	2,845	14,620
Expenditures for plant and equipment, total.....do....	4,277	1,615	2,298	2,416	4,074	779	1,130	7,986
New, total.....do....	4,068	1,594	2,204	2,277	3,825	736	1,040	7,428
New structures and additions to plant.....do....	205	281	380	257	971	223	262	963
New machinery and equipment.....do....	3,863	1,313	1,824	2,020	2,854	513	778	6,465
Used plant and equipment.....do....	209	21	94	139	249	43	90	558
Selected operating ratios:								
Payroll/Total employment.....	4,754	4,658	5,425	5,683	3,938	3,295	4,112	4,411
Production workers/Total employment.....	.78	.73	.69	.69	.84	.86	.84	.82
Man-hours/Production workers.....	1,979	1,958	2,027	2,009	1,895	1,784	1,932	1,958
Production worker wages/Man-hours.....	2.09	1.87	2.34	2.30	1.73	1.59	1.81	1.96
Cost of materials and payrolls/Total value of shipments....	.66	.73	.65	.76	.78	.78	.74	.70
Cost of materials/Total value of shipments.....	.36	.47	.33	.56	.47	.51	.46	.43
Adjusted value added/Total employment.....	10,298	9,425	11,223	12,340	6,973	5,888	7,814	9,416
Salaries and wages/Adjusted value added.....	.46	.49	.48	.46	.56	.56	.53	.47

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3951.—PENS AND MECHANICAL PENCILS											
Establishments.....number..	139	43	11	18	22	19	17	5	1	3	-
All employees:											
Total.....do....	11,562	80	73	229	681	1,339	2,547	<u>2,230</u>	(D)	4,383	-
Payroll.....\$1,000..	54,968	310	218	871	2,652	4,693	11,139	<u>9,482</u>	(D)	25,603	-
Value added, adjusted.....do....	119,069	805	442	1,969	4,996	9,440	30,471	<u>16,935</u>	(D)	54,011	-
Value of shipments.....do....	185,464	2,027	1,264	4,270	11,408	22,548	47,655	<u>27,757</u>	(D)	68,535	-
Capital expenditures, new...do....	4,068	53	25	56	169	373	1,093	<u>909</u>	(D)	1,390	-
INDUSTRY 3952.—LEAD PENCILS AND ART GOODS											
Establishments.....number..	144	53	18	16	27	12	10	7	1	-	-
All employees:											
Total.....do....	6,868	86	125	224	893	934	1,500	<u>3,106</u>	(D)	-	-
Payroll.....\$1,000..	31,944	478	623	917	4,140	4,318	5,423	<u>16,045</u>	(D)	-	-
Value added, adjusted.....do....	64,731	1,016	1,054	2,466	8,971	8,788	10,341	<u>32,095</u>	(D)	-	-
Value of shipments.....do....	121,630	1,887	2,391	4,726	18,837	17,589	19,511	<u>56,689</u>	(D)	-	-
Capital expenditures, new...do....	1,594	28	43	46	231	245	172	<u>829</u>	(D)	-	-
INDUSTRY 3953.—MARKING DEVICES											
Establishments.....number..	616	308	122	96	59	23	6	2	-	-	-
All employees:											
Total.....do....	7,625	474	823	1,324	1,672	1,589	<u>1,743</u>	(D)	-	-	-
Payroll.....\$1,000..	41,367	2,516	4,106	6,940	9,664	8,906	<u>9,235</u>	(D)	-	-	-
Value added, adjusted.....do....	85,572	6,004	7,216	12,011	16,088	14,993	<u>29,260</u>	(D)	-	-	-
Value of shipments.....do....	126,845	8,995	10,605	16,974	23,320	25,369	<u>41,582</u>	(D)	-	-	-
Capital expenditures, new...do....	2,204	193	208	362	363	315	<u>763</u>	(D)	-	-	-
INDUSTRY 3955.—CARBON PAPER AND INKED RIBBONS											
Establishments.....number..	102	21	14	15	20	17	10	4	1	-	-
All employees:											
Total.....do....	5,539	44	100	214	677	1,237	1,479	<u>1,788</u>	(D)	-	-
Payroll.....\$1,000..	31,480	235	519	1,173	3,792	7,259	8,395	<u>10,107</u>	(D)	-	-
Value added, adjusted.....do....	68,353	286	961	2,342	7,483	15,181	20,166	<u>21,934</u>	(D)	-	-
Value of shipments.....do....	155,513	801	2,606	5,977	18,432	33,740	45,355	<u>48,602</u>	(D)	-	-
Capital expenditures, new...do....	2,277	9	28	145	291	655	569	<u>580</u>	(D)	-	-
INDUSTRY 3961.—COSTUME JEWELRY											
Establishments.....number..	912	375	171	162	113	49	30	6	5	1	-
All employees:											
Total.....do....	21,655	694	1,169	2,181	3,487	3,500	4,100	2,216	<u>4,308</u>	(D)	-
Payroll.....\$1,000..	85,268	2,240	3,843	7,292	13,027	13,284	16,466	10,536	<u>18,580</u>	(D)	-
Value added, adjusted.....do....	150,999	5,520	6,902	14,491	24,016	23,043	23,835	16,283	<u>36,909</u>	(D)	-
Value of shipments.....do....	280,478	10,135	14,009	27,124	52,314	47,343	46,213	26,894	<u>56,446</u>	(D)	-
Capital expenditures, new...do....	3,825	477	437	527	670	577	376	244	<u>517</u>	(D)	-
INDUSTRY 3962.—ARTIFICIAL FLOWERS											
Establishments.....number..	384	166	80	68	56	7	6	1	-	-	-
All employees:											
Total.....do....	4,958	325	523	912	1,664	471	<u>1,063</u>	(D)	-	-	-
Payroll.....\$1,000..	16,338	858	1,725	3,047	5,651	1,715	<u>3,342</u>	(D)	-	-	-
Value added, adjusted.....do....	29,194	2,195	3,425	5,546	8,729	3,148	<u>6,151</u>	(D)	-	-	-
Value of shipments.....do....	60,418	4,521	7,898	11,037	18,821	5,452	<u>12,689</u>	(D)	-	-	-
Capital expenditures, new...do....	736	53	94	113	216	98	<u>162</u>	(D)	-	-	-

See footnotes at end of table.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963—Continued

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3963.—BUTTONS											
Establishments.....number..	290	93	67	61	40	20	9	-	-	-	-
All employees:											
Total.....do....	5,599	188	428	833	1,232	1,463	1,455	-	-	-	-
Payroll.....\$1,000..	23,024	620	1,463	2,938	4,602	5,742	7,659	-	-	-	-
Value added, adjusted.....do....	43,751	1,266	2,845	5,415	7,093	13,045	14,087	-	-	-	-
Value of shipments.....do....	81,835	2,015	4,474	9,777	14,432	23,944	27,193	-	-	-	-
Capital expenditures, new...do....	1,040	18	58	170	144	239	411	-	-	-	-
INDUSTRY 3964.—NEEDLES, PINS, AND FASTENERS											
Establishments.....number..	343	80	52	62	77	28	27	9	7	1	-
All employees:											
Total.....do....	20,271	153	342	829	2,405	2,031	4,644	3,059	<u>6,808</u>	(D)	-
Payroll.....\$1,000..	89,431	602	1,213	3,056	9,294	9,492	19,221	13,791	<u>32,762</u>	(D)	-
Value added, adjusted.....do....	190,868	1,509	2,826	5,878	21,172	19,583	55,128	27,552	<u>57,220</u>	(D)	-
Value of shipments.....do....	337,285	3,406	7,090	12,000	43,352	37,138	96,681	46,890	<u>90,728</u>	(D)	-
Capital expenditures, new...do....	7,428	94	192	202	755	773	1,900	836	<u>2,676</u>	(D)	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B-C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3951	Pens and mechanical pencils.....1963..	185,464	164,658	17,557	3,249	90	177,726	164,658	13,068	93
	.....1958..	150,279	135,938	10,841	3,500	93	147,232	137,330	9,902	93
3952	Lead pencils and art goods.....1963..	121,630	96,511	14,385	10,734	87	107,522	96,511	11,011	90
	.....1958..	98,494	82,368	10,855	5,271	88	89,451	82,368	7,083	92
3953	Marking devices.....1963..	126,845	96,035	18,849	11,961	84	107,102	96,035	11,067	90
	.....1958..	59,923	50,499	2,027	7,397	96	58,652	50,499	8,153	86
3955	Carbon paper and inked ribbons....1963..	155,513	133,308	7,072	15,133	95	161,263	133,308	27,955	83
	.....1958..	126,013	106,328	9,958	9,727	91	119,112	106,328	12,784	89
3961	Costume jewelry.....1963..	280,478	243,114	12,671	24,693	95	256,682	243,114	13,568	95
	.....1958..	253,809	227,970	12,727	13,112	95	236,250	227,970	8,280	96
3962	Artificial flowers.....1963..	60,418	52,553	1,828	6,037	97	59,256	52,553	6,703	87
	.....1958..	64,969	58,199	1,343	5,427	98	59,494	58,199	1,295	98
3963	Buttons.....1963..	81,835	71,121	3,290	7,424	96	81,855	71,121	10,734	87
	.....1958..	68,609	62,131	1,332	5,146	98	70,830	62,131	8,699	88
3964	Needles, pins, and fasteners.....1963..	337,285	289,966	28,892	18,427	91	315,198	289,966	25,232	92
	.....1958..	220,517	197,357	14,919	8,241	93	220,845	197,357	23,488	89

Note: See Introduction for an explanation of terms used.



TABLE 5B. **Industry-Product Analysis—Shipments by Product Class and Industry:**  
**1963**

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Pens and mechanical pencils (SIC 3951)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Marking devices (SIC 3953)	Other industries
	<b>PENS AND MECHANICAL PENCILS INDUSTRY</b>					<b>MARKING DEVICES INDUSTRY</b>			
	Total shipments and receipts of the industry.....	(X)	185,464	(X)		Total shipments and receipts of the industry.....	(X)	126,845	(X)
39510	Pens, mechanical pencils, and pen points.....	177,726	164,658	13,068	39530	Hand stamps, stencils and other marking devices.....	107,102	96,035	11,067
	Secondary products.....	(X)	17,557	(X)		Secondary products, total.....	(X)	18,849	(X)
39522	Artists' materials.....	(X)	(X)	2,228	28913	Glue and gelatin.....	(X)	(2-5)	(X)
	Other secondary products.....	(X)	15,329	(X)	30798	Consumer and commercial plastics products, n.e.c.....	(X)	(5-10)	(X)
28993	Essential oils, fireworks and pyrotechnics, chemical and chemical preparations, n.e.c..	(X)	(over 2)	(X)		Miscellaneous receipts, total.....	(X)	11,961	(X)
39530	Hand stamps, stencils, and other marking devices.....	(X)	(over 2)	(X)		Contract and commission work.....	(X)	1,256	(X)
39993	Other miscellaneous fabricated products.....	(X)	(5-10)	(X)		Sales of products bought and resold.....	(X)	10,423	(X)
	Miscellaneous receipts, total.....	(X)	3,249	(X)		Other miscellaneous receipts.....	(X)	282	(X)
	Contract and commission work....	(X)	434	(X)		Listing of other industries with over \$2 million shipments of each primary product class:			
	Sales of products bought and resold.....	(X)	2,008	(X)	39530	3951 Pens, and mechanical pencils	(X)	(X)	(over 2)
	Other miscellaneous receipts.....	(X)	807	(X)					
39510	Listing of other industries with over \$2 million shipments of each primary product class:	(X)	(X)	5,535			All industries	Carbon paper and inked ribbons (SIC 3955)	Other industries
	3952 Lead pencils and art goods.								
		All industries	Lead pencils and art goods (SIC 3952)	Other industries		<b>CARBON PAPER AND INKED RIBBONS INDUSTRY</b>			
						Total shipments and receipts of the industry.....	(X)	155,513	(X)
					39550	Carbon paper, stencil paper, and inked ribbons.....	161,263	133,308	27,955
						Secondary products.....	(X)	7,072	(X)
						Miscellaneous receipts, total.....	(X)	15,133	(X)
						Sales of products bought and resold.....	(X)	14,481	(X)
						Other miscellaneous receipts.....	(X)	652	(X)
						Listing of other industries with over \$2 million shipments of each primary product class:			
39521	Lead pencils and crayons.....	69,155	66,149	3,006	39550	3579 Office machines, n.e.c.....	(X)	(X)	14,128
39522	Artists' materials.....	36,424	28,419	8,005		2752 Printing, lithographic.....	(X)	(X)	(2-5)
39520	Lead pencils and art goods, n.s.k.....	1,943	1,943	-		3571 Computing and related machines.....	(X)	(X)	(over 2)
	Secondary products, total.....	(X)	14,385	(X)		3572 Typewriters.....	(X)	(X)	(over 2)
39510	Pens, mechanical pencils, and pen points.....	(X)	5,535	(X)			All industries	Costume jewelry (SIC 3961)	Other industries
	Other secondary products.....	(X)	8,850	(X)					
	Other brushes.....	(X)	(2-5)	(X)					
	Miscellaneous receipts, total.....	(X)	10,734	(X)					
	Sales of products bought and resold.....	(X)	10,552	(X)					
	Other miscellaneous receipts.....	(X)	182	(X)					
	Listing of other industries with over \$2 million shipments of each primary product class:					<b>COSTUME JEWELRY INDUSTRY</b>			
						Total shipments and receipts of the industry.....	(X)	280,478	(X)
39521	3951 Pens and mechanical pencils	(X)	(X)	2,228	39610	Costume jewelry and costume novelties, except precious metal...	256,682	243,114	13,568

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Costume jewelry (SIC 3961)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Buttons (SIC 3963)	Other industries
	<b>COSTUME JEWELRY INDUSTRY—Con.</b>					<b>BUTTONS INDUSTRY—Continued</b>			
39112	Secondary products, total.....	(X)	12,671	(X)		Miscellaneous receipts, total.....	(X)	7,424	(X)
	Jewelry, made of precious metals, except platinum and carat gold..	(X)	5,327	(X)		Contract and commission work.....	(X)	1,707	(X)
39642	Other secondary products.....	7,344	(X)	(X)		Sales of products bought and resold.....	(X)	5,610	(X)
	Needles, pins, fasteners (except slide) and similar notions.....	(X)	(2-5)	(X)		Other miscellaneous receipts.....	(X)	107	(X)
	Miscellaneous receipts, total.....	(X)	24,693	(X)		Listing of other industries with over \$2 million shipments of each primary product class:			
	Contract and commission work.....	(X)	5,165	(X)	39630	3079 Plastics products, n.e.c....	(X)	(X)	3,904
	Sales of products bought and resold.....	(X)	18,424	(X)		3964 Needles, pins, and fasteners	(X)	(X)	2,364
	Other miscellaneous receipts.....	(X)	1,104	(X)					
39610	Listing of other industries with over \$2 million shipments of each primary product class:	(X)	(X)	11,410			All industries	Needles, pins, and fasteners (SIC 3964)	Other industries
	3911 Jewelry, precious metal....								
		All industries	Artificial flowers (SIC 3962)	Other industries		<b>NEEDLES, PINS, AND FASTENERS INDUSTRY</b>			
	<b>ARTIFICIAL FLOWERS INDUSTRY</b>					Total shipments and receipts of the industry.....	(X)	337,285	(X)
	Total shipments and receipts of the industry.....	(X)	60,418	(X)	39641	Primary products.....	315,198	289,966	25,232
39620	Feathers, plumes and artificial flowers.....	59,256	52,553	6,703	39642	Zipper and slide fasteners.....	143,230	142,246	984
	Secondary products.....	(X)	1,828	(X)	39640	Needles, pins, fasteners (except slide) and similar notions.....	155,672	131,586	24,086
	Miscellaneous receipts, total.....	(X)	6,037	(X)		Needles, pins, and fasteners, n.s.k.	16,296	16,134	162
	Sales of products bought and resold.....	(X)	5,243	(X)		Secondary products.....	(X)	28,892	(X)
	Other miscellaneous receipts.....	(X)	794	(X)	3429-29630	Hardware, n.e.c.....	(X)	6,586	(X)
		All industries	Buttons (SIC 3963)	Other industries		Buttons, and parts, except of precious or semiprecious metals and stones.....	(X)	2,364	(X)
	<b>BUTTONS INDUSTRY</b>					Other secondary products.....	(X)	19,942	(X)
	Total shipments and receipts of the industry.....	(X)	81,835	(X)	23890	Apparel, n.e.c.....	(X)	(2-5)	(X)
39630	Buttons and parts, except of precious or semiprecious metals and stones.....	81,855	71,121	10,734	34618	Other stamped and pressed metal end products.....	(X)	(2-5)	(X)
39642	Secondary products.....	(X)	3,290	(X)	34990	Fabricated metal products, n.e.c.....	(X)	(2-5)	(X)
	Needles, pins, fasteners (except slide) and similar notions.....	(X)	2,174	(X)		Miscellaneous receipts, total.....	(X)	18,427	(X)
	Other secondary products.....	(X)	1,116	(X)		Contract and commission work.....	(X)	1,432	(X)
						Sales of products bought and resold.....	(X)	15,243	(X)
						Other miscellaneous receipts.....	(X)	1,752	(X)
						Listing of other industries with over \$2 million shipments of each primary product class:			
					39642	3963 Buttons.....	(X)	(X)	2,174
						3452 Bolts, nuts, rivets, and washers.....	(X)	(X)	(5-10)
						3461 Metal stampings.....	(X)	(X)	(over 2)
						3961 Costume jewelry.....	(X)	(X)	(2-5)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3951- --	PENS, PEN POINTS, FOUNTAIN PENS, BALL POINT PENS, MECHANICAL PENCILS AND PARTS.....		(X)	177,726	(X)	147,232
	Pens:					
39510 01	Fountain pens, complete (all types, except ball point): <sup>1</sup>					
39510 05	\$1.00 each and under (retail price).....	1,000 units...	42,818	8,346	13,377	3,878
39510 06	\$1.01 to \$5.00 each (retail price).....	...do.....	6,547	8,257	13,812	28,995
	Over \$5.00 each (retail price).....	...do.....	2,461	9,478		
39510 13	Ball point type pens, complete: <sup>1</sup>					
39510 14	\$1.25 each and under (retail price).....	...do.....	505,728	30,622	297,998	31,478
39510 18	\$1.26 to \$5.00 each (retail price).....	...do.....	168,470	24,645	43,223	24,258
	Over \$5.00 each (retail price).....	...do.....	63,272	26,168		
39510 19	Desk pen sets, including fountain pen type, ball point type, and inkwell reservoir (dip) type.....	...do.....	5,020	2,847	2,756	4,603
	Mechanical pencils: <sup>1</sup>					
39510 53	\$1.50 each and under (retail price).....	...do.....	35,747	5,453	38,823	5,813
39510 55	Over \$1.50 each (retail price).....	...do.....	18,172	9,168	18,435	9,301
39510 63	Miscellaneous pen and mechanical pencil parts, for sale separately, such as pen holders, pen points (all types), renewal parts, etc.....		(X)	24,536	(X)	16,321
39510 71	Refill ink cartridges for ball point pens.....		(X)	20,385	(X)	15,551
39510 00	Pens, pen points, fountain pens, ball point pens, mechanical pencils and parts, n.s.k.....		(X)	7,821	(X)	7,034
3952- --	LEAD PENCILS, CRAYONS, AND ARTISTS' MATERIALS.....		(X)	107,522	(X)	89,451
39521 --	Lead pencils and crayons, total.....		(X)	69,155	(X)	65,317
	Nonmechanical pencils, and pencil leads:					
	Pencils:					
39521 11	Black lead.....	1,000 gross...	11,062	31,275	9,239	28,888
39521 15	Other (indelible, colored, etc.).....	...do.....	1,354	8,998	1,542	10,724
39521 23	Pencil leads, including refill leads for mechanical pencils, for sale separately.....		(X)	6,963	(X)	10,820
39521 53	Crayons, including chalk, except artists' and tailors'.....		(X)	21,653	(X)	13,794
39521 00	Lead pencils and crayons, n.s.k.....		(X)	266	(X)	1,091
39522 11	Artists' materials, including airbrushes, drawing tables and boards, palettes, sketch boxes, pantographs, artists' colors and waxes, pyrography goods, drawing inks, and materials.....		(X)	36,424	(X)	24,134
39520 00	Lead pencils, crayons, and artists' materials, n.s.k.....		(X)	1,943	(X)	(NA)
3953- --	HAND STAMPS, STENCILS AND OTHER MARKING DEVICES.....		(X)	107,102	(X)	58,652
39530 11	Rubber stamps.....		(X)	19,201	(X)	12,305
39530 31	Metal stamps, marking dies, and seals, including hand presses for seals and marking dies.....		(X)	22,345	(X)	13,977
39530 41	Felt-tipped markers.....		(X)	12,885		
39530 98	Other marking devices, such as stencils, letters, figures and numerals, stamp pads, branding irons, etc.....		(X)	37,136	(X)	17,264
39530 00	Hand stamps, stencils, and other marking devices, n.s.k.....		(X)	15,535	(X)	15,106
3955- --	CARBON PAPER AND INKED RIBBONS.....		(X)	161,263	(X)	119,112
	Inked ribbons:					
39550 11	Typewriter (all types).....	1,000 doz....	3,481	23,952	3,040	19,108
39550 19	Other inked ribbons (all types).....	...do.....	1,448	16,973	1,656	11,020
	Coated carbon paper (in roll and sheet):					
39550 31	One time.....		(X)	36,531	(X)	22,801
39550 35	Other than one time.....		(X)	36,444	(X)	29,013
	Stencil paper:					
39550 61	Spirit and gelatin process master copies (include master sets).....		(X)	19,040	(X)	18,180
39550 98	All other, including mimeograph stencil paper.....		(X)	25,580	(X)	14,201
39550 00	Carbon paper and inked ribbons, n.s.k.....		(X)	2,743	(X)	4,789

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Value of shipments including interplant transfers (\$1,000)				
		1963	1958			
3961- --	COSTUME JEWELRY AND COSTUME NOVELTIES, EXCEPT PRECIOUS METAL.....	256,682	236,250			
	Base metal, whether or not electroplated with gold, silver, chromium, etc:					
39610 11	Rings and ring mountings.....	2,065	4,071			
39610 21	Men's jewelry (excluding watch attachments).....	33,461	28,434			
39610 31	Women's and children's jewelry and costume novelties (excluding watch attachments).....	97,852	100,640			
39610 41	Watch attachments (bracelets for watches).....	14,565	8,961			
39610 51	Fraternal, college, and school jewelry and emblems, including military insignia (excluding rings)...	10,300	4,130			
39610 61	Religious jewelry, such as rosaries, chaplets, religious medals, crosses, etc.....	5,531	4,147			
39610 71	Other jewelry worn or carried about the person, except cigar and cigarette cases and lighters, compacts, and vanity cases.....	6,001	9,202			
39610 81	Imitation pearls (including necklaces) made of glass, plastic or other materials.....	21,284	13,807			
39610 91	Compacts and vanity cases, except precious metals and all leather.....	9,500	18,736			
39610 98	Other costume jewelry and costume novelties made of plastics, wood, leather, etc.....	21,050				
39610 00	Costume jewelry and costume novelties, except precious metal, n.s.k.....	35,073	44,122			
	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
39620 11	FEATHERS, PLUMES, AND ARTIFICIAL FLOWERS (EXCEPT GLASS).....		(X)	59,256	(X)	59,494
3963- --	BUTTONS.....		(X)	81,855	(X)	70,830
	Buttons and parts, except of precious or semiprecious metals and precious or semiprecious stones:					
	Metal:					
39630 11	Sew-on type.....		(NA)	7,980	(NA)	5,825
39630 15	Other metal buttons, including mechanically applied types, etc.....		(NA)	4,622	(NA)	3,272
	Plastic:					
39630 21	Casein and casein compound.....	1,000 gross...	3,766	5,049	(NA)	4,935
	Other plastics:					
39630 23	Thermosetting.....	..do.....	81,214	27,068	57,061	19,655
39630 25	Thermoplastic.....	..do.....	16,250	8,285	(NA)	6,537
	Pearl or shell:					
39630 31	Fresh water.....	..do.....	(NA)	883	2,282	3,184
39630 35	Ocean.....	..do.....	456	1,672	(NA)	4,733
39630 61	Button blanks or molds, backs, and parts for sale as such.....		(X)	11,038	(X)	8,737
39630 98	Other buttons, fabric covered, wood, bone, and hoof, vegetable ivory, leather, etc.....		(X)	4,619	(X)	4,712
39630 00	Buttons, n.s.k.....		(X)	10,639	(X)	9,240
3964- --	NEEDLES, PINS, AND FASTENERS.....		(X)	315,198	(X)	220,845
39641 11	Zippers or slide fasteners (each 12 inches is one unit when sold in continuous chain).....	Million units.	2,223	143,230	1,473	87,251
39642 --	Needles, pins, fasteners (except slide), and similar notions.....		(X)	155,672	(X)	112,037
	Snap fasteners:					
39642 11	Sew-on type.....		(NA)	1,035	(NA)	1,023
39642 19	Other snap fasteners (such as 4-part, riveted, or mechanically applied type, etc.).....		(NA)	18,620	(NA)	18,558
39642 21	Metal buckles for wearing apparel, including those covered with fabric or other material, but excluding costume jewelry.....		(X)	14,749	(X)	13,070
39642 31	Other fasteners, buckles (except shoe) and apparel trimming (hooks and eyes, rivets and burrs, trimming, plastic buckles, etc.).....		(X)	28,691	(X)	19,803
39642 41	Tape (hook and eye and snap) fasteners.....	Gross yards...	193,831	6,985	187,332	5,586
39642 51	Hair curlers (except rubber, and except those designed for beauty parlor use).....		(NA)	31,613	(NA)	10,368
	Needles, except hypodermic, phonograph, and styli:					
	Knitting machine:					
39642 63	Spring-beard.....	Thousand.....	-	-	(X)	(2)
39642 61	Latch.....	..do.....	201,428	13,462		
39642 65	Sewing machine (household and industrial dry-thread).....				149,673	6,284
39642 69	Other needles, except phonograph needles and styli (including shoe machine, hand sewing, hand knitting, crocheting, darning, etc.).....		(X)	8,817	(X)	210,316

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
	NEEDLES, PINS, AND FASTENERS—Continued					
	Needles, pins, fasteners (except slide), and similar notions—Con.					
	Pins (except jewelry):					
39642 81	Common or toilet, including dressmakers' pins.....	1,000 pounds..	2,736	5,029	2,373	3,702
39642 83	Hair pins, metal, "bobby" type.....	.....do.....	7,134	7,941	9,369	12,119
39642 87	Safety pins.....	1,000 gross...	10,765	3,371	9,161	2,989
39642 89	Other pins, hat pins, glasshead pins, plastic, and metal hairpins other than metal bobby type, etc.....	.....	(X)	5,177	(X)	<sup>3</sup> 8,219
39642 00	Needles, pins, fasteners (except slide) and similar notions, n.s.k.....	.....	(X)	10,182	(X)	( <sup>4</sup> )
39640 00	Needles, pins, fasteners, n.s.k.....	.....	(X)	16,296	(X)	<sup>4</sup> 21,557

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

<sup>1</sup>Manufacturers of fountain pens, ball point pens, and mechanical pencils classified their shipments by categories based on retail selling price. However, the reported values represent the new selling values, f.o.b. plant. New selling values exclude discounts, allowances, freight charges and excise taxes.

<sup>2</sup>In 1958, latch and spring-beard knitting machine needles are included with "other needles."

<sup>3</sup>Includes \$617 thousand of "metal hairpins, other than bobby type."

<sup>4</sup>In 1958, product code 3964200 has been included with code 3964000.

TABLE 6B. **Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value
395--	Pens, pencils and office supplies.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
3951-	Pens, pen points, fountain pens, ball point pens, mechanical pencils and parts.....1963..	216	63
	.....1958..	141	83
3952-	Lead pencils and art goods.....1963..	( <sup>1</sup> )	( <sup>1</sup> )
	.....1958..	( <sup>1</sup> )	( <sup>1</sup> )
39521	Lead pencils and crayons.....1963..	152	88
	.....1958..	99	129
3955-	Carbon paper and inked ribbons.....1963..	160	110
	.....1958..	130	100
396--	Costume jewelry and notions.....1963..	( <sup>2</sup> )	( <sup>2</sup> )
	.....1958..	( <sup>2</sup> )	( <sup>2</sup> )
3964-	Needles, pins, and fasteners.....1963..	168	105
	.....1958..	128	98
39641	Zipper or slide fasteners.....1963..	193	100
	.....1958..	128	92
39642	Needles, pins, fasteners, (except slide) and similar notions.....1963..	140	116
	.....1958..	106	113

<sup>1</sup>Not shown because comparable quantity data were not obtained for hand stamps, stencils and other marking devices (products of industry 3953) and artists' materials (product class 39522).

<sup>2</sup>Not shown because comparable quantity data were not obtained for costume jewelry and costume novelties, except precious metal (products of industry 3961), artificial flowers (products of industry 3962) and a significant portion of buttons (products of industry 3963).

TABLE 6C. **Product Classes—Value Shipped by All Manufacturing Establishments, 1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
39510	Pens, mechanical pencils, and pen points.....	177,726	164,747	162,787	160,891	144,864	147,232	118,110	137,574
3952-	Lead pencils and art goods.....	107,522	96,847	100,317	103,463	97,204	89,451	76,918	59,521
39521	Lead pencils and crayons.....	69,155	72,963	68,282	77,509	71,938	65,317	50,986	45,492
39522	Artists' materials.....	36,424	23,884	32,035	25,954	25,266	24,134	25,932	14,029
39520	Lead pencils and art goods, n.s.k.....	1,943	-	-	-	-	-	-	-
39530	Hand stamps, stencils, and other marking devices.....	107,102	86,874	79,682	78,501	71,378	58,652	47,720	26,868
39550	Carbon paper, stencil paper, and inked ribbons.....	161,263	169,943	155,516	137,403	123,799	119,112	90,990	49,068
39610	Costume jewelry and costume novelties, except precious metal.....	256,682	229,112	238,502	229,611	226,451	236,250	235,232	(NA)
39620	Feathers, plumes, and artificial flowers.....	59,256	53,121	58,708	60,205	61,605	59,494	48,603	38,291
39630	Buttons and parts, except of precious or semiprecious metals and stones.....	81,855	76,768	73,595	73,468	77,530	70,830	63,983	57,662
3964-	Needles, pins, and fasteners.....	315,198	292,810	259,345	234,771	230,823	220,845	176,981	147,137
39641	Zipper and slide fasteners.....	143,230	105,744	88,041	78,542	100,522	87,251	74,421	57,630
39642	Needles, pins, fasteners (except slide), and similar notions.....	155,672	160,907	144,516	130,141	(S)	112,037	93,877	82,022
39640	Needles, pins, and fasteners, n.s.k.....	16,296	(26,159)	(26,788)	(26,088)	(S)	21,557	8,683	7,485

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

TABLE 6D. **Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
LEAD PENCILS AND CRAYONS (39521)			NEEDLES, PINS, FASTENERS (EXCEPT SLIDE), AND SIMILAR NOTIONS (39642)			ZIPPER AND SLIDE FASTENERS (39641)		
United States, total...	69,155	65,317	United States, total...	155,672	112,037	United States, total...	143,230	87,251
Middle Atlantic.....	29,646	22,771	Northeast.....	82,018	60,721	Northeast.....	6,535	(Z)
New York.....	5,366	3,944	Massachusetts.....	12,502	11,381	Middle Atlantic.....	80,194	( <sup>2</sup> )
New Jersey.....	9,630	6,954	Connecticut.....	62,359	42,267	New York.....	53,387	30,459
Pennsylvania.....	14,650	11,873	Middle Atlantic.....	36,236	30,726	South.....	52,927	18,241
East North Central.....	6,213	( <sup>2</sup> )	New York.....	23,807	17,840	All other divisions.....	3,574	( <sup>2</sup> )
West North Central.....	3,447	( <sup>2</sup> )	North Central.....	26,467	( <sup>2</sup> )			
South.....	19,094	( <sup>2</sup> )	South and West.....	10,951	( <sup>2</sup> )			
All other divisions.....	10,755	( <sup>2</sup> )						

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million reported.

<sup>1</sup>For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 39521, Connecticut, Ohio, Missouri, Kansas, Georgia, Kentucky, and Tennessee; 39641, Rhode Island, Connecticut, New Jersey, Pennsylvania, Missouri, Virginia, North Carolina, South Carolina, Georgia, Mississippi, Texas, and California; 39642, Rhode Island, New Jersey, Pennsylvania, Illinois, Wisconsin, Nebraska, South Carolina, Kentucky, and California.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.



TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963				
			Quantity	Delivered cost (\$1,000)			
		INDUSTRY 3963.—BUTTONS					
	Materials, components, parts, containers and supplies, total.....		(X)	33,301			
	Mills shapes and forms:						
331001	Carbon steel.....	Short tons.....	1,451	429			
331020	Alloy steel.....	...do.....	170	238			
331031	Stainless steel.....	...do.....	}	(NA)			
335208	Aluminum and aluminum-base alloy.....	1,000 lbs.....			(D)		
335003	Copper and copper-base alloy.....		(D)	(D)			
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	20,553			
976000	Materials, etc., n.s.k.....		(X)	11,751			
	Material	Unit of measure	1963	1958			
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	
		INDUSTRY 3964.—NEEDLES, PINS, AND FASTENERS					
	Materials, components, parts, containers and supplies, total....		(X)	131,109	(X)	84,503	
	Mills shapes and forms:						
331001	Carbon steel.....	Short tons.....	27,974	8,576	}	(NA)	
331020	Alloy steel.....	...do.....	4,399	1,178			211,000
331031	Stainless steel.....	...do.....	720	1,203			
335208	Aluminum and aluminum-base alloy.....	1,000 lbs.....	11,025	6,707	(NA)	(NA)	
335003	Copper and copper-base alloy.....	...do.....	18,778	11,743	27,829	14,095	
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	79,791	(X)	43,728	
976000	Materials, etc., n.s.k. <sup>1</sup> .....		(X)	21,911	(X)	15,680	

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.

<sup>1</sup>Represents (a) total cost of materials for small establishments reporting on "short forms" when separate figures for individual materials consumed were not requested and (b) total costs of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

<sup>2</sup>Represents estimates published in MC58(1)-7 (Supplement), "Selected Materials Consumed," from data collected in a supplemental survey on Form MA-131, "Consumption of Materials, Parts, Containers and Supplies During 1958." This survey was limited to large establishments in selected chemical, machinery and equipment industries and resulted in estimates which are subject to greater error than are the figures on materials consumption collected as a regular part of the census of manufactures.

**TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962**

Item	Pens and mechanical pencils (SIC 3951)	Lead pencils and art goods (SIC 3952)	Marking devices (SIC 3953)	Carbon paper and inked ribbons (SIC 3955)	Costume jewelry (SIC 3961)	Artificial flowers (SIC 3962)	Buttons (SIC 3963)	Needles, pins, and fasteners (SIC 3964)
Total cost of purchased fuels and electric energy.....\$1,000..	1,239	1,095	781	1,139	1,839	645	1,050	2,611
Total cost of purchased fuels.....do....	283	461	290	413	729	222	302	884
Bituminous coal, lignite, and anthracite:								
Quantity.....1,000 short tons..	(S)	15	-	(S)	-	(S)	(S)	(S)
Cost.....\$1,000..	(S)	132	-	(S)	-	(S)	(S)	(S)
Coke and breeze:								
Quantity.....1,000 short tons..	-	-	-	-	-	(S)	-	(S)
Cost.....\$1,000..	-	-	-	-	-	(S)	-	(S)
Fuel oil (distillate and residual):								
Quantity.....1,000 barrels of 42 gallons..	14	58	7	61	57	(S)	36	113
Cost.....\$1,000..	73	204	29	165	248	(S)	159	347
Gas (natural, manufactured, still, blast furnace, and coke oven):								
Quantity.....million cu.ft..	187	137	96	181	62	(S)	(S)	405
Cost.....\$1,000..	114	77	82	137	57	(S)	(S)	230
Other fuels.....do....	(S)	48	179	(S)	424	102	101	259
Electric energy:								
Purchased:								
Quantity.....million kw.-hrs..	61	42	20	38	59	23	50	100
Cost.....\$1,000..	956	634	491	726	1,110	423	748	1,727
Generated less sold.....million kw.-hrs..	-	-	-	-	-	-	-	(S)
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....1,000 hp..	38	24	13	24	39	10	18	56
Prime movers, total.....do....	(Z)	2	(Z)	4	(Z)	(Z)	(Z)	2
Driving generators.....do....	(Z)	1	(Z)	1	(Z)	-	-	1
Not driving generators.....do....	-	1	(Z)	3	(Z)	(Z)	(Z)	1
Electric motors, total.....do....	38	23	12	20	38	10	17	54
Driven by purchased energy.....do....	38	23	12	20	38	10	17	54
Driven by energy generated at establishment.....do....	-	-	-	-	-	-	-	(Z)
Aggregate horsepower per 100 production workers.....	470	528	286	544	211	227	385	327

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3952-	LEAD PENCILS AND ART GOODS										
	Entire industry.....	144	6,868	31,944	5,020	9,831	18,394	64,731	56,807	121,630	1,594
	Establishments with—										
	90% or more specialization..	115	3,619	15,664	2,705	5,277	9,964	34,001	29,504	63,803	708
	75-89% specialization.....	12	1,490	7,947	1,000	1,990	3,643	16,953	11,640	28,589	469
39521	Lead pencils and crayons (primary product class of estab.).....	46	4,966	22,949	3,678	7,224	13,235	46,844	37,124	84,044	1,204
	Establishments with—										
	90% or more specialization....	25	1,842	7,469	1,401	2,756	4,833	14,874	14,104	28,894	266
	75-89% specialization.....	12	1,891	9,959	1,321	2,596	5,050	23,442	13,862	37,668	629
39522	Artists' materials (primary product class of estab.).....	63	1,798	8,472	1,256	2,437	4,726	16,916	18,770	35,703	363
	Establishments with—										
	90% or more specialization....	52	1,075	4,982	735	1,423	2,834	9,784	9,857	19,661	184
3964-	NEEDLES, PINS, AND FASTENERS										
	Entire industry.....	343	20,271	89,431	16,675	32,642	64,125	190,868	146,067	337,285	7,428
	Establishments with—										
	90% or more specialization..	308	15,133	63,325	12,567	24,450	46,142	140,429	110,546	251,506	5,454
	75-89% specialization.....	14	2,877	14,595	2,390	4,893	10,100	29,739	23,242	53,173	802
39641	Zipper and slide fasteners (primary product class of estab.)....	133	8,908	36,998	7,367	14,561	27,008	79,530	73,057	153,028	2,990
39642	Needles, pins, fasteners (except slide) and similar notions (primary product class of estab.)....	109	10,210	48,544	8,336	16,295	34,122	102,378	65,177	167,394	4,065
	Establishments with—										
	90% or more specialization....	79	5,989	27,696	4,908	9,419	19,576	59,955	34,324	94,129	2,253
	75-89% specialization.....	14	2,159	10,084	1,844	2,846	7,048	21,275	17,019	38,175	682

## MISCELLANEOUS MANUFACTURING INDUSTRIES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 3981—Brooms and Brushes
- 3982—Linoleum, Asphalted-Felt-Base, and Other Hard Surface Floor Coverings, Not Elsewhere Classified
- 3983—Matches
- 3984—Candles
- 3987—Lamp Shades
- 3988—Morticians' Goods
- 3992—Furs, Dressed and Dyed
- 3993—Signs and Advertising Displays
- 3995—Umbrellas, Parasols, and Canes
- 3999—Manufacturing Industries, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 3981—BROOMS AND BRUSHES

This industry comprises establishments primarily engaged in manufacturing household, industrial, and street sweeping brooms; and brushes such as paint brushes, toothbrushes, toilet brushes, and household and industrial brushes. For a detailed list of products of industry 3981, refer to table 6A, product codes 3981113 to 3981398.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Brooms and Brushes Industry totaled \$321 million. This amount included shipments of brooms and brushes (primary products) valued at \$231 million, shipments of other products (secondary products) valued at \$27 million, and miscellaneous receipts (mainly products bought and resold) at \$63 million.

This industry's shipments of brooms and brushes represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was also 89 percent. Secondary products shipped by this industry in 1963 included housefurnishings (\$8 million).



While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 60 percent of the total industry shipments are represented by plants specializing in 39813, Other brushes; and 25 percent in 39812, Paint and varnish brushes.

Shipments of brooms and brushes by this industry represented 93 percent of all shipments of these products (\$248 million) by all industries. In 1958 the coverage ratio was 94 percent. Other industries shipping brooms and brushes include industry 2392, Housefurnishings, N.E.C., \$2 million.

The production index for the primary products of the industry increased to 135 in 1963 from the 1958 level of 107. The unit value index for 1963 was 101 compared to 107 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3982—LINOLEUM, ASPHALTED-FELT-BASE, AND OTHER HARD SURFACE FLOOR COVERINGS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing linoleum, asphalted-felt-base, and other hard surface floor coverings, n.e.c. Establishments primarily engaged in manufacturing rubber floor coverings are classified in industry 3069, and cork floor and wall tile in industry 2499. For a detailed list of products of industry 3982, refer to table 6A, product codes 3982111 to 3982291.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Hard Surface Floor Coverings Industry totaled \$204 million. This amount included shipments of hard surface floor coverings (primary products) valued at \$165 million, shipments of other products (secondary products) valued at \$37 million, and miscellaneous receipts (mainly sales of products bought and resold) at \$2 million.

This industry's shipments of hard surface floor coverings represented 82 percent of its total product shipments. The industry specialization ratio in 1958 was 84 percent.

Shipments of hard surface floor coverings by this industry represented 98 percent of all shipments of these products (\$168 million) by all industries. In 1958 the coverage ratio was also 98 percent.

The production index for the primary products of the industry decreased to 95 in 1963 from the 1958 level of 98. The unit value index for 1963 was 114 compared to 100 in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3983—MATCHES

This industry comprises establishments primarily engaged in manufacturing matches, regardless of the material used. For a detailed list of products of industry 3983, refer to table 6A, product codes 3983012 to 3983061.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Match Industry totaled \$64 million. As in 1958, this consisted almost entirely of primary products (matches). Furthermore in 1963 as in 1958, this industry accounted for approximately all of the matches produced in manufacturing industries.

### 3984—CANDLES

This industry comprises establishments primarily engaged in manufacturing candles from fatty acids or from mineral and animal waxes. For a detailed list of products of industry 3984, refer to table 6A, product code 3984011.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Candle Industry totaled \$46 million. This amount included shipments of candles (primary products) valued at \$41 million, shipments of other products (secondary products) valued at \$2 million, and miscellaneous receipts (mainly products bought and resold) at \$2 million.

This industry's shipments of candles represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was 94 percent.

Shipments of candles by this industry represented 94 percent of all shipments of these products (\$44 million) by all industries. In 1958 the coverage ratio was 95 percent.

### 3987—LAMP SHADES

This industry comprises establishments primarily engaged in manufacturing lamp shades of all materials, except glass (industry 3229), and metal (industry 3642). For a detailed list of products of industry 3987, refer to table 6A, product code 3987011.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Lamp Shade Industry totaled \$37 million. This amount included shipments of lamp shades (primary products) valued at \$35 million, shipments of other products (secondary products) valued at \$2 million, and miscellaneous receipts (mainly contract work on materials owned by others) at less than \$1 million.

This industry's shipments of lamp shades represented 96 percent of its total product shipments. The industry specialization ratio in 1958 was 97 percent.

Shipments of lamp shades by this industry represented 98 percent of all shipments of these products (\$36 million) by all industries. In 1958 the coverage ratio was 97 percent.

### 3988—MORTICIANS' GOODS

This industry comprises establishments primarily engaged in manufacturing caskets, coffins, burial cases, and coffin shipping cases, whether of wood or other material, except concrete (industry 3272); morticians' supplies and accessories, such as burial garments, gloves, slippers, casket linings, and embalming fluids; and morticians' paraphernalia and equipment. For a detailed list of products of industry 3988, refer to table 6A, product codes 3988111 to 3988398.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Morticians' Goods Industry totaled \$290 million. This amount included shipments of morticians' goods (primary products) valued at \$262 million, shipments of other products (secondary products) valued at \$14 million, and miscellaneous receipts (mainly products bought and resold) at \$14 million.



This industry's shipments of morticians' goods represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was also 95 percent. Secondary products shipped by this industry in 1963 included surgical and medical instruments and apparatus.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 54 percent of the total industry shipments are represented by plants specializing in 39881, Metal caskets and coffins, completely lined and trimmed; and 24 percent in 39882, Wood caskets and coffins, completely lined and trimmed.

Shipments of morticians' goods by this industry represented 98 percent of all shipments of these products (\$267 million) by all industries. In 1958 the coverage ratio was 99 percent. Other industries shipping morticians' goods include industry 3443, Boiler Shop Products.

The production index for the primary products of the industry increased to 155 in 1963 from the 1958 level of 126. The unit value index for 1963 was 105, the same level as in 1958. Both indexes were computed on a basis of 1954 = 100.

#### 3992—FURS, DRESSED AND DYED

This industry comprises establishments primarily engaged in scraping, currying, tanning, bleaching, and dyeing pelts. For a detailed list of products of industry 3992, refer to table 6A, product code 3992011.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Furs, Dressed and Dyed, Industry totaled \$42 million. This amount included shipments of furs, dressed and dyed (primary products) valued at \$41 million, shipments of other products (secondary products) valued at \$1 million, and miscellaneous receipts, at less than \$1 million.

This industry's receipts for furs, dressed and dyed, including value of receipts for work done on materials owned by others, represented 98 percent of its total product shipments. The industry specialization ratio in 1958 was 100 percent.

Shipments of furs, dressed and dyed, by this industry represented 94 percent of all shipments of these products (\$44 million) by all industries. In 1958 the coverage ratio was 100 percent. Other industries shipping furs, dressed and dyed include industry 2371, Fur Goods.

#### 3993—SIGNS AND ADVERTISING DISPLAYS

This industry comprises establishments primarily engaged in manufacturing electrical, mechanical, cutout, or plate signs and advertising displays, including neon signs and advertising novelties. Sign painting shops doing business on a custom basis are classified in service industries. Establishments primarily engaged in manufacturing electric signal equipment are classified in industry 3662, and lighting fixtures in industry 3642. For a detailed list of products of industry 3993, refer to table 6A, product codes 3993111 to 3993311.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Signs and Advertising Displays Industry totaled \$647 million. This amount included shipments of signs and advertising displays (primary products) valued at \$555 million, shipments of other products (secondary products) valued at \$26 million, and miscellaneous receipts (mainly products bought and resold) at \$66 million.

This industry's shipments of signs and advertising displays represented 96 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent. Secondary products shipped by this industry in 1963 included job stampings.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 49 percent of the total industry shipments are represented by plants specializing in 39932, Nonelectric signs and advertising displays; and 28 percent in 39931, Luminous tubing and bulb signs.

Shipments of signs and advertising displays by this industry represented 95 percent of all shipments of these products (\$584 million) by all industries. In 1958 the coverage ratio was also 95 percent. Other industries shipping signs and advertising displays include industry 3079, Plastics Products, N.E.C.

#### 3995—UMBRELLAS, PARASOLS, AND CANES

This industry comprises establishments primarily engaged in manufacturing umbrellas, parasols, canes; and trimmings, frames, handles, and other parts. For a detailed list of products of industry 3995, refer to table 6A, product code 3995011.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Umbrellas, Parasols, and Canes Industry totaled \$37 million. This amount included shipments of umbrellas, parasols, and canes (primary products) valued at \$33 million, shipments of other products (secondary products) valued at \$2 million, and miscellaneous receipts (mainly products bought and resold) at \$1 million.

This industry's shipments of umbrellas, parasols, and canes represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was 96 percent.

Shipments of umbrellas, parasols, and canes by this industry represented 98 percent of all shipments of these products (\$34 million) by all industries. In 1958 the coverage ratio was 95 percent.

#### 3999—MANUFACTURING INDUSTRIES, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing miscellaneous fabricated products, including beauty shop and barber shop equipment; hair work; tobacco pipes and cigarette holders; coin-operated amusement machines; and many other articles, n.e.c. For a detailed list of products of industry 3999, refer to table 6A, product codes 3999111 to 3999398.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Miscellaneous Products, N.E.C., Industry totaled \$458 million. This amount included shipments of miscellaneous products, n.e.c.



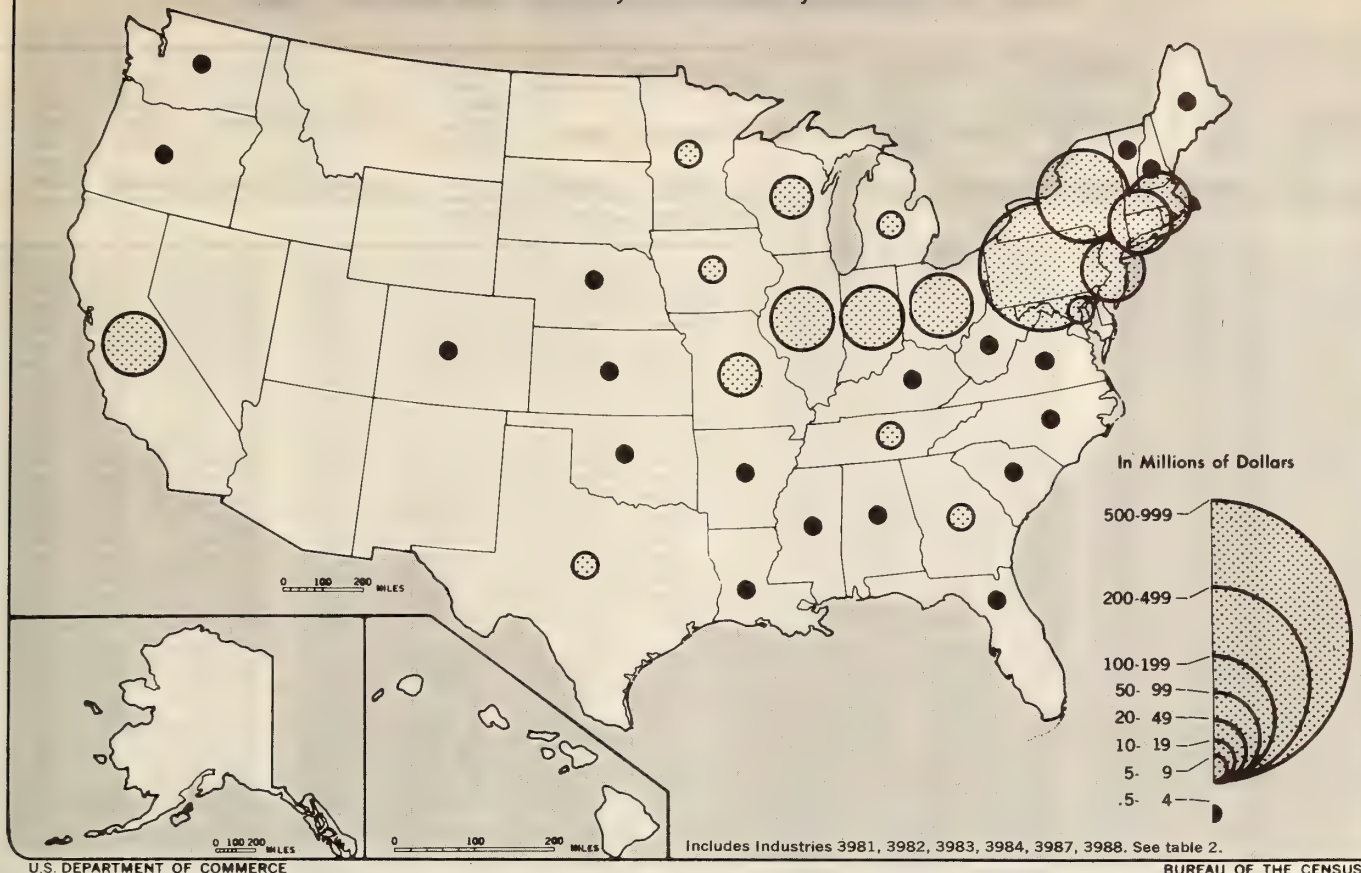
(primary products) valued at \$395 million, shipments of other products (secondary products) valued at \$27 million, and miscellaneous receipts (mainly products bought and resold) at \$36 million.

This industry's shipments of miscellaneous products, n.e.c., represented 94 percent of its total product shipments. The industry specialization ratio in 1958 was 92 percent. Secondary products shipped by this industry in 1963 included wood products, n.e.c., and precision measuring tools.

Shipments of miscellaneous products, n.e.c., by this industry represented 84 percent of all shipments of these products (\$472 million) by all industries. In 1958 the coverage ratio was 87 percent. Other industries shipping miscellaneous products, n.e.c., include industry 2844, Toilet Preparations, \$7 million.

# MISCELLANEOUS MANUFACTURES: SIC 398

Value Added by Manufacture by State: 1963



# MISCELLANEOUS MANUFACTURES: SIC 399

Value Added by Manufacture by State: 1963

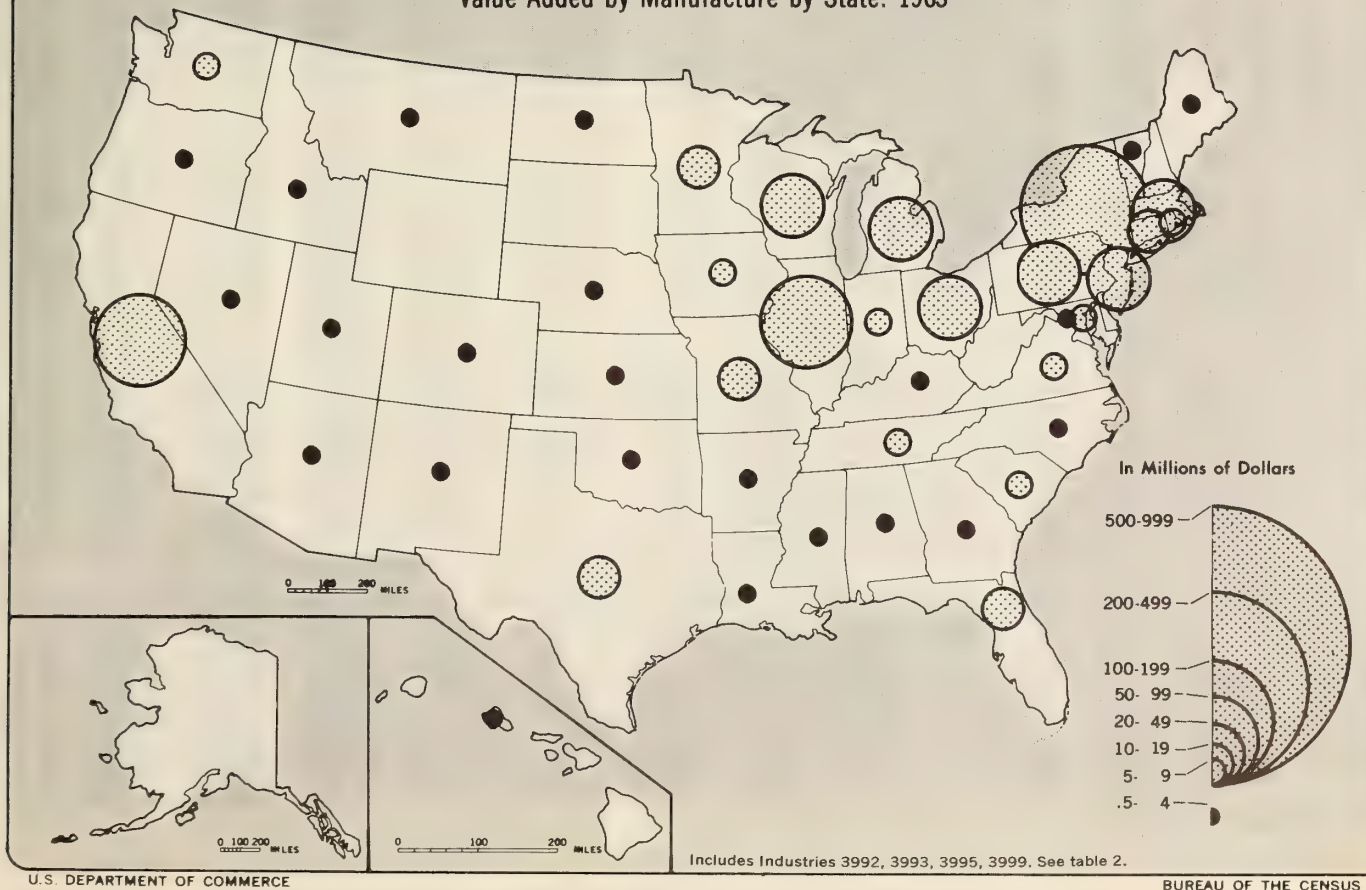




TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Special- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3981.—BROOMS AND BRUSHES														
1963.....	628	643	167	16,637	73,620	13,428	25,801	49,510	167,866	153,625	321,129	4,394	89	93
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,630	74,352	13,538	25,663	49,439	166,614	144,817	306,878	5,188	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,619	70,995	13,425	25,175	46,786	147,942	143,661	292,862	3,639	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,870	70,555	13,618	26,229	47,069	150,216	143,566	291,298	(6,516)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,612	70,118	14,274	27,252	47,664	155,279	146,369	298,935	(11,514)	(NA)	(NA)
1958.....	713	723	179	17,082	64,573	13,557	25,601	42,917	137,496	137,073	275,722	3,981	89	94
1954.....	688	698	177	16,826	54,789	13,534	25,595	36,294	102,948	124,013	227,162	3,074	91	92
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,315	54,890	13,004	25,166	35,428	94,387	92,943	187,330	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,915	58,166	14,275	27,182	38,296	102,763	106,794	209,557	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	18,244	59,016	14,729	28,602	37,918	110,030	110,412	220,442	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,383	50,299	14,371	27,247	33,419	95,853	103,559	199,412	(NA)	(NA)	(NA)
1947.....	698	706	(NA)	18,551	44,875	15,543	30,617	31,162	87,288	92,523	179,811	(NA)	94	97
1939.....	(NA)	565	(NA)	14,406	16,151	11,678	(NA)	10,746	29,002	31,307	60,309	(NA)	(NA)	(NA)
1937.....	(NA)	532	(NA)	13,544	13,446	11,982	(NA)	10,155	25,753	30,411	56,164	(NA)	(NA)	(NA)
1935.....	(NA)	598	(NA)	12,745	12,947	10,976	(NA)	9,079	30,058	26,372	56,430	(NA)	(NA)	(NA)
1933.....	(NA)	481	(NA)	10,660	8,631	9,566	(NA)	6,932	16,848	16,801	33,649	(NA)	(NA)	(NA)
1931.....	(NA)	598	(NA)	(NA)	(NA)	9,977	(NA)	9,318	23,470	20,492	43,962	(NA)	(NA)	(NA)
1929.....	(NA)	710	(NA)	13,775	17,469	11,803	(NA)	12,132	33,380	31,336	64,716	(NA)	(NA)	(NA)
1927.....	(NA)	696	(NA)	14,257	17,428	12,123	(NA)	12,519	34,560	31,729	66,289	(NA)	(NA)	(NA)
1925.....	(NA)	723	(NA)	14,974	18,155	12,561	(NA)	13,106	34,303	33,235	67,538	(NA)	(NA)	(NA)
1923.....	(NA)	750	(NA)	15,991	18,727	13,449	(NA)	13,690	36,271	40,502	76,773	(NA)	(NA)	(NA)
1921.....	(NA)	736	(NA)	12,785	14,311	10,762	(NA)	10,287	24,651	29,082	53,733	(NA)	(NA)	(NA)
1919.....	(NA)	1,413	(NA)	16,985	18,417	14,281	(NA)	12,822	32,248	36,963	69,211	(NA)	(NA)	(NA)
1914.....	(NA)	1,227	(NA)	14,780	8,386	12,855	(NA)	6,085	14,769	17,210	31,979	(NA)	(NA)	(NA)
1909.....	(NA)	1,282	(NA)	13,692	7,065	12,153	(NA)	5,404	13,548	15,578	29,126	(NA)	(NA)	(NA)
1904.....	(NA)	1,316	(NA)	12,407	5,305	11,425	(NA)	4,380	10,105	10,999	21,104	(NA)	(NA)	(NA)
1899.....	(NA)	1,523	(NA)	11,246	4,545	10,346	(NA)	3,788	8,940	9,544	18,484	(NA)	(NA)	(NA)
INDUSTRY 3982.—HARD SURFACE FLOOR COVERINGS														
1963.....	13	16	13	6,192	38,965	4,958	10,099	29,488	118,832	80,721	204,112	4,441	82	98
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,446	39,386	5,282	10,952	30,599	110,738	82,779	191,265	4,959	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,569	38,168	5,298	10,845	29,390	96,857	79,458	179,708	5,651	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,086	39,732	5,815	11,825	31,107	96,141	83,894	183,847	7,845	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,042	44,768	6,788	14,260	36,330	110,892	97,464	206,520	(9,515)	(NA)	(NA)
1958.....	10	14	14	7,999	41,924	6,722	14,034	34,113	93,145	87,138	181,584	5,443	84	98
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	8,736	43,386	7,433	14,939	35,254	97,035	77,487	176,100	12,034	81	97
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,378	45,831	8,079	16,804	37,716	105,217	86,315	190,205	6,635	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	9,991	47,543	8,661	18,420	39,637	111,576	93,971	203,510	6,294	(NA)	(NA)
1954.....	10	16	16	9,638	43,596	8,242	17,382	35,918	103,265	79,298	187,304	6,352	85	97
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,374	43,938	9,064	18,798	37,701	95,529	91,717	187,246	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	10,834	45,463	9,616	20,557	39,290	90,342	100,332	189,461	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,272	43,872	9,980	21,604	37,751	78,877	102,142	179,806	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,761	42,715	10,530	22,706	36,866	99,308	98,142	196,237	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	11,327	40,617	10,227	22,016	35,329	80,591	94,037	173,695	(NA)	(NA)	(NA)
1947.....	14	18	18	9,928	31,571	8,764	20,267	26,796	82,548	92,788	173,255	(NA)	91	100
1939.....	(NA)	17	(NA)	8,301	13,505	7,028	(NA)	10,406	41,506	28,369	69,875	(NA)	(NA)	(NA)
1937.....	(NA)	16	(NA)	8,833	13,051	8,107	(NA)	11,378	36,276	32,908	69,184	(NA)	(NA)	(NA)
1935.....	(NA)	16	(NA)	6,895	9,350	6,410	(NA)	8,105	28,456	23,942	52,398	(NA)	(NA)	(NA)
1933.....	(NA)	18	(NA)	5,494	6,220	5,092	(NA)	5,347	25,492	16,320	41,812	(NA)	(NA)	(NA)
1931.....	(NA)	21	(NA)	(NA)	(NA)	4,841	(NA)	6,329	25,960	10,117	42,977	(NA)	(NA)	(NA)
1929.....	(NA)	21	(NA)	9,647	15,656	7,889	(NA)	12,061	47,371	41,768	89,139	89,139	(NA)	(NA)
1927.....	(NA)	19	(NA)	8,980	14,443	7,806	(NA)	11,871	41,141	40,402	81,543	(NA)	(NA)	(NA)
1925.....	(NA)	17	(NA)	8,153	11,655	7,336	(NA)	9,730	42,635	34,897	77,532	(NA)	(NA)	(NA)
1923.....	(NA)	16	(NA)	9,331	13,787	7,943	(NA)	10,579	41,390	36,417	77,807	(NA)	(NA)	(NA)
1921.....	(NA)	19	(NA)	6,697	10,867	5,693	(NA)	7,208	22,987	25,635	48,622	(NA)	(NA)	(NA)
1919.....	(NA)	21	(NA)	6,251	8,298	5,414	(NA)	6,518	22,304	30,369	52,673	(NA)	(NA)	(NA)
1914.....	(NA)	18	(NA)	4,795	3,205	4,428	(NA)	2,604	6,350	11,252	17,602	(NA)	(NA)	(NA)
1909.....	(NA)	19	(NA)	4,462	2,750	4,225	(NA)	2,309	5,668	10,145	15,813	(NA)	(NA)	(NA)
1904.....	(NA)	16	(NA)	3,538	2,020	3,355	(NA)	1,720	3,609	6,779	10,388	(NA)	(NA)	(NA)
1899.....	(NA)	18	(NA)	2,823	1,521	2,718	(NA)	1,327	2,954	4,853	7,807	(NA)	(NA)	(NA)
INDUSTRY 3983.—MATCHES														
1963.....	18	26	23	4,647	21,659	3,988	7,790	17,268	38,666	24,850	64,131	1,876	95-100	95-100
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	4,804	21,568	4,111	7,984	17,279	38,776	25,127	63,458	3,243	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	4,940	21,953	4,230	8,394	17,437	36,491	26,276	62,551	1,579	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,213	22,292	4,507	9,351	17,736	44,147	27,311	71,137	1,159	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,415	22,983	4,649	9,472	17,972	44,984	28,458	74,105	(1,391)	(NA)	(NA)
1958.....	18	23	20	5,127	21,097	4,350	8,505	16,400	41,776	26,332	67,018	942	(D)	(D)
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,318	21,450	4,522	9,250	16,567	36,602	25,674	65,534	1,162	100	98
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	3,994	23,225	5,053	10,248	17,661	37,116	27,917	64,662	1,451	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,360	22,979	5,433	10,806	17,799	37,756	27,005	63,865	(S)	(NA)	(NA)
1954.....	14	20	20	6,191	21,308	5,147	10,290	15,945	35,561	25,343	60,765	846	100	98

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new  (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)						
INDUSTRY 3983.—MATCHES—Continued														
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,792	18,125	4,993	10,241	14,554	29,310	23,606	52,916	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	5,986	19,947	4,882	10,209	15,237	38,534	28,773	67,307	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,217	20,388	6,158	12,096	16,098	34,203	32,108	66,311	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,246	20,098	6,159	12,496	15,777	38,338	27,462	65,800	(NA)	(NA)	(NA)
1947.....	18	29	(NA)	7,350	16,422	6,612	13,724	13,406	31,302	25,355	56,657	(NA)	100	100
1939.....	(NA)	28	(NA)	5,940	6,708	5,426	(NA)	5,598	11,479	14,098	25,577	(NA)	(NA)	(NA)
1937.....	(NA)	25	(NA)	5,693	6,268	5,261	(NA)	5,392	10,688	<sup>2</sup> 20,214	<sup>2</sup> 30,902	(NA)	(NA)	(NA)
1935.....	(NA)	24	(NA)	5,495	5,492	5,075	(NA)	4,693	11,401	<sup>2</sup> 19,039	<sup>2</sup> 30,440	(NA)	(NA)	(NA)
1933.....	(NA)	18	(NA)	4,987	4,510	4,726	(NA)	4,037	14,694	11,679	26,373	(NA)	(NA)	(NA)
1931.....	(NA)	19	(NA)	(NA)	(NA)	3,369	(NA)	3,493	7,598	10,875	18,473	(NA)	(NA)	(NA)
1929.....	(NA)	21	(NA)	4,121	4,920	3,760	(NA)	4,118	7,825	12,526	20,351	(NA)	(NA)	(NA)
1927.....	(NA)	19	(NA)	4,181	4,688	3,905	(NA)	4,131	13,022	11,884	24,906	(NA)	(NA)	(NA)
1925.....	(NA)	25	(NA)	4,939	5,406	4,627	(NA)	4,707	10,828	12,913	23,741	(NA)	(NA)	(NA)
1923.....	(NA)	22	(NA)	5,173	5,409	4,712	(NA)	4,425	12,154	11,786	23,940	(NA)	(NA)	(NA)
1921.....	(NA)	22	(NA)	5,802	6,233	4,539	(NA)	4,280	17,034	13,240	30,274	(NA)	(NA)	(NA)
1919.....	(NA)	21	(NA)	5,123	4,866	3,726	(NA)	3,060	11,643	6,853	18,496	(NA)	(NA)	(NA)
1914.....	(NA)	20	(NA)	4,542	2,811	3,800	(NA)	1,758	7,354	5,202	12,556	(NA)	(NA)	(NA)
1909.....	(NA)	26	(NA)	4,174	2,113	3,631	(NA)	1,390	6,754	4,599	11,353	(NA)	(NA)	(NA)
1904.....	(NA)	23	(NA)	3,361	1,279	3,185	(NA)	1,101	2,362	3,285	5,647	(NA)	(NA)	(NA)
1899.....	(NA)	22	(NA)	2,113	700	2,047	(NA)	613	2,585	3,421	6,006	(NA)	(NA)	(NA)
INDUSTRY 3984.—CANDLES														
1963.....	108	111	32	3,167	13,225	2,375	4,553	7,884	26,306	19,886	45,515	773	95	94
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,829	11,124	2,101	3,909	6,486	21,304	17,839	39,298	449	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,778	10,547	2,094	3,898	6,235	20,499	17,488	37,859	550	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,725	10,341	2,053	3,859	6,082	19,874	17,400	37,137	404	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,631	9,781	1,977	3,704	5,726	18,724	16,357	35,093	(347)	(NA)	(NA)
1958.....	85	86	25	2,516	9,268	1,877	3,572	5,411	17,668	15,683	33,802	482	94	95
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,987	10,076	2,252	4,798	6,400	18,557	14,390	32,388	(S)	(NA)	(NA)
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	3,079	9,920	2,356	4,854	6,329	17,516	14,140	31,103	694	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,986	9,555	2,284	4,690	6,093	16,320	13,594	29,547	(S)	(NA)	(NA)
1954.....	88	89	23	3,010	9,420	2,289	4,716	6,112	17,012	13,577	30,437	822	87	93
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	1,988	6,062	1,525	3,015	3,542	10,367	9,797	20,164	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,127	5,648	1,602	3,313	3,400	9,681	8,027	17,708	(NA)	(NA)	(NA)
1949 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,075	5,258	1,568	3,179	2,970	8,984	7,600	16,584	(NA)	91	87
1947.....	54	54	(NA)	2,405	5,596	1,933	3,972	3,704	8,911	8,995	17,906	(NA)	(NA)	(NA)
1939.....	(NA)	28	(NA)	1,188	1,752	840	(NA)	817	2,991	3,338	6,329	(NA)	(NA)	(NA)
1937.....	(NA)	22	(NA)	903	1,134	725	(NA)	686	2,728	2,624	5,352	(NA)	(NA)	(NA)
1935.....	(NA)	23	(NA)	900	1,076	713	(NA)	599	2,334	2,400	4,734	(NA)	(NA)	(NA)
1933.....	(NA)	19	(NA)	811	746	673	(NA)	561	2,284	1,844	4,128	(NA)	(NA)	(NA)
1931.....	(NA)	23	(NA)	(NA)	(NA)	713	(NA)	711	2,915	2,481	5,396	(NA)	(NA)	(NA)
1929.....	(NA)	20	(NA)	937	1,425	781	(NA)	923	3,435	3,251	6,686	(NA)	(NA)	(NA)
1927.....	(NA)	17	(NA)	921	1,404	709	(NA)	761	3,392	2,959	6,351	(NA)	(NA)	(NA)
1925.....	(NA)	20	(NA)	827	1,207	626	(NA)	673	2,328	2,786	5,114	(NA)	(NA)	(NA)
1923.....	(NA)	21	(NA)	889	1,081	746	(NA)	754	2,687	2,393	5,080	(NA)	(NA)	(NA)
1921.....	(NA)	20	(NA)	707	848	609	(NA)	590	1,686	2,091	3,777	(NA)	(NA)	(NA)
1919.....	(NA)	19	(NA)	653	725	541	(NA)	438	1,172	2,179	3,351	(NA)	(NA)	(NA)
1914.....	(NA)	15	(NA)	478	356	387	(NA)	183	612	1,119	1,731	(NA)	(NA)	(NA)
1909.....	(NA)	16	(NA)	642	408	539	(NA)	246	955	2,176	3,131	(NA)	(NA)	(NA)
1904.....	(NA)	17	(NA)	905	428	816	(NA)	294	978	2,911	3,889	(NA)	(NA)	(NA)
INDUSTRY 3987.—LAMP SHADES														
1963.....	227	228	48	3,583	12,775	3,160	6,002	9,907	20,476	17,116	37,485	530	96	98
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	4,413	14,611	3,965	7,825	12,203	18,449	16,474	35,143	(2,332)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	4,381	14,061	3,980	7,872	11,736	17,909	14,930	32,847	(2,658)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	4,323	12,869	3,925	7,637	10,538	18,343	14,367	32,670	(2,920)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	4,379	12,343	3,929	7,023	10,038	22,029	18,514	40,518	(3,809)	(NA)	(NA)
1958.....	268	270	50	3,895	11,401	3,434	6,439	9,185	18,577	15,282	34,066	1,237	97	97
1954.....	323	325	69	5,025	12,542	4,524	8,394	9,957	21,643	17,486	39,137	(Z)	93	96
1947.....	291	291	(NA)	4,488	8,473	4,100	8,275	7,043	14,668	12,831	27,499	(NA)	93	93
1939.....	(NA)	(NA)	(NA)	3,105	2,474	2,671	(NA)	1,715	3,991	4,385	8,376	(NA)	(NA)	(NA)
1937 <sup>3</sup> .....	(NA)	121	(NA)	(NA)	(NA)	2,819	(NA)	1,821	4,050	4,192	8,242	(NA)	(NA)	(NA)
INDUSTRY 3988.—MORTICIANS' GOODS														
1963.....	581	617	224	17,283	86,218	13,545	27,507	58,447	158,422	132,720	290,036	5,455	95	98
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,994	82,103	13,619	29,310	54,773	150,881	128,434	280,323	(14,081)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,971	79,745	13,495	28,827	53,226	145,810	120,950	264,067	(12,527)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,398	78,546	13,787	29,386	53,621	145,555	118,231	260,872	(12,418)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,807	75,434	13,354	27,443	51,057	130,766	113,412	245,248	(10,857)	(NA)	(NA)
1958.....	562	592	219	17,362	73,736	13,805	27,760	50,604	128,879	109,907	237,773	5,754	95	99

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expend- itures, new (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll (\$1,000)	Total  (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3988.—MORTICIANS' GOODS—Continued														
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,129	67,408	13,596	28,105	47,284	121,817	95,924	217,447	3,582	94	98
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,754	63,955	13,224	26,434	44,110	112,311	86,291	197,171	2,859	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,091	58,551	12,765	24,912	39,891	102,183	74,143	176,299	2,144	(NA)	(NA)
1954.....	541	563	217	16,729	59,233	13,302	26,499	40,001	95,369	82,226	177,287	2,846	97	97
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,702	61,159	14,550	29,670	43,470	101,713	81,177	182,890	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	16,481	51,580	13,468	25,965	37,060	83,894	87,574	171,468	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,252	55,517	14,007	29,317	39,148	91,544	103,124	194,668	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	17,053	49,152	14,088	28,689	34,853	74,943	88,597	163,540	(NA)	(NA)	(NA)
1947.....	525	568	(NA)	22,375	60,002	18,242	38,987	42,388	92,395	96,434	188,829	(NA)	90	97
1939.....	(NA)	599	(NA)	16,615	23,007	12,447	(NA)	13,392	38,941	31,862	(NA)	(NA)	(NA)	(NA)
1937.....	(NA)	521	(NA)	16,093	20,949	13,678	(NA)	15,120	38,129	33,628	71,757	(NA)	(NA)	(NA)
1935.....	(NA)	548	(NA)	16,126	19,534	13,779	(NA)	13,817	36,174	29,479	65,653	(NA)	(NA)	(NA)
1933.....	(NA)	396	(NA)	13,857	14,948	12,155	(NA)	11,837	33,066	25,674	58,740	(NA)	(NA)	(NA)
1931.....	(NA)	399	(NA)	(NA)	(NA)	11,932	(NA)	14,225	41,291	28,519	69,810	(NA)	(NA)	(NA)
1929.....	(NA)	414	(NA)	15,206	22,887	13,033	(NA)	16,411	48,932	39,350	88,282	(NA)	(NA)	(NA)
1927.....	(NA)	340	(NA)	13,709	20,070	11,665	(NA)	14,421	41,564	33,327	74,891	(NA)	(NA)	(NA)
1925 <sup>4</sup> .....	(NA)	326	(NA)	13,385	19,052	11,479	(NA)	14,057	37,642	32,771	70,413	(NA)	(NA)	(NA)
1923.....	(NA)	327	(NA)	13,732	18,576	11,593	(NA)	13,334	34,017	31,541	65,558	(NA)	(NA)	(NA)
1921.....	(NA)	314	(NA)	11,799	15,066	9,956	(NA)	10,586	27,779	27,017	54,796	(NA)	(NA)	(NA)
1919.....	(NA)	351	(NA)	14,321	17,282	11,890	(NA)	11,451	32,782	31,595	64,377	(NA)	(NA)	(NA)
1914.....	(NA)	287	(NA)	11,332	7,894	9,468	(NA)	5,383	13,068	13,257	26,325	(NA)	(NA)	(NA)
1909.....	(NA)	284	(NA)	11,287	7,044	9,339	(NA)	4,633	12,562	11,964	24,526	(NA)	(NA)	(NA)
1904.....	(NA)	239	(NA)	9,629	5,465	8,468	(NA)	4,120	10,765	9,501	20,266	(NA)	(NA)	(NA)
1899.....	(NA)	217	(NA)	7,788	4,101	6,840	(NA)	3,077	7,007	6,945	13,952	(NA)	(NA)	(NA)
INDUSTRY 3992.—FURS, DRESSED AND DYED														
1963.....	130	132	26	2,577	20,092	2,129	4,113	16,383	30,240	12,094	42,007	227	98	94
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,356	16,000	1,910	3,167	12,748	25,683	7,007	32,205	(Z)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,179	13,837	1,766	2,857	10,956	21,598	5,845	27,099	(Z)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,372	13,655	1,944	3,406	10,944	22,467	5,628	28,145	(Z)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	2,636	15,837	2,198	3,695	13,268	24,524	5,738	30,210	(S)	(NA)	(NA)
1958.....	135	137	31	2,696	16,231	2,260	3,924	13,108	24,112	5,269	29,152	(Z)	100	100
1954.....	158	160	35	3,459	16,420	3,005	4,822	13,108	24,005	5,271	29,199	(Z)	( <sup>5</sup> )	( <sup>5</sup> )
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,332	28,574	6,414	11,168	23,252	41,696	10,297	51,993	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	7,338	25,221	6,344	10,948	20,076	38,559	9,962	48,521	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	6,630	22,409	5,897	9,620	16,706	34,295	9,002	43,297	(NA)	(NA)	(NA)
1947.....	171	176	73	6,904	25,766	6,197	12,730	21,866	43,277	9,812	53,089	503	( <sup>5</sup> )	( <sup>5</sup> )
1939.....	(NA)	136	(NA)	(NA)	(NA)	4,956	(NA)	8,875	17,018	4,015	21,033	(NA)	(NA)	(NA)
1937.....	(NA)	121	(NA)	6,916	10,337	6,343	(NA)	8,335	15,314	6,449	21,763	(NA)	(NA)	(NA)
1935.....	(NA)	167	(NA)	7,027	9,602	6,434	(NA)	7,561	14,697	6,643	21,340	(NA)	(NA)	(NA)
1933.....	(NA)	181	(NA)	5,804	7,200	5,364	(NA)	6,246	15,408	9,540	24,948	(NA)	(NA)	(NA)
1931.....	(NA)	243	(NA)	(NA)	(NA)	5,160	(NA)	7,968	21,652	16,221	37,873	(NA)	(NA)	(NA)
1929.....	(NA)	248	(NA)	5,947	11,678	5,167	(NA)	8,596	21,588	18,649	40,237	(NA)	(NA)	(NA)
1927.....	(NA)	172	(NA)	6,358	13,169	5,540	(NA)	10,361	20,609	7,042	27,681	(NA)	(NA)	(NA)
1925.....	(NA)	133	(NA)	5,803	10,668	5,056	(NA)	8,206	18,127	7,296	25,423	(NA)	(NA)	(NA)
1923.....	(NA)	162	(NA)	6,030	10,657	5,203	(NA)	8,381	18,225	7,242	25,467	(NA)	(NA)	(NA)
1921.....	(NA)	126	(NA)	4,931	8,149	4,429	(NA)	6,759	13,087	6,070	19,157	(NA)	(NA)	(NA)
1919.....	(NA)	141	(NA)	5,552	8,603	5,075	(NA)	7,098	14,046	6,339	20,385	(NA)	(NA)	(NA)
1914.....	(NA)	96	(NA)	1,664	1,195	1,525	(NA)	923	1,969	906	2,875	(NA)	(NA)	(NA)
1909.....	(NA)	93	(NA)	1,357	941	1,241	(NA)	806	1,580	811	2,391	(NA)	(NA)	(NA)
1904.....	(NA)	85	(NA)	1,215	865	1,105	(NA)	755	1,574	1,642	3,216	(NA)	(NA)	(NA)
1899.....	(NA)	92	(NA)	881	527	835	(NA)	478	880	520	1,400	(NA)	(NA)	(NA)
INDUSTRY 3993.—SIGNS AND ADVERTISING DISPLAYS														
1963.....	3,165	3,206	570	43,476	242,593	33,139	64,837	163,538	407,478	243,815	646,772	15,042	96	95
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	41,297	223,769	31,436	62,249	149,430	378,196	238,162	608,965	(9,357)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	39,843	204,448	30,827	60,314	137,831	336,498	222,552	557,095	(17,757)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	39,923	203,136	31,008	60,843	139,024	329,897	210,526	536,723	(11,040)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	38,662	188,259	30,293	57,904	128,504	307,151	195,994	501,379	(8,591)	(NA)	(NA)
1958.....	2,691	2,725	460	36,170	173,028	27,949	53,572	118,887	281,168	179,078	457,025	13,505	95	95
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	37,780	157,725	29,290	58,020	108,666	279,252	145,261	419,066	(NA)	95	88
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	39,936	163,089	31,445	65,103	117,150	299,747	160,252	449,206	(NA)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	36,016	146,434	27,678	55,214	96,256	256,733	142,831	395,172	(NA)	(NA)	(NA)
1954.....	2,600	2,620	394	33,581	135,578	26,205	51,681	90,602	219,942	142,909	362,094	6,967	93	92
1953 <sup>1</sup> .....	(NA)	(NA)	(NA)	31,018	125,470	24,965	49,153	99,397	200,382	129,847	300,229	(NA)	(NA)	(NA)
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	29,540	112,902	24,538	51,065	80,149	211,975	107,984	319,959	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	27,802	98,220	22,961	46,776	69,891	180,873	103,167	284,040	(NA)	(NA)	(NA)
1950 <sup>1</sup> .....	(NA)	(NA)	(NA)	27,077	91,563	22,432	46,278	65,570	142,301	94,632	236,933	(NA)	(NA)	(NA)
1947.....	1,933	1,982	350	28,489	81,190	23,987	49,611	61,339	128,969	75,762	204,731	5,540	95	88
1939.....	(NA)	1,386	(NA)	23,370	33,675	17,206	(NA)	20,557	55,132	32,493	87,625	(NA)	(NA)	(NA)
1937.....	(NA)	1,001	(NA)	19,857	27,311	16,042	(NA)	19,181	47,969	27,754	75,723	(NA)	(NA)	(NA)

See footnotes at end of table.



TABLE 1. General Statistics: 1963 and Earlier Years—Continued

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new  (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)
		Total (number)	With 20 employ- ees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
INDUSTRY 3993.—SIGNS AND ADVERTISING DISPLAYS—Continued														
1935.....	(NA)	1,075	(NA)	17,802	22,612	13,712	(NA)	14,932	39,442	21,920	61,362	(NA)	(NA)	(NA)
1933.....	(NA)	848	(NA)	14,488	14,969	12,044	(NA)	11,577	31,832	15,312	47,144	(NA)	(NA)	(NA)
1931.....	(NA)	1,078	(NA)	(NA)	(NA)	14,463	(NA)	18,485	53,384	21,297	74,681	(NA)	(NA)	(NA)
1929.....	(NA)	1,239	(NA)	25,119	41,027	20,000	(NA)	27,901	82,343	35,701	118,044	(NA)	(NA)	(NA)
1927.....	(NA)	813	(NA)	21,470	34,456	16,907	(NA)	24,044	67,589	30,892	98,481	(NA)	(NA)	(NA)
1925.....	(NA)	759	(NA)	19,142	29,892	15,128	(NA)	20,764	63,811	25,858	89,669	(NA)	(NA)	(NA)
1923.....	(NA)	648	(NA)	15,960	22,335	12,988	(NA)	16,429	44,583	22,641	67,224	(NA)	(NA)	(NA)
1921.....	(NA)	624	(NA)	13,041	18,345	10,373	(NA)	12,703	34,537	18,734	53,271	(NA)	(NA)	(NA)
1919.....	(NA)	779	(NA)	14,208	16,347	10,432	(NA)	9,715	27,271	16,072	43,343	(NA)	(NA)	(NA)
1914.....	(NA)	776	(NA)	12,048	9,019	9,566	(NA)	5,933	15,733	9,059	24,792	(NA)	(NA)	(NA)
1909 <sup>4</sup> .....	(NA)	288	(NA)	7,066	4,581	5,540	(NA)	3,105	8,837	4,709	13,546	(NA)	(NA)	(NA)
INDUSTRY 3995.—UMBRELLAS, PARASOLS, AND CANES														
1963.....	109	112	35	2,604	10,151	2,261	4,325	7,416	16,101	20,983	36,630	190	95	98
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	(2,555)	(9,820)	(2,232)	(4,232)	(7,339)	(14,362)	(17,078)	(31,046)	(Z)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	(2,828)	(9,642)	(2,525)	(5,061)	(7,170)	(19,078)	(17,952)	(37,241)	(Z)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	(2,780)	(10,228)	(2,457)	(4,738)	(7,514)	(15,248)	(19,665)	(34,660)	(98)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	(3,159)	(11,170)	(2,774)	(5,347)	(8,209)	(17,309)	(20,869)	(38,741)	(232)	(NA)	(NA)
1958.....	120	123	43	2,932	10,129	2,591	4,929	7,548	16,602	19,221	35,161	(Z)	96	95
1957 <sup>1</sup> .....	(NA)	(NA)	(NA)	3,484	10,765	3,049	5,575	8,028	15,082	20,933	36,154	(Z)	94	96
1956 <sup>1</sup> .....	(NA)	(NA)	(NA)	3,124	9,710	2,748	5,192	7,222	13,067	21,900	35,060	(Z)	(NA)	(NA)
1955 <sup>1</sup> .....	(NA)	(NA)	(NA)	3,298	9,859	2,887	5,379	7,414	13,977	19,819	34,412	(Z)	(NA)	(NA)
1954.....	138	140	45	3,210	9,364	2,873	5,150	6,965	14,589	16,965	32,014	(Z)	95	92
1952 <sup>1</sup> .....	(NA)	(NA)	(NA)	3,423	8,895	3,092	(NA)	7,589	15,741	17,748	33,489	(NA)	(NA)	(NA)
1951 <sup>1</sup> .....	(NA)	(NA)	(NA)	3,404	8,334	3,136	(NA)	7,010	15,211	16,669	31,880	(NA)	(NA)	(NA)
1947.....	162	164	41	3,585	8,360	3,267	6,628	6,490	15,421	18,927	34,348	526	97	100
1939.....	(NA)	90	(NA)	3,236	3,055	2,862	(NA)	2,193	4,651	6,869	11,520	(NA)	(NA)	(NA)
1937.....	(NA)	81	(NA)	3,367	3,219	3,088	(NA)	2,572	5,195	8,042	13,237	(NA)	(NA)	(NA)
1935.....	(NA)	83	(NA)	2,432	2,267	2,186	(NA)	1,712	3,927	6,159	10,086	(NA)	(NA)	(NA)
1933.....	(NA)	80	(NA)	2,336	1,798	2,155	(NA)	1,531	3,287	4,972	8,259	(NA)	(NA)	(NA)
1931.....	(NA)	93	(NA)	(NA)	(NA)	1,852	(NA)	1,611	2,979	5,136	9,115	(NA)	(NA)	(NA)
1929.....	(NA)	141	(NA)	3,334	3,960	2,855	(NA)	2,768	7,087	10,907	17,994	(NA)	(NA)	(NA)
1927.....	(NA)	164	(NA)	3,922	4,717	3,308	(NA)	3,411	9,135	14,021	23,156	(NA)	(NA)	(NA)
1925.....	(NA)	176	(NA)	4,483	5,227	3,731	(NA)	3,696	10,705	16,594	27,299	(NA)	(NA)	(NA)
1923.....	(NA)	187	(NA)	4,492	5,233	3,776	(NA)	3,739	10,395	18,000	28,395	(NA)	(NA)	(NA)
1921.....	(NA)	154	(NA)	3,803	4,605	3,149	(NA)	3,126	9,119	16,889	26,008	(NA)	(NA)	(NA)
1919.....	(NA)	198	(NA)	3,941	4,775	3,368	(NA)	3,140	9,676	15,633	25,309	(NA)	(NA)	(NA)
1914.....	(NA)	265	(NA)	5,532	3,206	4,792	(NA)	2,167	5,221	8,592	13,813	(NA)	(NA)	(NA)
1909.....	(NA)	256	(NA)	6,206	3,168	5,472	(NA)	2,253	5,808	10,056	15,864	(NA)	(NA)	(NA)
1904.....	(NA)	204	(NA)	5,913	2,300	5,386	(NA)	1,826	5,046	8,250	13,296	(NA)	(NA)	(NA)
1899.....	(NA)	202	(NA)	6,227	2,373	5,640	(NA)	1,869	5,288	8,381	13,669	(NA)	(NA)	(NA)
INDUSTRY 3999.—MISCELLANEOUS PRODUCTS, N.E.C.														
1963.....	1,479	1,499	322	30,138	129,350	24,534	47,811	91,085	252,170	210,922	458,471	9,888	94	84
1962 <sup>1</sup> .....	(NA)	(NA)	(NA)	25,899	115,711	20,382	40,421	76,527	235,314	215,082	449,145	(6,966)	(NA)	(NA)
1961 <sup>1</sup> .....	(NA)	(NA)	(NA)	25,547	106,961	20,200	40,801	72,504	192,051	183,171	380,610	(4,351)	(NA)	(NA)
1960 <sup>1</sup> .....	(NA)	(NA)	(NA)	25,698	167,988	20,191	40,478	72,683	194,861	183,673	379,686	(6,323)	(NA)	(NA)
1959 <sup>1</sup> .....	(NA)	(NA)	(NA)	28,249	108,568	22,574	43,676	75,007	183,584	174,458	362,057	(7,973)	(NA)	(NA)
1958 <sup>4</sup> .....	1,235	1,259	264	27,285	109,053	21,890	42,116	76,299	192,313	174,792	358,076	7,317	92	87

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$500 thousand. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>Because of the inclusion of excise taxes in both the cost of materials and the value of shipments for 1937 and 1935, the statistics for these years are not strictly comparable with statistics for other years.

<sup>3</sup>No comparable figures are available for earlier years.

<sup>4</sup>The figures for 1925 and prior years do not include data for metal burial vaults, whereas the figures for later years include data for this product.

<sup>5</sup>Relationships not meaningful because predominance of miscellaneous receipts, particularly contract and commission work on material owned by others.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3981.—BROOMS AND BRUSHES													
Total.....	643	167	16,637	73,620	13,428	25,801	49,510	167,866	153,625	321,129	4,394	17,082	137,496
New England.....	47	18	3,155	15,745	2,537	4,919	10,841	53,865	48,275	102,856	806	3,199	44,565
Middle Atlantic....	171	57	5,155	22,537	4,149	7,819	15,031	46,667	41,172	87,153	1,404	5,074	35,801
New York.....	93	31	3,243	14,423	2,591	4,941	9,580	31,065	26,806	57,314	980	( <sup>2</sup> )	( <sup>2</sup> )
New Jersey.....	37	16	1,362	6,206	1,106	1,962	4,074	12,612	10,233	22,636	317	876	6,717
Pennsylvania.....	41	10	550	1,908	452	916	1,377	2,990	4,133	7,203	107	( <sup>2</sup> )	( <sup>2</sup> )
East North Central.	123	40	3,829	18,779	3,017	5,957	11,760	36,894	33,640	70,405	1,421	4,109	31,393
Ohio.....	28	13	1,605	8,656	1,204	2,296	4,890	16,200	13,841	30,032	777	1,653	15,252
Illinois.....	44	14	1,228	5,559	1,040	2,121	3,938	10,859	10,132	21,080	317	1,416	9,414
Wisconsin.....	18	7	618	2,915	488	1,007	1,857	6,285	6,479	12,608	269	( <sup>2</sup> )	( <sup>2</sup> )
West North Central.	46	9	1,064	3,752	935	1,816	3,041	7,102	5,546	12,824	126	933	4,399
Minnesota.....	8	2	206	882	151	317	579	1,445	1,412	2,875	(D)	292	2,384
Iowa.....	12	2	389	1,536	376	757	1,475	3,548	2,658	6,265	68	105	628
Nebraska.....	6	2	139	415	126	211	321	791	455	1,251	(D)	143	654
South Atlantic.....	72	17	1,581	6,076	1,295	2,462	4,080	10,570	11,791	22,269	286	( <sup>2</sup> )	( <sup>2</sup> )
Maryland.....	10	5	786	3,654	626	1,235	2,360	6,562	6,773	13,247	132	931	6,101
North Carolina...	24	2	229	670	193	345	458	1,042	1,709	2,733	102	231	974
Georgia.....	13	3	170	503	137	238	358	866	985	1,858	29	( <sup>2</sup> )	( <sup>2</sup> )
Florida.....	9	5	250	813	217	412	552	1,443	1,363	2,760	12	287	1,247
East South Central.	31	6	469	1,415	408	775	1,154	3,985	2,599	6,682	84	( <sup>2</sup> )	( <sup>2</sup> )
Tennessee.....	10	3	237	722	194	376	542	1,714	1,472	3,285	26	161	1,217
West South Central.	68	7	525	1,566	446	837	1,211	2,408	3,278	5,644	94	( <sup>2</sup> )	( <sup>2</sup> )
Louisiana.....	16	2	122	266	100	186	186	440	750	1,173	20	117	456
Texas.....	35	3	304	1,023	258	493	786	1,518	1,915	3,399	64	317	1,305
Mountain.....	13	1	82	274	64	125	208	531	590	1,129	23	142	808
Pacific.....	72	12	777	3,476	577	1,091	2,184	5,844	6,734	12,167	150	961	6,353
Oregon.....	6	3	135	548	114	216	410	1,112	1,126	1,912	(D)	120	799
California.....	57	7	562	2,617	396	757	1,527	4,399	5,099	9,405	126	742	5,098
INDUSTRY 3982.—HARD SURFACE FLOOR COVERING													
Total.....	16	13	6,192	38,965	4,958	10,099	29,488	118,832	80,721	204,112	4,441	7,999	93,145
New England.....	3	3	773	4,412	634	1,367	3,410	7,333	7,694	16,661	125	1,170	9,930
Middle Atlantic....	6	5	5,063	32,117	4,049	8,190	24,498	106,815	68,086	177,938	4,225	6,064	75,045
North Central, South and West....	7	5	356	2,436	275	542	1,580	4,684	4,941	9,513	91	765	8,170
INDUSTRY 3983.—MATCHES													
Total.....	26	23	4,647	21,659	3,988	7,790	17,268	38,666	24,850	64,131	1,876	5,127	41,776
North East.....	7	6	1,502	6,981	1,278	2,474	5,406	10,806	7,903	19,136	1,454	1,746	12,483
North Central.....	12	10	2,410	11,234	2,078	4,095	9,086	21,532	12,530	34,294	350	2,763	22,982
South.....	3	3	236	1,151	208	415	936	1,844	1,392	3,206	(D)	618	6,311
Pacific.....	4	4	499	2,293	424	806	1,840	4,484	3,025	7,495	(D)		
INDUSTRY 3984.—CANDLES													
Total.....	111	32	3,167	13,225	2,375	4,553	7,884	26,306	19,886	45,515	773	2,516	17,668
New England.....	7	3	232	848	171	297	470	1,746	1,152	2,858	55	118	863
Middle Atlantic....	43	17	1,812	7,867	1,342	2,620	4,659	15,323	11,398	26,474	495	1,658	11,516
New York.....	30	12	1,376	6,325	979	1,984	3,619	11,992	8,511	20,242	409	1,321	9,529
North Central.....	18	3	626	2,593	465	918	1,539	5,114	4,010	8,855	131	511	3,860
South Atlantic.....	4	-	2	8	2	4	8	24	33	57	(D)		
West South Central.	11	4	172	662	129	253	332	1,620	1,241	2,750	(D)		
West.....	28	5	323	1,247	266	461	876	2,479	2,052	4,521	60		

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3987.—LAMP SHADES													
Total.....	228	48	3,583	12,775	3,160	6,002	9,907	20,476	17,116	37,485	530	3,895	18,577
Northeast.....	155	34	2,440	8,393	2,159	4,048	6,456	13,499	11,601	25,013	354	2,710	12,630
New Jersey.....	24	8	550	1,895	500	967	1,500	3,305	2,819	6,072	127	( <sup>2</sup> )	( <sup>2</sup> )
Pennsylvania.....	29	9	662	2,133	591	1,125	1,662	3,211	2,886	6,056	96	738	2,936
North Central.....	33	8	713	2,871	620	1,204	2,246	4,209	3,599	7,798	65	745	3,724
Illinois.....	24	6	623	2,545	544	1,057	2,005	3,766	3,217	6,972	48	707	3,569
South.....	11	1	78	200	74	159	194	436	491	913	13	56	224
West.....	29	5	352	1,311	307	591	1,011	2,332	1,425	3,760	98	384	1,999
California.....	24	5	341	1,287	298	577	991	2,301	1,379	3,683	98	352	1,845
INDUSTRY 3988.—MORTICIANS' GOODS													
Total.....	617	224	17,283	86,218	13,545	27,507	58,447	158,422	132,720	290,036	5,455	17,362	128,879
New England.....	38	15	1,032	5,041	768	1,646	3,343	8,593	7,376	15,868	246	1,033	6,767
Massachusetts....	19	9	625	3,103	480	1,061	2,166	5,030	4,558	9,473	176	655	4,560
Connecticut.....	5	2	121	815	40	84	198	1,506	1,427	2,918	37	122	1,137
Middle Atlantic....	104	34	3,427	17,823	2,740	5,668	13,468	29,163	24,384	53,092	1,137	3,655	28,372
New York.....	44	13	962	5,378	745	1,557	3,726	9,601	9,036	18,452	247	1,062	8,487
New Jersey.....	14	2	150	792	108	229	546	1,232	1,915	3,149	32	147	974
Pennsylvania.....	46	19	2,315	11,653	1,887	3,882	9,196	18,330	13,433	31,491	858	2,446	18,911
East North Central.	143	66	6,047	34,415	4,578	9,515	21,786	68,589	43,877	112,078	2,730	5,907	51,326
Ohio.....	39	17	1,519	8,076	1,208	2,393	5,716	15,389	8,433	23,554	341	1,850	14,276
Indiana.....	32	17	2,355	14,857	1,693	3,630	8,701	33,230	19,179	52,148	1,854	1,829	20,222
Illinois.....	38	21	1,611	8,679	1,254	2,522	5,680	14,955	10,892	25,946	427	1,510	12,072
Michigan.....	23	7	334	1,714	257	528	1,099	2,827	3,495	6,357	94	353	2,738
Wisconsin.....	11	4	228	1,089	166	442	590	2,188	1,878	4,073	14	365	2,018
West North Central.	65	20	1,129	5,176	800	1,597	3,096	9,003	8,870	17,887	162	1,167	7,586
Iowa.....	13	4	218	1,040	158	313	581	1,566	1,493	3,078	18	235	1,467
Missouri.....	33	12	578	2,549	402	808	1,562	4,470	4,167	8,623	67	588	3,730
South Atlantic.....	81	25	1,848	6,812	1,528	2,662	4,752	13,042	12,056	25,223	466	1,999	11,006
Virginia.....	11	2	166	649	137	284	458	1,037	1,235	2,258	10	228	1,318
North Carolina....	16	9	352	1,285	288	603	886	2,432	3,019	5,445	122	358	2,109
Georgia.....	20	7	836	2,808	725	984	2,120	5,360	3,735	9,294	215	923	4,103
Florida.....	20	2	169	668	133	292	450	1,658	1,946	3,583	47	157	1,210
East South Central.	49	21	1,235	4,578	1,030	2,179	3,244	8,240	12,056	20,088	320	1,077	5,847
Tennessee.....	27	12	802	2,838	684	1,471	2,119	5,128	8,302	13,322	229	683	3,671
Alabama.....	11	6	278	1,105	225	448	721	1,995	2,102	4,045	65	( <sup>2</sup> )	( <sup>2</sup> )
West South Central.	56	18	1,239	4,930	1,009	2,038	3,274	10,044	9,843	19,893	227	1,189	7,646
Arkansas.....	8	5	280	935	248	495	715	1,715	1,622	3,326	14	( <sup>2</sup> )	( <sup>2</sup> )
Louisiana.....	9	1	188	760	150	306	517	2,079	1,216	3,340	23	( <sup>2</sup> )	( <sup>2</sup> )
Oklahoma.....	10	1	114	424	87	168	234	893	1,154	2,006	17	( <sup>2</sup> )	( <sup>2</sup> )
Texas.....	29	11	657	2,811	524	1,069	1,808	5,357	5,851	11,221	173	( <sup>2</sup> )	( <sup>2</sup> )
Mountain.....	16	1	152	823	123	253	562	1,377	1,798	3,176	9	136	1,250
Pacific.....	65	24	1,174	6,620	969	1,949	4,922	10,371	12,460	22,731	158	1,199	9,079
Washington.....	15	5	226	1,307	196	372	1,018	1,719	2,255	3,956	15	( <sup>2</sup> )	( <sup>2</sup> )
California.....	43	18	906	5,147	737	1,517	3,769	8,370	9,724	18,012	120	922	6,808
INDUSTRY 3992.—FURS, DRESSED AND DYED													
Total.....	132	26	2,577	20,092	2,129	4,113	16,383	30,240	12,094	42,007	227	2,696	24,112
New England.....	4	-	31	140	25	57	107	251	99	349	146	2,351	20,295
Middle Atlantic....	107	24	2,157	17,542	1,785	3,339	14,576	24,661	11,156	35,544			
New York.....	91	18	1,650	14,077	1,339	2,578	11,676	20,448	8,794	29,036			
New Jersey.....	10	5	417	2,955	362	600	2,482	3,280	1,591	4,851	(D)	635	4,592
North Central and South.....	10	2	339	2,151	273	622	1,458	4,855	670	5,454	66	345	3,817
West.....	11	-	50	259	46	95	242	473	169	660			

See footnotes at end of table.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
INDUSTRY 3993.—SIGNS AND ADVERTISING DISPLAYS													
Total.....	3,206	570	43,476	242,593	33,139	64,837	163,538	407,478	243,815	646,772	15,042	36,170	281,168
New England.....	178	29	2,015	10,787	1,551	3,076	7,351	17,763	10,285	27,890	521	1,648	11,044
Massachusetts....	89	20	1,264	7,147	939	1,896	4,803	11,525	7,030	18,456	363	1,064	6,868
Rhode Island.....	22	5	265	1,180	216	415	866	1,832	1,063	2,892	31	(2)	(2)
Middle Atlantic....	811	165	11,791	63,871	9,353	18,246	44,657	106,488	61,869	167,396	2,520	9,886	72,739
New York.....	500	109	7,898	42,626	6,331	12,307	30,253	73,354	38,147	111,007	1,593	6,471	47,861
New Jersey.....	147	28	1,827	9,480	1,473	2,867	6,583	15,718	11,484	27,027	420	1,278	9,495
Pennsylvania.....	164	28	2,066	11,765	1,549	3,072	7,821	17,416	12,238	29,362	507	2,137	15,383
East North Central.	703	156	12,637	74,144	9,594	19,123	48,085	123,654	83,291	207,304	4,572	10,719	88,499
Ohio.....	184	51	3,637	18,850	2,704	5,357	12,481	29,400	24,051	54,441	1,194	3,092	22,871
Indiana.....	74	7	745	4,015	588	1,163	2,732	7,596	5,573	13,074	247	(2)	(2)
Illinois.....	240	63	5,284	33,101	4,013	8,129	20,625	53,882	31,398	84,967	2,047	4,605	3,952
Michigan.....	123	19	1,573	10,598	1,206	2,383	6,959	18,009	10,562	28,468	739	(2)	(2)
Wisconsin.....	82	16	1,398	7,580	1,084	2,091	5,288	14,767	11,707	26,354	345	1,261	9,439
West North Central.	241	51	3,758	18,363	2,810	5,288	12,267	32,579	21,122	53,524	1,343	3,336	25,646
Minnesota.....	63	20	1,356	6,812	1,040	1,896	4,594	10,567	8,073	18,656	534	(2)	(2)
Iowa.....	42	4	549	2,757	350	691	1,599	7,251	4,216	11,384	129	577	5,717
Missouri.....	66	18	1,307	5,981	1,014	1,885	4,109	10,195	6,511	16,613	289	(2)	(2)
Nebraska.....	29	3	134	776	99	188	549	1,206	575	1,777	61	(2)	(2)
Kansas.....	31	4	315	1,537	229	471	1,032	2,504	1,293	3,783	162	241	1,761
South Atlantic.....	324	43	3,177	15,913	2,455	4,930	11,067	25,600	14,482	39,822	2,089	(2)	(2)
Maryland.....	41	6	376	2,007	269	551	1,387	3,107	2,168	5,266	595	(2)	(2)
Virginia.....	35	5	606	2,896	482	920	2,018	4,148	3,039	7,232	91	506	3,370
North Carolina....	33	4	266	1,293	206	431	807	2,413	1,244	3,624	70	148	1,083
South Carolina....	20	4	306	1,402	252	515	957	2,995	1,193	4,110	139	187	1,225
Georgia.....	50	4	356	1,661	263	520	1,122	2,993	1,938	4,883	166	(2)	(2)
Florida.....	118	17	1,027	5,272	797	1,626	3,777	8,051	3,858	11,794	887	(2)	(2)
East South Central.	118	14	1,327	6,155	998	1,891	4,346	10,973	8,610	19,191	405	(2)	(2)
Kentucky.....	30	4	307	1,511	242	479	1,015	2,369	2,399	4,694	131	299	1,536
Tennessee.....	48	8	632	3,015	447	827	2,146	6,628	2,955	9,229	173	(2)	(2)
Alabama.....	29	2	307	1,305	248	455	933	1,523	2,883	4,450	56	(2)	(2)
West South Central.	245	24	1,855	8,836	1,431	2,855	6,322	16,232	9,285	25,306	746	(2)	(2)
Arkansas.....	16	3	179	717	134	318	458	1,513	1,045	2,468	44	(2)	(2)
Louisiana.....	18	2	176	878	143	271	640	1,403	636	2,042	41	(2)	(2)
Oklahoma.....	45	3	333	1,460	242	499	1,093	2,361	1,616	3,998	95	(2)	(2)
Texas.....	166	16	1,167	5,781	912	1,767	4,131	10,955	5,988	16,798	566	(2)	(2)
Mountain.....	136	23	1,299	7,881	960	1,840	5,379	13,455	5,022	18,243	543	1,014	7,725
Colorado.....	37	7	373	2,252	269	513	1,421	4,016	1,485	5,466	184	(2)	(2)
New Mexico.....	14	2	112	609	90	169	432	787	520	1,310	34	(2)	(2)
Arizona.....	21	5	227	1,306	163	328	955	2,056	940	2,956	89	(2)	(2)
Utah.....	21	5	231	1,426	177	332	1,009	2,226	862	3,061	(D)	(2)	(2)
Pacific.....	450	65	5,617	36,643	3,987	7,588	24,064	60,734	29,849	88,096	2,303	4,546	38,685
Washington.....	67	8	526	3,517	363	658	2,180	5,649	2,114	7,770	265	435	2,975
Oregon.....	49	4	385	2,562	256	460	1,523	3,740	2,328	6,149	305	(2)	(2)
California.....	325	52	4,649	30,280	3,331	6,399	20,205	50,866	25,199	73,488	1,622	3,821	33,084
INDUSTRY 3995.—UMBRELLAS, PARASOLS, AND CANES													
Total.....	112	35	2,604	10,151	2,261	4,325	7,416	16,101	20,983	36,630	190	2,932	16,602
Northeast.....	89	30	2,138	8,403	1,844	3,537	6,243	13,346	17,974	30,814	163	(2)	(2)
New York.....	76	21	1,349	5,513	1,162	2,268	3,973	8,816	12,508	21,268	85	1,530	9,981
New Jersey.....	5	3	362	1,309	308	551	970	2,213	3,351	5,168	(D)	246	868
North Central and West.....	9	4	195	779	170	331	561	1,270	1,506	2,797	18	(2)	(2)
South.....	14	2	271	969	247	457	612	1,485	1,503	3,019		405	1,813
INDUSTRY 3999.—MISCELLANEOUS PRODUCTS, N.E.C.													
Total.....	1,499	322	30,138	129,350	24,534	47,811	91,085	252,170	210,922	458,471	9,888	27,285	192,313
New England.....	126	34	3,164	14,392	2,496	4,945	9,542	27,576	19,764	46,356	1,594	2,270	17,529
Massachusetts....	57	13	1,522	7,565	1,150	2,215	4,771	14,098	8,166	21,624	616	1,446	9,175
Connecticut.....	24	14	777	4,089	624	1,279	2,533	7,927	7,795	15,461	188	824	8,354

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture, adjusted
	Total (number)	With 20 employees or more (number)	Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)						
	INDUSTRY 3999.—MISCELLANEOUS PRODUCTS, N.E.C.—Continued												
Middle Atlantic....	604	147	13,199	54,410	11,113	21,451	40,462	112,277	90,728	199,829	3,391	6,348	40,918
New York.....	453	104	8,413	33,731	7,153	13,903	25,111	66,674	46,162	111,402	1,793	6,348	40,918
New Jersey.....	79	25	2,373	10,814	1,896	3,673	7,476	24,260	19,419	42,723	873	( <sup>2</sup> )	( <sup>2</sup> )
Pennsylvania.....	72	18	2,413	9,865	2,064	3,875	7,875	21,343	25,147	45,704	725	( <sup>2</sup> )	( <sup>2</sup> )
East North Central.	282	73	8,354	41,049	6,566	13,234	27,725	72,883	63,571	137,499	2,431	10,014	72,421
Ohio.....	49	10	1,261	5,613	880	1,780	3,067	9,639	9,926	19,311	356		
Illinois.....	117	37	4,393	21,740	3,574	7,355	15,106	38,449	36,124	75,127	1,029		
Michigan.....	63	13	1,720	9,823	1,286	2,535	6,527	14,475	10,433	25,580	581		
West North Central.	72	14	1,056	3,741	773	1,379	2,185	6,751	5,189	11,901	153	(2)	(2)
Minnesota.....	21	4	429	1,377	302	499	739	2,039	1,434	3,520	51		
Iowa.....	14	2	138	487	104	175	262	1,079	695	1,722	40		
Missouri.....	26	5	340	1,537	270	516	1,003	2,837	2,749	5,563	57		
Nebraska.....	4	2	100	278	60	114	147	743	255	989	(D)	(2)	(2)
South.....	168	21	2,145	6,496	1,812	3,406	4,794	12,841	12,153	24,603	751	1,644	11,527
Delaware.....	5	1	163	259	151	214	202	283	137	414	6	(2)	(2)
Maryland.....	15	3	154	733	118	247	466	1,159	2,254	3,369	31	(2)	(2)
Florida.....	56	3	428	1,437	324	591	998	3,127	2,420	5,400	128	(2)	(2)
Kentucky.....	6	3	192	667	176	395	572	900	844	1,734	11	(2)	(2)
Texas.....	27	5	285	747	236	415	498	1,374	1,081	2,429	54	(2)	(2)
Mountain.....	26	5	253	987	192	383	637	2,083	3,218	4,947	939	1,792	15,323
Pacific.....	221	28	1,967	8,275	1,582	3,013	5,740	17,759	16,299	33,336	629		
California.....	196	24	1,690	7,634	1,358	2,636	5,415	16,638	15,027	30,969	584		
Hawaii.....	5	1	120	160	111	189	104	155	148	300	9	(2)	(2)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures of individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

SIC 3981, Brooms and Brushes: New England—Maine, 3 (159); New Hampshire, 2 (100-249); Vermont, 3 (118); Massachusetts, 26 (2-139); Rhode Island, 4 (20-99); Connecticut, 9 (535); East North Central—Indiana, 11 (184); Michigan, 22 (194); West North Central—Missouri, 13 (298); Kansas, 7 (20-99); South Atlantic—Delaware, 4 (1-19); Virginia, 5 (20-99); West Virginia, 3 (1-19); South Carolina, 4 (20-99); East South Central—Kentucky, 10 (20-99); Alabama, 8 (100-249); Mississippi, 3 (1-19); West South Central—Arkansas, 9 (20-99); Oklahoma, 8 (20-99); Mountain—Montana, 1 (1-19); Colorado, 8 (20-99); New Mexico, 2 (1-19); Arizona, 1 (1-19); Utah, 1 (1-19); Pacific—Washington, 4 (20-99); Hawaii, 5 (1-19).

SIC 3982, Hard Surface Floor Coverings: New England—Maine, 1 (100-249); Massachusetts, 1 (250-499); Connecticut, 1 (100-249); Middle Atlantic—New York, 1 (1-19); New Jersey, 2 (1,000-2,499); Pennsylvania, 3 (3,980); East North Central—Ohio, 1 (100-249); West North Central—Nebraska, 1 (1-19); South Atlantic—Virginia, 1 (20-99); East South Central—Kentucky, 1 (20-99); Pacific—California, 3 (114).

SIC 3983, Matches: New England—New Hampshire, 1 (100-249); Massachusetts, 1 (250-499); Rhode Island, 1 (1-19); Middle Atlantic—New York, 2 (250-499); New Jersey, 2 (500-999); East North Central—Ohio, 4 (833); Illinois, 4 (738); Michigan, 1 (1-19); West North Central—Minnesota, 1 (1-19); Missouri, 2 (250-499); South Atlantic—North Carolina, 1 (20-99); West South Central—Louisiana, 1 (100-249); Texas, 1 (20-99); Pacific—Washington, 1 (100-249); California, 3 (250-499).

SIC 3984, Candles: New England—Vermont, 1 (1-19); Massachusetts, 6 (100-249); Middle Atlantic—New Jersey, 8 (208); Pennsylvania, 5 (100-249); East North Central—Ohio, 5 (292); Illinois, 3 (1-19); Michigan, 1 (1-19); Wisconsin, 2 (250-499); West North Central—Iowa, 1 (179); Missouri, 4 (1-19); North Dakota, 1 (1-19); Nebraska, 1 (1-19); South Atlantic—Maryland, 1 (1-19); North Carolina, 1 (1-19); Florida, 2 (1-19); West South Central—Louisiana, 3 (1-19); Texas, 8 (156); Mountain—Colorado, 1 (1-19); Arizona, 1 (1-19); Pacific—Oregon, 1 (100-249); California, 25 (271).

SIC 3987, Lampshades: New England—Vermont, 1 (1-19); Massachusetts, 6 (100-249); Rhode Island, 6 (182); Middle Atlantic—New York, 89 (920); East North Central—Michigan, 6 (20-99); West North Central—Minnesota, 1 (1-19); Iowa, 2 (20-99); South Atlantic—Delaware, 1 (1-19); Maryland, 2 (1-19); Georgia, 1 (1-19); Florida, 3 (1-19); East South Central—Kentucky, 1 (1-19); Tennessee, 1 (1-19); Mississippi, 1 (20-99); West South Central—Texas, 1 (1-19); Mountain—Arizona, 3 (1-19); Utah, 1 (1-19); Pacific—Oregon, 1 (1-19).

SIC 3988, Miscellaneous Goods: New England—Maine, 4 (20-99); New Hampshire, 7 (200); Rhode Island, 3 (20-99); West North Central—Minnesota, 8 (190); North Dakota, 1 (1-19); South Dakota, 1 (1-19); Nebraska, 3 (20-99); Kansas, 6 (20-99); South Atlantic—Maryland, 3 (20-99); District of Columbia, 1 (1-19); West Virginia, 4 (20-99); South Carolina, 6 (189); East South Central—Kentucky, 8 (20-99); Mississippi, 3 (20-99); Mountain—Montana, 1 (1-19); Colorado, 7 (20-99); New Mexico, 2 (1-19); Arizona, 2 (20-99); Utah, 4 (20-99); Pacific—Oregon, 4 (20-99); Hawaii, 3 (1-19).

SIC 3992, Furs, Dressed and Dyed: New England—Maine, 1 (1-19); Vermont, 1 (1-19); Connecticut, 2 (1-19); Middle Atlantic—Pennsylvania, 6 (20-99); East North Central—Illinois, 2 (100-249); Wisconsin, 1 (1-19); West North Central—Minnesota, 1 (1-19); Missouri, 2 (1-19); California, 1 (1-19); South Atlantic—Virginia, 1 (1-19); South Carolina, 1 (200-249); West South Central—Louisiana, 1 (1-19); Mountain—Colorado, 2 (20-99); Pacific—Washington, 4 (1-19); California, 5 (1-19).

SIC 3993, Signs and Advertising Displays: New England—Maine, 11 (20-99); New Hampshire, 5 (1-19); Vermont, 4 (20-99); Connecticut, 47 (333); West North Central—North Dakota, 4 (20-99); South Dakota, 6 (20-99); South Atlantic—Delaware, 4 (20-99); District of Columbia, 13 (100-249); West Virginia, 10 (20-99); East South Central—Mississippi, 11 (20-99); Mountain—Montana, 14 (20-99); Idaho, 16 (20-99); Wyoming, 5 (20-99); Nevada, 8 (158); Pacific—Alaska, 3 (1-19); Hawaii, 6 (20-99).

SIC 3995, Umbrellas, Parasols, and Canes: New England—Massachusetts, 1 (20-99); Middle Atlantic—Pennsylvania, 7 (250-499); East North Central—Ohio, 2 (20-99); Illinois, 1 (1-19); West North Central—Iowa, 1 (1-19); Missouri, 1 (1-19); South Atlantic—Maryland, 4 (214); Georgia, 1 (1-19); Florida, 3 (1-19); East South Central—Mississippi, 1 (1-19); West South Central—Arkansas, 3 (20-99); Louisiana, 1 (1-19); Texas, 1 (1-19); Mountain—Arizona, 1 (1-19); Pacific—Oregon, 1 (20-99); California, 2 (20-99).

SIC 3999, Miscellaneous Products, N.E.C.: New England—Maine, 3 (1-19); New Hampshire, 6 (20-99); Vermont, 3 (161); Rhode Island, 33 (670); East North Central—Indiana, 24 (301); Wisconsin, 29 (678); West North Central—North Dakota, 1 (1-19); South Dakota, 4 (20-99); Kansas, 2 (1-19); South Atlantic—Virginia, 9 (114); West Virginia, 1 (1-19); North Carolina, 11 (250-499); South Carolina, 4 (1-19); Georgia, 2 (1-19); East South Central—Tennessee, 13 (100-249); Alabama, 2 (1-19); Mississippi, 4 (1-19); West South Central—Arkansas, 4 (20-99); Louisiana, 4 (1-19); Oklahoma, 5 (20-99); Mountain—Montana, 1 (1-19); Colorado, 8 (20-99); New Mexico, 2 (1-19); Arizona, 7 (20-99); Utah, 5 (21-99); Nevada, 3 (20-99); Pacific—Washington, 11 (20-99); Oregon, 8 (20-99); Alaska, 1 (1-19).

<sup>2</sup>This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.



TABLE 3. Detailed Statistics: 1963

Item	Brooms and brushes (SIC 3981)	Hard surface floor coverings (SIC 3982)	Matches (SIC 3983)	Candles (SIC 3984)	Lamp shades (SIC 3987)	Morticians' goods (SIC 3988)	Furs, dressed and dyed (SIC 3992)	Signs and advertising displays (SIC 3993)	Umbrellas, parasols, and canes (SIC 3995)	Miscellaneous products, n.e.c. (SIC 3999)
Primary product specialization ratio <sup>1</sup> .....	.89	.82	.95-1.00	.95	.96	.95	.98	.96	.95	.94
Coverage ratio <sup>2</sup> .....	.93	.98	.95-1.00	.94	.98	.98	.94	.95	.98	.84
Establishments, total.....number..	643	16	26	111	228	617	132	3,206	112	1,499
With 1 to 19 employees.....do....	476	3	3	79	180	393	106	2,636	77	1,177
With 20 to 99 employees.....do....	132	4	9	24	43	191	18	507	31	262
With 100 employees or more.....do....	35	9	14	8	5	33	8	63	4	60
Proprietors and working partners.....do....	421	3	1	65	152	271	56	2,064	68	786
All employees (average for the year).....do....	16,637	6,192	4,647	3,167	3,583	17,283	2,577	43,476	2,604	30,138
Payroll (all employees), total for year.....\$1,000..	73,620	38,965	21,659	13,225	12,775	86,218	20,092	242,593	10,151	129,350
Production workers:										
Average for the year.....number..	13,428	4,958	3,988	2,375	3,160	13,545	2,129	33,139	2,261	24,534
March.....do....	13,210	5,017	4,070	2,079	3,279	13,658	2,123	32,593	2,494	22,872
May.....do....	13,253	5,055	4,058	2,152	2,898	13,651	2,174	32,750	2,284	23,836
August.....do....	13,416	4,854	3,890	2,387	3,191	13,478	2,224	33,748	2,014	25,434
November.....do....	13,837	4,907	3,945	2,883	3,271	13,430	2,012	33,661	2,270	26,042
Man-hours.....1,000..	25,801	10,099	7,790	4,553	6,002	27,507	4,113	64,837	4,325	47,811
January-March.....do....	6,342	2,639	1,999	1,008	1,541	7,055	1,024	15,715	1,164	11,077
April-June.....do....	6,459	2,558	2,028	1,029	1,388	7,099	1,040	16,300	1,081	11,809
July-September.....do....	6,227	2,389	1,806	1,120	1,498	6,608	1,024	16,273	950	11,956
October-December.....do....	6,773	2,516	1,955	1,396	1,575	6,745	1,025	16,549	1,130	12,969
Wages.....\$1,000..	49,510	29,488	17,268	7,884	9,907	58,447	16,383	163,538	7,416	91,085
Cost of materials, etc., total.....do....	153,625	80,721	24,850	19,886	17,116	132,720	12,094	243,815	20,983	210,922
Materials, parts, containers, and supplies consumed.....do....	114,561	75,979	23,613	17,878	16,398	121,017	10,582	214,641	18,873	186,739
Cost of resales.....do....	36,401	1,232	549	1,439	148	9,262	176	12,489	714	15,657
Fuels consumed.....do....	593	1,574	264	269	36	876	146	2,029	57	1,378
Electric energy:										
Purchased:										
Quantity.....million kw.-hrs..	86	145	29	7	4	55	10	153	7	130
Cost.....\$1,000..	1,370	1,671	391	136	90	1,112	203	3,108	142	2,372
Generated less sold.....million kw.-hrs..	(D)	(D)	(D)	(D)	-	2	(D)	-	(D)	(D)
Contract work.....\$1,000..	700	265	33	164	444	453	987	11,534	1,197	4,772
Value of shipments (including resales), total.....do....	321,129	204,112	64,131	45,515	37,485	290,036	42,007	646,772	36,630	458,471
Value of resales.....do....	60,682	1,475	(D)	2,198	186	12,350	(D)	20,060	1,025	23,484
Value added by manufacture, adjusted.....do....	167,866	118,832	38,666	26,306	20,476	158,422	30,240	407,478	16,101	252,170
Manufacturers' inventories:										
Beginning of year, total.....do....	65,812	34,960	10,299	7,527	2,984	44,801	2,574	62,988	6,326	64,966
Finished products.....do....	30,216	21,543	3,417	4,137	954	13,013	603	16,408	2,442	23,100
Work-in-process.....do....	7,015	6,657	2,280	434	448	10,519	1,166	18,675	1,561	16,976
Materials, supplies, fuel, etc.....do....	28,581	6,760	4,602	2,956	1,582	21,269	805	27,905	2,323	24,890
End of year, total.....do....	66,428	29,921	8,914	8,009	3,127	46,395	2,662	69,030	6,133	69,776
Finished products.....do....	29,756	17,971	2,937	4,745	1,006	12,862	1,211	19,311	2,705	26,073
Work-in-process.....do....	7,837	5,670	2,145	503	503	11,776	885	20,293	1,752	18,624
Materials, supplies, fuel, etc.....do....	28,835	6,280	3,832	2,761	1,618	21,757	566	29,486	1,676	25,079
Expenditures for plant and equipment, total.....do....	4,773	4,465	2,406	792	538	5,629	272	16,088	197	10,417
New, total.....do....	4,394	4,441	1,876	773	530	5,455	227	15,042	190	9,888
New structures and additions to plant.....do....	970	343	382	117	49	1,965	42	5,227	31	3,387
New machinery and equipment.....do....	3,424	4,098	1,494	656	481	3,490	185	9,815	159	6,501
Used plant and equipment.....do....	379	24	530	19	8	174	45	1,046	7	530
Selected operating ratios:										
Payroll/Total employment.....	4,425	6,293	4,661	4,176	3,565	4,989	7,797	5,580	3,898	4,292
Production workers/Total employment.....	.81	.80	.86	.75	.88	.78	.83	.76	.87	.81
Man-hours/Production workers.....	1,921	2,037	1,953	1,917	1,899	2,031	1,932	1,957	1,913	1,949
Production worker wages/Man-hours.....	1.92	2.92	2.22	1.73	1.65	2.12	3.98	2.52	1.71	1.91
Cost of materials and payrolls/Total value of shipments....	.71	.59	.73	.73	.80	.75	.77	.75	.85	.74
Cost of materials/Total value of shipments.....	.48	.40	.39	.44	.46	.46	.29	.38	.57	.46
Adjusted value added/Total employment.....	10,090	19,191	8,321	8,306	5,715	9,166	11,735	9,372	6,183	8,367
Salaries and wages/Adjusted value added.....	.44	.33	.56	.50	.62	.54	.66	.60	.63	.51

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 3981.—BROOMS AND BRUSHES											
Establishments.....number..	643	302	90	84	86	46	24	9	1	1	-
All employees:											
Total.....do.....	16,637	553	624	1,162	2,829	3,248	3,456	<u>4,765</u>	(D)	(D)	-
Payroll.....\$1,000..	73,620	1,867	2,142	4,400	11,540	12,527	15,340	<u>25,804</u>	(D)	(D)	-
Value added, adjusted.....do....	167,866	3,568	3,829	7,274	23,648	26,509	27,045	<u>75,993</u>	(D)	(D)	-
Value of shipments.....do....	321,129	7,882	8,548	15,890	46,503	48,589	56,522	<u>137,195</u>	(D)	(D)	-
Capital expenditures, new...do....	4,394	144	143	239	410	542	522	<u>2,394</u>	(D)	(D)	-
INDUSTRY 3982.—HARD SURFACE FLOOR COVERINGS											
Establishments.....number..	16	-	1	2	3	1	3	2	3	-	1
All employees:											
Total.....do.....	6,192	-	<u>188</u>	(D)	(D)	(D)	563	<u>5,441</u>	(D)	-	(D)
Payroll.....\$1,000..	38,965	-	<u>1,269</u>	(D)	(D)	(D)	3,427	<u>34,269</u>	(D)	-	(D)
Value added, adjusted.....do....	118,832	-	<u>2,385</u>	(D)	(D)	(D)	7,447	<u>109,000</u>	(D)	-	(D)
Value of shipments.....do....	204,112	-	<u>5,001</u>	(D)	(D)	(D)	14,940	<u>184,171</u>	(D)	-	(D)
Capital expenditures, new...do....	4,441	-	<u>28</u>	(D)	(D)	(D)	170	<u>4,243</u>	(D)	-	(D)
INDUSTRY 3983.—MATCHES											
Establishments.....number..	26	2	1	-	6	3	7	5	2	-	-
All employees:											
Total.....do.....	4,647	<u>202</u>	(D)	-	(D)	229	1,112	<u>3,104</u>	(D)	-	-
Payroll.....\$1,000..	21,659	<u>889</u>	(D)	-	(D)	1,095	5,408	<u>14,267</u>	(D)	-	-
Value added, adjusted.....do....	38,666	<u>1,564</u>	(D)	-	(D)	2,564	7,962	<u>26,576</u>	(D)	-	-
Value of shipments.....do....	64,131	<u>2,841</u>	(D)	-	(D)	4,027	15,509	<u>41,754</u>	(D)	-	-
Capital expenditures, new...do....	1,876	<u>29</u>	(D)	-	(D)	36	93	<u>1,718</u>	(D)	-	-
INDUSTRY 3984.—CANDLES											
Establishments.....number..	111	48	14	17	16	8	5	3	-	-	-
All employees:											
Total.....do.....	3,167	<u>175</u>	(D)	240	466	575	771	940	-	-	-
Payroll.....\$1,000..	13,225	<u>516</u>	(D)	973	1,817	2,563	3,038	4,318	-	-	-
Value added, adjusted.....do....	26,306	<u>1,176</u>	(D)	1,958	3,934	4,674	5,498	9,066	-	-	-
Value of shipments.....do....	45,515	<u>2,398</u>	(D)	3,934	6,839	8,265	9,361	14,718	-	-	-
Capital expenditures, new...do....	773	<u>60</u>	(D)	46	122	158	123	264	-	-	-
INDUSTRY 3987.—LAMP SHADES											
Establishments.....number..	228	115	27	38	32	11	4	1	-	-	-
All employees:											
Total.....do.....	3,583	211	170	538	993	758	<u>913</u>	(D)	-	-	-
Payroll.....\$1,000..	12,775	642	552	2,050	3,524	2,536	<u>3,471</u>	(D)	-	-	-
Value added, adjusted.....do....	20,476	1,289	1,023	3,390	5,317	4,171	<u>5,286</u>	(D)	-	-	-
Value of shipments.....do....	37,485	2,180	1,787	6,767	10,025	7,775	<u>8,951</u>	(D)	-	-	-
Capital expenditures, new...do....	530	80	47	85	192	98	<u>28</u>	(D)	-	-	-
INDUSTRY 3988.—MORTICIANS' GOODS											
Establishments.....number..	617	157	115	121	149	42	25	6	2	-	-
All employees:											
Total.....do.....	17,283	277	795	1,752	4,672	2,747	3,849	<u>3,191</u>	(D)	-	-
Payroll.....\$1,000..	86,218	1,144	2,969	7,980	21,823	12,631	20,036	<u>19,635</u>	(D)	-	-
Value added, adjusted.....do....	158,422	2,805	6,040	14,291	38,624	22,186	36,091	<u>38,385</u>	(D)	-	-
Value of shipments.....do....	290,036	5,995	12,872	32,008	80,145	43,265	57,784	<u>57,967</u>	(D)	-	-
Capital expenditures, new...do....	5,455	135	239	414	954	505	1,119	<u>2,089</u>	(D)	-	-

See footnotes at end of table.



TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963—Continued

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
	INDUSTRY 3992.—FURS, DRESSED AND DYED										
Establishments.....number..	132	66	18	22	12	6	8	-	-	-	-
All employees:											
Total.....do....	2,577	133	132	306	365	396	1,245	-	-	-	-
Payroll.....\$1,000..	20,092	892	694	2,097	2,249	3,033	11,127	-	-	-	-
Value added, adjusted.....do....	30,240	1,902	277	4,616	3,338	3,949	16,158	-	-	-	-
Value of shipments.....do....	42,007	3,565	1,930	9,080	4,812	5,209	17,411	-	-	-	-
Capital expenditures, new...do....	227	8	25	50	18	(D)	126	-	-	-	-
	INDUSTRY 3993.—SIGNS AND ADVERTISING DISPLAYS										
Establishments.....number..	3,206	1,588	570	478	387	120	55	8	-	-	-
All employees:											
Total.....do....	43,476	2,720	3,796	6,500	11,648	8,369	8,028	2,415	-	-	-
Payroll.....\$1,000..	242,593	13,478	19,387	35,298	68,038	45,767	46,915	13,710	-	-	-
Value added, adjusted.....do....	407,478	29,712	35,270	57,043	107,689	75,277	79,673	22,814	-	-	-
Value of shipments.....do....	646,772	48,212	54,714	89,793	167,849	120,964	123,648	41,592	-	-	-
Capital expenditures, new...do....	15,042	1,744	1,461	2,135	4,525	2,856	1,695	626	-	-	-
	INDUSTRY 3995.—UMBRELLAS, PARASOLS, AND CANES										
Establishments.....number..	112	33	16	28	23	8	4	-	-	-	-
All employees:											
Total.....do....	2,604	61	105	374	764	547	753	-	-	-	-
Payroll.....\$1,000..	10,151	163	389	1,466	2,973	2,048	3,112	-	-	-	-
Value added, adjusted.....do....	16,101	430	605	2,257	5,079	2,978	4,752	-	-	-	-
Value of shipments.....do....	36,630	755	1,486	5,765	11,616	7,431	9,577	-	-	-	-
Capital expenditures, new...do....	190	6	12	25	25	51	71	-	-	-	-
	INDUSTRY 3999.—MISCELLANEOUS PRODUCTS, N.E.C.										
Establishments.....number..	1,499	695	252	230	190	72	43	15	1	1	-
All employees:											
Total.....do....	30,138	1,142	1,711	3,271	5,937	5,099	6,151	6,827	(D)	(D)	-
Payroll.....\$1,000..	129,350	4,407	6,564	12,805	23,967	22,421	25,425	33,761	(D)	(D)	-
Value added, adjusted.....do....	252,170	11,469	14,571	25,992	48,351	43,742	43,580	64,465	(D)	(D)	-
Value of shipments.....do....	458,471	19,224	25,578	43,911	87,120	86,151	83,188	113,299	(D)	(D)	-
Capital expenditures, new...do....	9,888	614	657	911	2,192	1,769	2,152	1,593	(D)	(D)	-

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. n.e.c. Not elsewhere classified.

**TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B+C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
3981	Brooms and brushes.....1963..	321,129	231,311	27,209	62,609	89	247,660	231,311	16,349	93
	.....1958..	275,722	196,154	24,188	55,380	89	208,057	196,154	11,903	94
3982	Hard surface floor covering.....1963..	204,112	165,169	37,050	1,893	82	168,071	165,169	2,902	98
	.....1958..	181,584	149,577	28,670	3,337	84	151,893	149,577	2,316	98
3983	Matches.....1963..	64,131	(D)	(D)	(D)	(95-100)	64,756	(D)	(D)	(95-100)
	.....1958..	67,018	(D)	(D)	460	(D)	67,972	(D)	(D)	(D)
3984	Candles.....1963..	45,515	41,018	2,244	2,253	95	43,661	41,018	2,643	94
	.....1958..	33,802	30,079	2,055	1,668	94	31,746	30,079	1,667	95
3987	Lamp shades.....1963..	37,485	35,215	1,648	622	96	35,896	35,215	681	98
	.....1958..	34,066	32,773	970	323	97	33,835	32,773	1,062	97
3988	Morticians' goods.....1963..	290,036	261,526	14,380	14,130	95	267,439	261,526	5,913	98
	.....1958..	237,773	215,268	11,109	11,396	95	217,671	215,268	2,403	99
3992	Furs, dressed and dyed.....1963..	42,007	<sup>1</sup> 40,902	708	397	98	<sup>1</sup> 43,564	40,902	2,662	94
	.....1958..	29,152	<sup>1</sup> 28,904	-	248	100	<sup>1</sup> 28,904	28,904	-	100
3993	Signs and advertising displays....1963..	646,772	554,874	25,664	66,234	96	583,811	554,874	28,937	95
	.....1958..	457,025	388,726	19,247	49,052	95	407,893	388,726	19,167	95
3995	Umbrellas, parasols, and canes....1963..	36,630	33,365	1,848	1,417	95	34,135	33,365	770	98
	.....1958..	35,161	32,973	1,470	718	96	34,658	32,973	1,685	95
3999	Miscellaneous products, n.e.c.....1963..	458,471	395,469	27,319	35,683	94	471,907	395,469	76,438	84
	.....1958..	358,076	309,987	26,953	21,136	92	357,101	309,987	47,114	87

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>Includes receipts for work done on materials owned by others.



TABLE 5B. **Industry-Product Analysis—Shipments by Product Class and Industry: 1963**

receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Brooms and brushes (SIC 3981)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Matches (SIC 3983)	Other industries
	BROOMS AND BRUSHES INDUSTRY					MATCHES INDUSTRY			
	Total shipments and receipts of the industry.....	(X)	321,129	(X)		Total shipments and receipts of the industry.....	(X)	64,131	(X)
	Primary products, total.....	247,660	231,311	16,349	39830	Matches.....	64,756	(D)	(D)
39811	Brooms.....	37,997	34,884	3,113		Secondary products.....	(X)	(D)	(X)
39812	Paint and varnish brushes.....	73,601	72,849	752		Miscellaneous receipts, total.....	(X)	(D)	(X)
39813	Other brushes.....	126,011	113,689	12,322					
39810	Brooms and brushes, n.s.k.....	10,051	9,889	162					
	Secondary products, total.....	(X)	27,209	(X)			All industries	Candles (SIC 3984)	Other industries
23920	Housefurnishings, n.e.c.....	(X)	8,151	(X)					
	Other secondary products.....	(X)	19,058	(X)		CANDLES INDUSTRY			
30795	Industrial plastics products...	(X)	(2-5)	(X)		Total shipments and receipts of the industry.....	(X)	45,515	(X)
30797	Plastics dinnerware, tableware, and kitchenware.....	(X)	(over 2)	(X)		Candles.....	43,661	41,018	2,643
	Miscellaneous receipts, total.....	(X)	62,609	(X)	39840	Secondary products.....	(X)	2,244	(X)
	Contract and commission work....	(X)	1,629	(X)		Miscellaneous receipts, total.....	(X)	2,253	(X)
	Sales of products bought and resold.....	(X)	60,682	(X)		Sales of products bought and resold	(X)	2,198	(X)
	Other.....	(X)	298	(X)		Other miscellaneous receipts.....	(X)	55	(X)
	Listing of other industries with over \$2 million shipments of the primary product classes:								
39811	2392 Housefurnishings, n.e.c....	(X)	(X)	2,274			All industries	Lamp shades (SIC 3987)	Other industries
39813	2842 Polishes and sanitation goods.....	(X)	(X)	(2-5)					
	3952 Lead pencils and art goods.	(X)	(X)	(over 2)					
		All industries	Hard surface floor coverings (SIC 3982)	Other industries	39870	LAMP SHADES INDUSTRY			
	HARD SURFACE FLOOR COVERING INDUSTRY					Total shipments and receipts of the industry.....	(X)	37,485	(X)
	Total shipments and receipts of the industry.....	(X)	204,112	(X)		Lamp shades.....	35,896	35,215	1681
	Primary products, total.....	168,071	165,169	2,902		Secondary products.....	(X)	1,648	(X)
						Miscellaneous receipts, total.....	(X)	622	(X)
39821	Linoleum.....	33,739	(D)	(D)		Contract and commission work.....	(X)	1392	(X)
39822	Asphalted-felt-base and supported plastic floor covering.....	133,618	(D)	(D)		Sales of products bought and resold	(X)	1186	(X)
39820	Hard surface floor coverings n.s.k.....	714	714	-		Other miscellaneous receipts.....	(X)	144	(X)
	Secondary products, total.....	(X)	37,050	(X)			All industries	Morticians' goods (SIC 3988)	Other industries
28424	Polishing preparations and related products.....	(X)	(over 2)	(X)		MORTICIANS' GOODS INDUSTRY			
28911	Glues and adhesives and sizes....	(X)	(5-10)	(X)		Total shipments and receipts of the industry.....	(X)	290,036	(X)
29521	Asphalt and tar saturated felts and boards for nonbuilding use..	(X)	(2-5)	(X)		Primary products.....	267,439	261,526	5,913
32925	Asphalt floor tile.....	(X)	(over 2)	(X)	39881	Metal caskets and coffins, com- pletely lined and trimmed.....	123,648	121,353	2,295
32926	Vinyl asbestos floor tile.....	(X)	(over 2)	(X)	39882	Wood caskets and coffins, com- pletely lined and trimmed.....	67,327	66,956	1371
	Miscellaneous receipts, total.....	(X)	1,893	(X)	39883	Other caskets and coffins, metal vaults, and morticians' supplies..	64,099	60,917	3,182
	Sales of products bought and resold.....	(X)	1,475	(X)	39880	Morticians' goods, n.e.c.....	12,365	12,300	165
	Other.....	(X)	418	(X)					

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry:  
1963—Continued

Prod. class code	Class of products and miscellaneous receipts	All industries	Morticians' goods (SIC 3988)	Other industries	Prod. class code	Class of products and miscellaneous receipts	All industries	Signs and advertising displays (SIC 3993)	Other industries
38410	MORTICIANS' GOODS INDUSTRY—Con.				39932 39933	SIGNS AND ADVERTISING DISPLAYS INDUSTRY—Continued			
	Secondary products.....	(X)	14,380	(X)		Listing of other industries with over \$2 million shipments of the primary product classes:			
	Surgical and medical instruments and apparatus.....	(X)	(over 2)	(X)		3079 Plastics products.....	(X)	(X)	3,089
	Miscellaneous receipts, total.....	(X)	14,130	(X)		3639 Household appliances, n.e.c.	(X)	(X)	(over 2)
	Contract and commission work.....	(X)	1,360	(X)		2752 Printing lithographic.....	(X)	(X)	(2-5)
	Sales of products bought and resold.....	(X)	12,350	(X)					
	Other miscellaneous receipts.....	(X)	420	(X)			All industries	Umbrellas, parasols, and canes (SIC 3995)	Other industries
	Listing of other industries with over \$2 million shipments of the primary product classes:								
	3443 Boiler shop products.....	(X)	(X)	(over 2)		UMBRELLAS, PARASOLS, AND CANES INDUSTRY			
						Total shipments and receipts of the industry.....	(X)	36,630	(X)
		All industries	Furs, dressed and dyed (SIC 3992)	Other industries	39950	Umbrellas, parasols, and canes.....	34,135	33,365	770
						Secondary products, total.....	(X)	1,848	(X)
						Miscellaneous receipts.....	(X)	1,417	(X)
						Contract and commission work.....	(X)	335	(X)
						Sales of products bought and resold	(X)	1,025	(X)
						Other miscellaneous receipts.....	(X)	57	(X)
39920	FURS, DRESSED AND DYED INDUSTRY								
	Total shipments and receipts of the industry.....	(X)	42,007	(X)					
	Furs, dressed and dyed.....	143,564	40,902	2,662					
	Secondary products.....	(X)	708	(X)			All industries	Miscellaneous products, n.e.c. (SIC 3999)	Other industries
	Miscellaneous receipts.....	(X)	397	(X)					
	Listing of other industries with over \$2 million shipments of the primary product classes:								
39920	2371 Fur goods.....	(X)	(X)	2,662		MISCELLANEOUS PRODUCTS, N.E.C. INDUSTRY			
						Total shipments and receipts of the industry.....	(X)	458,471	(X)
						Primary products, total.....	471,907	395,469	76,438
					39991	Chemical fire extinguishing equipment and parts.....	52,319	38,026	14,293
					39992	Coin-operated amusement machines...	30,009	29,876	133
					39993	Other miscellaneous fabricated products.....	327,597	265,923	61,674
					39990	Miscellaneous products, n.e.c., n.s.k.....	61,982	61,644	338
						Secondary products, total.....	(X)	27,319	(X)
					24995	Wood products, n.e.c.....	(X)	(over 2)	(X)
					35452	Precision measuring tools.....	(X)	(over 2)	(X)
						Miscellaneous receipts, total.....	(X)	35,683	(X)
39931	Luminous tubing and bulb signs....	144,524	142,624	1,900					
39932	Nonelectric signs and advertising displays.....	302,317	284,391	17,926					
39933	Advertising novelties.....	83,687	74,752	8,935					
39930	Signs and advertising displays, n.s.k.....	53,283	53,107	176					
	Secondary products, total.....	(X)	25,664	(X)					
34612	Job stampings, except automotive..	(X)	(2-5)	(X)	39991	3717 Motor vehicles and parts....	(X)	(X)	(2-5)
	Miscellaneous receipts, total.....	(X)	66,234	(X)		3729 Aircraft equipment, n.e.c....	(X)	(X)	(over 2)
					39993	2621 Paper mills, except building.	(X)	(X)	(over 2)
						2731 Books, publishing and printing	(X)	(X)	(over 2)
						2844 Toilet preparations.....	(X)	(X)	7,253
						2899 Chemical preparations, n.e.c.	(X)	(X)	(over 2)
						3634 Electric housewares and fans.	(X)	(X)	(over 2)
						3951 Pens and mechanical pencils..	(X)	(X)	(over 2)
						3964 Needles, pins, and fasteners.	(X)	(X)	(over 2)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Includes receipts for work done on materials owned by others.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Unit of measure	Total shipments including interplant transfers					
			1963		1958			
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)		
3981- --	BROOMS AND BRUSHES, TOTAL.....		(X)	247,660	(X)	208,057		
39811 --	Brooms, total <sup>1</sup> .....		(X)	37,997	(X)	33,741		
39811 13	Household floor brooms.....	1,000 dozen...	1,765	20,486	1,700	19,038		
39811 98	Other brooms (industrial brooms, whisk brooms, toy brooms, hearth brooms, street-sweeping machine brooms, street brooms, stable brooms, etc.).....		(X)	12,663	(X)	4,951		
39811 00	Brooms, n.s.k.....		(X)	4,848	(X)	9,752		
39812 --	Paint and varnish brushes, total.....		(X)	73,601	(X)	60,666		
	Paint and varnish brushes, including whitewash, kalsomine, paperhanging, marking, and stencilling brushes:							
39812 11	Made of pure bristle.....	1,000 dozen...	3,731	29,085	4,818	30,085		
39812 31	Made of synthetic bristle.....	...do.....	2,592	23,505	1,264	14,917		
39812 51	Made of other materials, including mixtures.....	...do.....	498	2,430	623	6,185		
39812 71	Paint rollers, complete units.....	...do.....	1,740	16,397	617	8,234		
39812 00	Paint and varnish brushes, n.s.k.....		(X)	2,184	(X)	1,245		
39813 --	Other brushes, total.....		(X)	126,011	(X)	103,389		
39813 11	Artists' brushes and hair pencils, except artists' air brushes..	1,000 dozen...	(NA)	5,357	2,014	4,002		
	Personal brushes:							
39813 21	Tooth brushes.....	...do.....	14,376	21,847	12,179	20,514		
39813 27	Hairbrushes.....	...do.....	2,061	17,353	1,264	7,974		
39813 29	Other, including shaving brushes.....		(X)	3,310	(X)	5,402		
	Maintenance brushes (floor sweeps and brushes, scrub brushes, dusting brushes, window brushes, etc.; excluding twisted-in-wire brushes):							
39813 35	Household.....		(X)	14,102	(X)	13,903		
39813 37	Industrial.....		(X)	14,142	(X)	13,094		
39813 43	Industrial brushes, except maintenance, including power-driven rotary, end, cup, jewelers' and dentists' brushes, etc.....		(X)	22,335	(X)	14,264		
39813 51	Twisted-in-wire brushes (all types).....		(X)	12,706	(X)	9,678		
39813 98	Other brushes.....		(X)	9,802	(X)	9,206		
39813 00	Other brushes, n.s.k.....		(X)	5,057	(X)	5,352		
39810 00	Brooms and brushes, n.s.k.....		(X)	10,051	(X)	10,261		
	Product	Unit of measure	1963		1958			
			Production for all purposes (quantity)	Total shipments, including interplant transfers	Production for all purposes (quantity)	Total shipments, including interplant transfers		
				Quantity		Value (\$1,000)	Quantity	Value (\$1,000)
3982- --	LINOLEUM, ASPHALTED-FELT-BASE AND OTHER HARD SURFACE FLOOR COVERINGS, N.E.C., TOTAL.....		(X)	(X)	168,071	(X)	(X)	151,893
39821 --	Linoleum.....		(X)	(X)	33,739	(X)	(X)	47,839
39821 11	Sheet goods: Over-all thickness 1/8" and thicker.....	1,000 sq.yds.	21,291	23,259	33,739	23,727	23,012	34,951
39821 13	Less than 1/8" thickness: .050 wearing surface.....	...do.....						
39821 15	Less than .050 wearing surface.....	...do.....						
39821 31	Tile: Over-all thickness 1/8" or thicker (backed and unbacked).....	...do.....						
39821 33	Less than 1/8" over-all thickness: .050 wearing surface.....	...do.....	8,642	7,922	6,264	2,299	2,628	4,213
39821 35	Less than .050 wearing surface.....	...do.....						
39821 00	Linoleum, n.s.k.....							
39822 --	Asphalted-felt-base and supported plastic floor coverings, total.....		(X)	(X)	133,618	(X)	(X)	102,580
	Floor covering:							
	Enamel coated or printed:							
39822 12	Border rugs.....	1,000 sq.yds.	52,992	56,701	14,943	59,044	59,682	17,756
39822 22	Sheet goods: Wider than 8/4.....	...do.....	13,466	11,923	3,657	40,690	40,903	15,563
39822 25	8/4 and narrower.....	...do.....						
39822 32	Plastic coated or plastic printed border rugs and sheet goods, including rotagravure printed.....	...do.....	77,243	77,149	44,340	63,352	56,406	33,109
39822 49	Other asphalted-felt-base floor covering.....	...do.....	4,599	5,380	2,477			
39822 51	Wall covering.....	...do.....						

See footnotes at end of table.

TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued

Product code	Product	Unit of measure	1963			1958		
			Production for all purposes (quantity)	Total shipments, including interplant transfers		Production for all purposes (quantity)	Total shipments, including interplant transfers	
				Quantity	Value (\$1,000)		Quantity	Value (\$1,000)
3982- --	LINOLEUM, ASPHALTED-FELT-BASE AND OTHER HARD SURFACE FLOOR COVERINGS, N.E.C.—Continued							
39822 --	Asphalted-felt-base and supported plastic floor coverings—Continued							
	Plastic floor, wall, and counter covering: Supported, including scrap vinyl backed:							
39822 81	Sheet goods <sup>2</sup> .....	1,000 sq.yds.	30,709	28,566	65,197	20,470	20,162	27,502
39822 91	Tile.....	...do.....	1,565	1,631	2,602	2,326	2,809	3,810
39822 00	Asphalted-felt-base and supported plastic floor covering, n.s.k.....		(X)	(X)	402	(X)	(X)	-
39820 00	Linoleum, asphalted-felt-base and other hard surface floor coverings, n.e.c., n.s.k.....		(X)	(X)	714	(X)	(X)	1,474
	Product	Unit of measure	Total shipments including interplant transfers					
			1963		1958			
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)		
3983- --	MATCHES, TOTAL.....		(X)	64,756	(X)	67,972		
	Wooden stem:							
39830 12	Packed in boxes of over 100 matches.....	Million matches	(NA)	2,511	39,066	8,547		
	Packed in boxes of not over 100 matches:							
39830 31	Strike anywhere.....	...do.....	15,022	2,736	17,962	2,862		
39830 35	Strike on box.....	...do.....	(NA)	2,585	56,700	6,238		
39830 61	Paper stem, packed in books or otherwise.....	...do.....	264,820	56,538	287,154	50,003		
39830 00	Matches, n.s.k.....		-	386	(X)	322		
39840 11	CANDLES, INCLUDING TAPERS, TOTAL.....		(X)	43,661	(X)	31,746		
39870 11	LAMP SHADES, TOTAL.....		(X)	35,896	(X)	33,835		
3988- --	MORTICIANS' GOODS, TOTAL.....		(X)	267,439	(X)	217,671		
39881 11	Metal caskets and coffins, completely lined and trimmed.....	1,000 units...	825	123,648	556	85,181		
39882 --	Wood caskets and coffins, completely lined and trimmed.....		(X)	67,327	(X)	69,995		
39882 11	Cloth covered, completely lined and trimmed.....	1,000 units...	565	36,274	638	39,815		
39882 52	Hard finish, completely lined and trimmed.....	...do.....	204	27,221	184	24,056		
39882 00	Wood caskets and coffins, completely lined and trimmed, n.s.k...		(X)	3,832	(X)	6,124		
39883 --	Other caskets and coffins, metal vaults, and morticians' supplies, total.....		(X)	64,099	(X)	53,234		
39883 11	Caskets and coffins, other than metal or wood, completely lined and trimmed (masonite, plastic, glass fibrous material, etc.)..		(NA)	3,461	(NA)	1,118		
39883 21	Caskets other than metal and wood (plastic, glass fibrous material, masonite, etc.) unlined and/or untrimmed.....		(NA)	174				
	Unlined and/or untrimmed caskets:							
39883 31	Metal.....	1,000 units...	257	16,063	186	13,803		
39883 55	Wood.....	...do.....	52	3,571	71	4,864		
39883 71	Casket and coffin shells.....	...do.....	207	8,151	265	6,746		
39883 81	Outer burial boxes, except concrete (excluding shipping containers).....	...do.....	156	2,391	190	2,475		
39883 91	Metal burial vaults (12 gauge or heavier) (excluding shipping cases).....	...do.....	108	9,657	(NA)	6,705		
39883 93	Other burial vaults (plastic, glass fibrous material, masonite, etc.) except concrete.....		(NA)	239	(X)	12,016		
39883 98	Other morticians' supplies, including embalming chemicals, burial garments, casket shipping containers and cases, inner liners sold as such, and morticians' equipment and supplies....		(X)	19,609				
39883 00	Other caskets and coffins, metal vaults, and morticians' supplies, n.s.k.....		(X)	783	(X)	5,507		
39880 00	Morticians' goods, n.s.k.....		(X)	12,365	(X)	9,261		
39920 11	DRESSED AND DYED FURS, TOTAL <sup>3</sup> .....		-	43,564	-	28,904		

See footnotes at end of table.



TABLE 6A. **Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958—Continued**

Product code	Product	Value of shipments including interplant transfers (\$1,000)				
		1963	1958			
3993- --	SIGNS AND ADVERTISING DISPLAYS, TOTAL.....	583,811	407,893			
39931 11	Luminous tubing, flourescent lamp and incandescent bulb signs (electric).....	144,524	99,855			
39932 --	Nonelectric signs and advertising displays, total.....	302,317	193,482			
	Metal signs, by any application process, including point-of-sale signs, road signs, truck signs, highway and street markers, and all other metal signs:					
39932 11	Porcelain enameled.....	9,019	13,956			
39932 19	All other metal signs.....	50,641	34,758			
39932 21	Screen processed signs (other than metal).....	24,563	13,424			
39932 31	Window, backbar, counter, and lobby cutouts and displays.....	52,716	39,011			
39932 98	All other signs and advertising displays, including sign letters.....	138,884	69,646			
39932 00	Nonelectric signs and advertising displays, n.s.k.....	26,494	22,688			
39933 11	Advertising specialties.....	83,687	64,361			
39930 00	Signs and advertising displays, n.s.k.....	53,283	50,195			
39950 11	UMBRELLAS, PARASOLS, AND CANES, TOTAL.....	34,135	34,658			
	Product	Unit of measure	Total shipments including interplant transfers			
			1963		1958	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
3999- --	MISCELLANEOUS PRODUCTS, N.E.C., TOTAL.....		(X)	471,907	(X)	357,101
39991 --	Chemical fire extinguishing equipment and parts, total.....		(X)	52,319	(X)	46,814
	Hand portable extinguishers meeting the specifications of Underwriters' Laboratories and Factory Mutual Laboratories:					
39991 11	Soda-acid.....	No. of units..	112,271	1,431	125,058	2,036
39991 13	Carbon-dioxide.....	..do.....	408,552	8,700	384,817	10,118
39991 15	Vaporizing liquid (carbon-tetrachloride base).....	..do.....	92,352	663	406,327	3,203
39991 17	Dry chemical fire extinguishers.....	..do.....	1,056,085	13,279	348,295	9,022
39991 18	Pressurized water.....	..do.....	91,804	2,712		
39991 19	Other extinguishers, including foam.....	..do.....	109,913	1,227		
39991 29	All other hand portable extinguishers.....	..do.....	274,780	2,523	174,752	1,640
	Other chemical fire extinguishing equipment and parts:					
39991 51	Two-wheeled chemical fire engines.....	..do.....	7,708	1,910	2,718	1,206
39991 61	Fixed systems, excluding water sprinkler systems.....		(X)	6,020	(X)	2,208
39991 71	Parts and attachments for chemical fire-extinguishing equipment.....		(X)	9,649	(X)	11,904
39991 00	Chemical fire extinguishing equipment and parts, n.s.k.....		(X)	4,205	(X)	5,477
39992 --	Coin-operated amusement machines, total.....		(X)	30,009	(X)	39,122
39992 12	Pin ball machines, and bell type machines and consoles.....	No. of units..	24,683	9,368	52,844	24,322
39992 98	Other amusement machines, including strength testing, skill games, and other arcade pieces.....		(X)	20,641	(X)	14,800
39993 --	Other miscellaneous fabricated products, total.....		(X)	327,597	(X)	271,165
39993 12	Beauty-and barber-shop furniture and equipment.....		(X)	34,045	(X)	37,165
39993 13	Beauty-and barber-shop accessories, including hair curlers, pads, and wraps.....		(X)	16,807		
39993 21	Hair work, switches, toupees, wigs.....		(X)	19,551		
39993 42	Tobacco pipes.....	No. of units..	9,646,951	13,578	(X)	9,145
39993 43	Cigar and cigarette holders.....	..do.....	3,583,942	2,462		
39993 44	Cigar and cigarette lighters (except precious metal and electric).....	1,000.....	26,455	28,731		
39993 51	Christmas tree ornaments and decorations (except electrical and glass).....		(X)	15,954	(X)	209,504
39993 98	Miscellaneous fabricated products, n.e.c. (Specify).....		(X)	180,645		
39993 00	Other miscellaneous fabricated products, n.e.c., n.s.k.....		(X)	15,824		
39990 00	Miscellaneous products, n.e.c., n.s.k.....		(X)	61,982		

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Includes upright wound brooms, metal case brooms, or other brooms of similar construction made of broomcorn.

<sup>2</sup>1958 data not strictly comparable with data for 1963 because of changes in product mix.

<sup>3</sup>Includes the value for work done on materials owned by others.

TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

Product code	Product and year	Indexes (1954 = 100)		Product code	Product and year	Indexes (1954 = 100)	
		Production	Unit value			Production	Unit value
398--	Miscellaneous manufactures.....1963.. 1958..	124 107	107 106	3988-	Morticians' goods.....1963.. 1958..	155 126	105 105
3981-	Brooms and brushes <sup>1</sup> .....1963.. 1958..	135 107	101 107	39881	Metal caskets and coffins, com- pletely lined and trimmed.....1963.. 1958..	200 136	106 108
39811	Brooms.....1963.. 1958..	101 93	103 99	39882	Wood caskets and coffins, com- pletely lined and trimmed.....1963.. 1958..	96 103	109 105
39812	Paint and varnish brushes.....1963.. 1958..	134 96	96 111	39883	Other caskets and coffins, metal vaults, and morticians' supplies..1963.. 1958..	175 146	95 95
3982-	Hard surface floor coverings.....1963.. 1958..	95 98	114 100	3992-	Furs, dressed and dyed.....1963.. 1958..	(3) (3)	(3) (3)
39821	Linoleum.....1963.. 1958..	39 60	120 109	3993-	Signs and advertising displays.....1963.. 1958..	(3) (3)	(3) (3)
39822	Asphalted-felt-base and sup- ported plastic floor coverings....1963.. 1958..	155 137	106 91	3995-	Umbrellas, parasols, and canes.....1963.. 1958..	(3) (3)	(3) (3)
3983-	Matches.....1963.. 1958..	(2) (2)	(2) (2)	3999-	Miscellaneous products, n.e.c.....1963.. 1958..	(2) (2)	(2) (2)
3984-	Candles.....1963.. 1958..	(3) (3)	(3) (3)	39991	Chemical fire extinguishing equip- ments and parts.....1963.. 1958..	102 97	115 108
3987-	Lamp shades.....1963.. 1958..	(3) (3)	(3) (3)				

n.e.c. Not elsewhere classified.

<sup>1</sup>Adjusted to include other brushes (product class 39813).<sup>2</sup>Not shown because comparable quantity data were not obtained for a significant portion of these products.<sup>3</sup>No quantity data obtained for these products.



TABLE 6C. **Product Classes—Value Shipped by All Manufacturing Establishments:**  
**1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
3981-	Brooms and brushes.....	247,660	235,539	210,735	204,182	226,688	208,057	180,751	171,831
39811	Brooms.....	37,997	33,483	33,107	32,481	(S)	33,741	36,662	27,917
39812	Paint and varnish brushes.....	73,601	80,688	72,140	64,223	65,802	60,666	56,809	54,556
39813	Other brushes.....	126,011	111,900	97,672	99,007	115,727	103,389	84,679	82,252
39810	Brooms and brushes, n.s.k.....	10,051	(9,468)	(7,816)	(8,471)	(S)	10,261	2,601	7,106
3982-	Hard surface floor coverings.....	168,071	167,554	153,277	159,252	172,263	151,893	154,826	153,439
39821	Linoleum.....	33,739	40,343	37,577	37,527	45,888	47,839	84,706	67,208
39822	Asphalted-felt-base and supported plastic floor covering.....	133,618	118,930	113,686	120,406	125,334	102,580	70,120	86,231
39820	Hard surface floor coverings, n.s.k.....	714	(8,281)	(2,034)	(1,319)	(1,041)	1,474	-	-
39830	Matches.....	64,756	64,744	63,609	72,312	75,193	67,972	61,246	56,386
39840	Candles.....	43,661	37,295	36,199	35,459	33,198	31,746	27,426	18,666
39870	Lamp shades.....	35,896	35,163	33,046	32,956	40,993	33,835	37,107	27,343
3988-	Morticians' goods.....	267,439	241,220	230,626	226,408	211,840	217,671	164,432	173,064
39881	Metal caskets and coffins, completely lined and trimmed.....	123,648	112,704	100,270	98,801	91,790	85,181	64,987	62,333
39882	Wood caskets and coffins, completely lined and trimmed.....	67,327	66,661	64,102	65,244	62,153	69,995	65,909	67,165
39883	Other caskets and coffins, metal vaults, and morticians' supplies.....	64,099	53,380	57,066	53,754	49,963	53,234	30,105	39,460
39880	Morticians' goods, n.e.c.....	12,365	(8,475)	(9,188)	(8,609)	(7,934)	9,261	3,431	4,106
39920	Furs, dressed and dyed <sup>2</sup> .....	43,564	14,765	14,858	15,582	14,147	28,904	6,284	24,836
3993-	Signs and advertising displays.....	583,811	501,151	482,114	466,207	437,292	407,893	329,894	210,713
39931	Luminous tubing and bulb signs.....	144,524	150,608	149,960	136,153	120,884	99,855	82,123	53,555
39932	Nonelectric signs and advertising displays.....	302,317	208,380	208,433	204,922	192,440	193,482	178,529	99,610
39933	Advertising novelties.....	83,687	84,861	76,756	78,509	74,695	64,361	42,180	25,011
39930	Signs and advertising displays, n.s.k.....	53,283	(57,302)	(46,965)	(46,623)	(49,273)	50,195	27,062	32,537
39950	Umbrellas, parasols, and canes.....	34,135	(34,072)	39,492	33,919	(S)	34,658	32,409	32,699
3999-	Miscellaneous products, n.e.c.....	471,907	403,805	348,781	350,198	353,144	357,101	308,949	290,462
39991	Chemical fire extinguishing equipment and parts.....	52,319	58,968	53,570	53,759	55,832	46,814	44,545	33,529
39992	Coin-operated amusement machines.....	30,009	34,825	28,202	29,982	31,797	39,122	47,738	47,882
39993	Other miscellaneous fabricated products.....	327,597	310,012	267,009	266,457	265,515	271,165	216,666	209,051
39990	Miscellaneous products, n.e.c., n.s.k.....	61,982							

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. Figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

<sup>2</sup>For 1963 and 1958 include receipts for work done on materials owned by others. Such receipts are excluded in other years.

**TABLE 6D. Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958**

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are

listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1.

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
<b>PAINT AND VARNISH BRUSHES (39812)</b>			<b>METAL CASKETS AND COFFINS, COMPLETELY LINED AND TRIMMED (39881)—Con.</b>			<b>LUMINOUS TUBING AND BULB SIGNS (39931)</b>		
United States, total....	73,601	60,666	Mountain.....	1,283	5,197	United States, total...	144,524	99,855
New England.....	9,305	6,433	Pacific.....	6,555		New England.....	6,820	4,739
Middle Atlantic.....	31,327	29,307	California.....	5,008		Massachusetts.....	4,391	2,857
New York.....	18,414	18,415				Connecticut.....	1,675	1,468
New Jersey.....	10,627	7,423	<b>WOOD CASKETS AND COFFINS, COMPLETELY LINED AND TRIMMED (39882)</b>			Middle Atlantic.....	19,432	13,051
Pennsylvania.....	2,286	3,469	United States, total...	67,327	69,995	New York.....	12,167	7,039
North Central.....	23,386	18,243	New England.....	8,381	7,930	New Jersey.....	4,554	2,398
Illinois.....	3,327	3,328	New Hampshire.....	2,338	(Z)	Pennsylvania.....	2,711	3,614
South.....	6,364	4,252	Massachusetts.....	4,705	6,237	East North Central.....	46,600	34,265
Pacific.....	3,219	2,431	Middle Atlantic.....	17,491	18,511	Ohio.....	14,059	12,863
<b>OTHER BRUSHES (39813)</b>			New York.....	10,567	9,266	Indiana.....	5,700	3,124
United States, total....	126,011	103,389	New Jersey.....	1,245	1,171	Illinois.....	13,810	9,386
New England.....	28,410	21,457	Pennsylvania.....	5,679	8,074	Michigan.....	2,997	3,075
Massachusetts.....	20,892	13,768	East North Central.....	8,376	9,631	Wisconsin.....	10,034	5,817
Middle Atlantic.....	47,557	35,147	Ohio.....	1,759	2,076	West North Central.....	11,517	6,050
New York.....	37,708	29,551	Indiana.....	2,568	3,526	Minnesota.....	7,228	1,944
New Jersey.....	7,994	4,041	Illinois.....	2,574	1,648	Missouri.....	2,016	1,243
Pennsylvania.....	1,855	1,555	West North Central.....	3,660	4,254	South Atlantic.....	10,393	8,436
East North Central.....	29,042	30,640	Missouri.....	1,402	1,707	Maryland.....	1,589	(Z)
Ohio.....	14,349	15,135	South Atlantic.....	7,890	8,403	Virginia.....	1,535	1,070
Illinois.....	9,692	9,006	North Carolina.....	3,041	2,598	South Carolina.....	1,000	(Z)
Wisconsin.....	2,558	3,738	Georgia.....	1,806	1,912	Georgia.....	1,373	1,321
West North Central.....	8,060	3,663	Florida.....	1,123	1,222	Florida.....	3,269	3,292
South.....	10,285	8,231	East South Central.....	4,529	5,104	East South Central.....	3,520	2,195
West.....	2,657	4,251	Tennessee.....	2,389	2,675	Tennessee.....	1,652	1,444
California.....	2,373	4,052	Alabama.....	1,201	1,353	West South Central.....	7,319	6,045
<b>METAL CASKETS AND COFFINS, COMPLETELY LINED AND TRIMMED (39881)</b>			West South Central.....	5,467	5,712	Louisiana.....	1,272	1,267
United States, total....	123,648	85,181	Arkansas.....	1,720	1,495	Texas.....	5,181	3,529
New England.....	3,287	1,702	Texas.....	2,256	2,544	Mountain.....	7,685	4,868
Massachusetts.....	2,543	1,084	Mountain.....	1,408	1,306	Colorado.....	2,398	1,320
Middle Atlantic.....	20,738	16,967	Pacific.....	10,125	9,144	Utah.....	1,968	(Z)
New York.....	2,544	(Z)	Washington.....	1,756	1,832	Pacific.....	31,238	20,206
Pennsylvania.....	17,222	14,875	California.....	7,904	6,887	Washington.....	3,061	1,616
East North Central.....	56,026	41,624	<b>OTHER CASKETS AND COFFINS, METAL VAULTS, AND MORTICIAN'S SUPPLIES (39883)</b>			Oregon.....	1,316	2,124
Ohio.....	11,073	7,170	United States, total...	64,099	53,234	California.....	26,604	16,466
Indiana.....	23,491	18,201	New England.....	2,500	3,802	<b>NONELECTRIC SIGNS AND ADVERTISING DISPLAYS (39932)</b>		
Illinois.....	15,440	10,042	Connecticut.....	1,491	(Z)	United States, total...	302,317	193,482
Michigan.....	3,438	3,190	Middle Atlantic.....	10,699	9,591	New England.....	9,661	6,332
Wisconsin.....	2,584	3,021	New York.....	3,119	3,132	Massachusetts.....	4,790	3,832
West North Central.....	7,207	5,175	Pennsylvania.....	6,803	6,050	Rhode Island.....	1,649	(Z)
Minnesota.....	1,635	1,111	East North Central.....	31,365	23,507	Connecticut.....	2,099	1,397
Iowa.....	1,696	1,193	Ohio.....	9,568	10,403	Middle Atlantic.....	95,159	64,939
Missouri.....	2,766	1,827	Indiana.....	11,501	4,083	New York.....	64,633	41,621
South Atlantic.....	12,954	7,299	Illinois.....	8,661	8,244	New Jersey.....	11,697	8,936
Virginia.....	1,003	(Z)	West North Central.....	4,321	3,205	Pennsylvania.....	18,829	14,382
North Carolina.....	1,791	(Z)	Missouri.....	3,029	2,380	East North Central.....	106,926	66,495
South Carolina.....	1,516	(Z)	South Atlantic.....	2,079	3,321	Ohio.....	22,592	16,492
Georgia.....	6,229	3,370	East South Central.....	4,139	3,162	Indiana.....	6,040	4,279
Florida.....	1,346	(Z)	Tennessee.....	2,051	1,664	Illinois.....	50,332	29,873
East South Central.....	7,466	2,894	Alabama.....	1,374	(Z)	Michigan.....	15,725	10,663
Tennessee.....	5,851	2,394	West South Central.....	3,454	2,741	Wisconsin.....	12,237	5,188
Alabama.....	1,002	(Z)	Texas.....	2,188	2,028	West North Central.....	20,175	18,067
West South Central.....	8,132	4,323	West.....	5,542	3,905	Minnesota.....	7,068	6,741
Texas.....	4,687	2,644	California.....	4,419	3,161	Iowa.....	1,345	(Z)

See footnotes at end of table.



TABLE 6D. **Product Classes—Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958—Continued**

Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments		Product class and geographic area	Value of shipments	
	1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958		1963 <sup>1</sup>	1958
NONELECTRIC SIGNS AND ADVERTISING DISPLAYS (39932)—Continued			NONELECTRIC SIGNS AND ADVERTISING DISPLAYS (39932)—Continued			ADVERTISING SPECIALTIES (39933)—Continued		
South Atlantic.....	18,158	8,199	Pacific.....	28,147	13,370	East North Central—Con.		
Maryland.....	2,513	(Z)	Washington.....	2,183	(Z)	Illinois.....	6,287	11,333
Virginia.....	4,090	3,212	Oregon.....	2,523	(Z)	Michigan.....	4,075	(Z)
North Carolina.....	1,682	(Z)	California.....	23,330	12,609	West North Central.....	14,888	8,393
South Carolina.....	2,421	(Z)				Minnesota.....	5,647	(Z)
Georgia.....	2,099	(Z)	ADVERTISING SPECIALTIES (39933)			South.....	5,844	4,033
Florida.....	4,072	2,134				Texas.....	1,797	1,182
East South Central.....	7,240	6,461	United States, total...	83,687	64,361	West.....	7,678	5,247
Kentucky.....	1,895	1,478				California.....	6,104	5,050
Tennessee.....	2,985	4,069	New England.....	7,540	(3)			
			Massachusetts.....	6,361	(2)	CHEMICAL FIRE EXTINGUISHING AND PARTS (39991)	1963 <sup>1</sup>	
West South Central.....	12,058	7,313	Middle Atlantic.....	28,063	(3)	United States, total...		52,319
Arkansas.....	1,357	(Z)	New York.....	19,893	15,218	Northeast.....		22,153
Oklahoma.....	1,394	2,339	New Jersey.....	5,194	5,281	New Jersey.....		15,257
Texas.....	8,336	4,609	Pennsylvania.....	2,976	(Z)			
Mountain.....	4,793	2,306	East North Central.....	19,674	20,582	North Central.....		24,825
Colorado.....	1,662	(Z)	Ohio.....	7,665	5,490	South and West.....		5,340
Arizona.....	1,652	(Z)						

(Z) Less than \$1 million reported.

<sup>2</sup> For the specified product classes shipments of \$1 million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 39812, Massachusetts, Ohio, Indiana, Wisconsin, Maryland, Tennessee, Oregon, and California; 39813, New Hampshire, Connecticut, Michigan, Minnesota, Iowa, Maryland, and Kentucky; 39881, Louisiana and Washington; 39332, Alabama; 39933, Wisconsin, Iowa, Missouri, and Tennessee; 39991, Massachusetts, New York, Ohio, Illinois, Wisconsin, and California.

<sup>2</sup>Shipments of \$1 million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

<sup>3</sup>For product class 39933, the 1958 sum of value of shipments for New England and Middle Atlantic equals \$26,106 million.

**TABLE 7A. Materials by Kind: 1963 and 1958**

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
	Materials, containers, and supplies, total.....		(X)	75,979	(X)	80,705
149901	Asbestos, crude.....	Short tons.....	21,649	1,577	(NA)	(NA)
265011	Paper and paperboard containers.....		(X)	2,138	(NA)	(NA)
209010	Vegetable oils, including crude and processed.....	1,000 lbs.....	34,741	2,922	59,090	6,951
282137	Vinyl plastics, all forms.....	..do.....	70,532	12,072	35,828	9,365
266122	Paper felts.....	..do.....	260,040	18,381	203,467	15,439
281012	Pigment.....	..do.....	27,417	6,467	26,197	6,280
970099	All other materials, parts, containers, and supplies.....		(X)	31,351	(X)	39,788
976000	Materials, containers, supplies, n.s.k.....		(X)	1,071	(X)	2,882
					1963 <sup>1</sup>	
					Quantity	Delivered cost (\$1,000)
	Materials, parts, containers, and supplies, total.....				(X)	186,739
	Mill shapes and forms:					
331001	Carbon steel.....	Short tons.....			19,485	4,705
331020	Alloy steel.....	..do.....			4,708	1,970
331031	Stainless steel.....	..do.....			4,096	3,943
335208	Aluminum and aluminum-base alloy.....	1,000 lbs.....			3,560	2,168
335003	Copper and copper-base alloy.....	..do.....			3,894	3,000
336200	Copper and copper-base alloy castings (rough and semifinished).....	..do.....			3,968	2,246
970099	All other materials and components, parts, containers, and supplies consumed.....				(X)	115,340
976000	Materials, parts, containers, and supplies, n.s.k.....				(X)	53,367

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Data for 1958 not available.

**TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962**

Item	Brooms and brushes (SIC 3981)	Hard surface floor coverings (SIC 3982)	Matches (SIC 3983)	Candles (SIC 3984)	Lamp shades (SIC 3987)	Morticians' goods (SIC 3988)	Furs, dressed and dyed (SIC 3992)	Signs and advertising displays (SIC 3993)	Umbrellas, parasols, and canes (SIC 3995)	Miscellaneous products, n.e.c. (SIC 3999)
Total cost of purchased fuels and electric energy....\$1,000..	2,730	3,546	638	208	197	2,929	253	5,693	227	3,559
Total cost of purchased fuels.....do....	932	1,852	294	149	(S)	1,315	119	2,365	109	1,491
Bituminous coal, lignite, and anthracite:										
Quantity.....1,000 short tons..	6	114	19	(S)	-	38	(S)	(S)	(S)	18
Cost.....\$1,000..	60	886	107	(S)	-	323	(S)	(S)	(S)	187
Coke and breeze:										
Quantity.....1,000 short tons..	-	-	-	-	-	(S)	-	-	-	-
Cost.....\$1,000..	-	-	-	-	-	(S)	-	-	-	-
Fuel oil (distillate and residual):										
Quantity.....1,000 barrels of 42 gallons..	111	158	27	27	(S)	55	(S)	92	(S)	87
Cost.....\$1,000..	441	422	114	85	(S)	237	(S)	438	(S)	341
Gas (natural, manufactured, still, blast furnace, and coke oven):										
Quantity.....million cu. ft..	327	390	(S)	(S)	(S)	563	(S)	1,439	(S)	596
Cost.....\$1,000..	221	235	(S)	(S)	(S)	310	(S)	991	(S)	417
Other fuels.....do....	210	309	33	(S)	(S)	436	51	891	56	546
Electric energy:										
Purchased:										
Quantity.....million kw. hrs..	98	151	30	2	(S)	83	6	179	(S)	112
Cost.....\$1,000..	1,798	1,694	344	59	(S)	1,614	134	3,328	(S)	2,068
Generated less sold.....million kw. hrs..	(S)	(S)	(S)	(S)	-	(S)	-	(S)	-	-
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total...1,000 hrs..	52	99	13	3	3	63	5	92	-	67
Prime movers, total.....do....	3	16	3	2	(Z)	9	(Z)	2	-	3
Driving generators.....do....	2	11	2	1	-	8	-	1	-	1
Not driving generators.....do....	1	5	1	1	(Z)	1	(Z)	1	-	2
Electric motors, total.....do....	50	84	14	2	3	56	5	89	-	64
Driven by purchased energy.....do....	50	83	10	1	3	54	5	89	-	64
Driven by energy generated at establishment.....do....	1	1	4	1	-	2	-	(Z)	-	-
Aggregate horsepower per 100 production workers.....	384	1,874	316	143	76	463	262	293	-	329

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.



**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3981-	BROOMS AND BRUSHES										
	Entire industry.....	643	16,637	73,620	13,428	25,801	49,510	167,866	153,625	321,129	4,394
	Establishments with—										
	90% or more specialization..	589	12,059	52,965	9,735	18,607	35,303	103,258	101,776	204,236	2,905
	75-89% specialization.....	17	1,223	5,209	946	1,847	3,332	10,962	6,829	17,850	395
39811	Brooms (primary product class of estab.).....	259	3,270	10,563	2,832	5,364	8,182	17,175	21,300	38,368	459
	Establishments with—										
	90% or more specialization....	203	1,965	6,352	1,707	3,214	5,081	10,030	13,495	23,498	228
	75-89% specialization.....	15	244	660	206	362	494	967	1,161	2,117	24
39812	Paint and varnish brushes (primary product class of estab.).....	71	4,344	19,806	3,459	6,577	12,753	38,415	41,640	79,833	1,286
	Establishments with—										
	90% or more specialization....	59	3,447	15,482	2,783	5,254	10,144	30,269	33,476	63,572	1,116
39813	Other brushes (primary product class of estab.).....	178	8,041	40,145	6,303	12,324	26,220	106,935	85,687	192,590	2,407
	Establishments with—										
	90% or more specialization....	142	3,887	18,951	3,057	5,884	12,021	38,604	29,025	67,426	1,016
	75-89% specialization.....	18	1,700	8,413	1,314	2,633	5,449	19,293	16,246	35,260	536
3988-	MORTICIANS' GOODS										
	Entire industry.....	617	17,283	86,218	13,545	27,507	58,447	158,422	132,720	290,036	5,455
39881	Metal caskets and coffins, completely lined and trimmed (primary product class of estab.)....	196	9,154	47,429	7,125	14,531	31,220	87,968	70,276	157,538	3,093
	Establishments with—										
	90% or more specialization....	61	2,351	11,497	1,886	3,534	7,785	22,224	15,526	37,787	557
	75-89% specialization.....	33	1,652	7,440	1,367	2,566	5,316	12,124	12,274	24,332	421
39882	Wood caskets and coffins, completely lined and trimmed (primary product class of estab.)....	182	4,470	21,085	3,608	7,353	15,226	35,213	36,274	71,055	956
	Establishments with—										
	90% or more specialization....	59	1,110	5,312	925	1,938	4,105	9,127	6,200	14,983	268
	75-89% specialization.....	29	643	2,730	521	1,031	1,920	4,161	4,385	8,490	96
39883	Other caskets and coffins, metal vaults, and morticians' supplies (primary product class of estab.)	127	2,823	14,663	2,159	4,281	9,878	29,179	20,321	49,388	1,137
	Establishments with—										
	90% or more specialization....	111	2,624	13,696	2,030	4,025	9,367	26,683	18,366	45,017	1,070
3993-	SIGNS AND ADVERTISING DISPLAYS										
	Entire industry.....	3,206	43,476	242,593	33,139	64,837	163,538	407,478	243,815	646,772	15,042
	Establishments with—										
	90% or more specialization..	3,067	38,563	216,512	29,356	57,335	146,484	366,928	210,413	572,488	13,244
	75-89% specialization.....	32	1,352	7,441	1,040	2,122	4,890	12,283	8,997	21,244	991
39931	Luminous tubing and bulb signs (primary product class of estab.)	878	11,540	71,628	8,507	16,347	48,882	118,425	63,508	179,048	3,953
	Establishments with—										
	90% or more specialization....	545	7,835	50,703	5,671	11,078	34,039	85,458	45,399	127,819	2,770
	75-89% specialization.....	131	1,941	10,816	1,490	2,744	7,609	16,802	10,512	27,412	636
39932	Nonelectric signs and advertising displays (primary product class of estab.).....	1,122	20,873	117,910	15,967	31,478	77,632	195,506	124,644	319,086	6,886
	Establishments with—										
	90% or more specialization....	875	15,724	88,920	12,071	23,636	58,547	149,329	88,439	236,671	4,483
	75-89% specialization.....	86	1,589	9,376	1,201	2,524	6,226	16,278	12,888	28,968	763
39933	Advertising novelties (primary product class of estab.).....	231	6,576	32,377	5,046	9,859	21,265	55,029	35,041	89,755	2,057
	Establishments with—										
	90% or more specialization....	188	4,854	23,605	3,762	7,285	15,801	41,736	25,580	67,012	1,647
	75-89% specialization.....	19	801	4,402	577	1,129	2,639	5,773	3,113	8,815	235
3999-	MISCELLANEOUS PRODUCTS, N.E.C.										
	Entire industry.....	1,499	30,138	129,350	24,534	47,811	91,085	252,170	210,922	458,471	9,888
	Establishments with—										
	90% or more specialization..	1,374	23,837	100,177	19,450	38,241	71,480	201,271	165,219	362,482	7,979
	75-89% specialization.....	22	1,841	9,908	1,443	2,919	6,322	19,307	22,573	41,142	311

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963—Continued

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
3999-	MISCELLANEOUS PRODUCTS, N.E.C.—Continued										
39991	Chemical fire extinguishing equipment and parts (primary product class of estab.).....	31	1,681	9,738	1,170	2,342	5,951	23,612	25,769	48,874	1,090
	Establishments with—										
	90% or more specialization.....	24	845	5,308	510	1,026	2,833	10,399	14,547	24,485	644
39992	Coin-operated amusement machines (primary product class of estab.)	12	2,180	10,996	1,853	3,794	8,012	15,303	15,095	31,361	137
39993	Other miscellaneous fabricated products (primary product class of estab.).....	572	19,926	89,000	16,250	31,750	61,925	166,236	141,918	305,158	6,333
	Establishments with—										
	90% or more specialization....	516	16,345	70,905	13,479	26,436	50,719	137,144	112,571	246,941	4,954
	75-89% specialization.....	30	1,152	5,593	947	1,934	3,600	11,572	15,053	25,882	436

n.e.c. Not elsewhere classified





## Ordnance and Accessories

### 19A Ordnance and accessories

For 1953 and earlier years, data for Major Group 19, Ordnance and Accessories, are included with Major Group 39 in table 1.

For 1954 and subsequent years Major Group 19 data are published separately. However, in some tables within these volumes, data for Major Group 19 are given both separately and combined with Major Group 39.

Major Group 19 covers establishments primarily engaged in manufacturing artillery, small arms, and related equipment; ammunition; tanks and specialized tank parts; sighting and fire control equipment; complete guided missiles and research and development on complete guided missiles and, miscellaneous ordnance and accessories, not elsewhere classified.



# ORDNANCE AND ACCESSORIES: MAJOR GROUP 19

Value Added by Manufacture by State: 1963

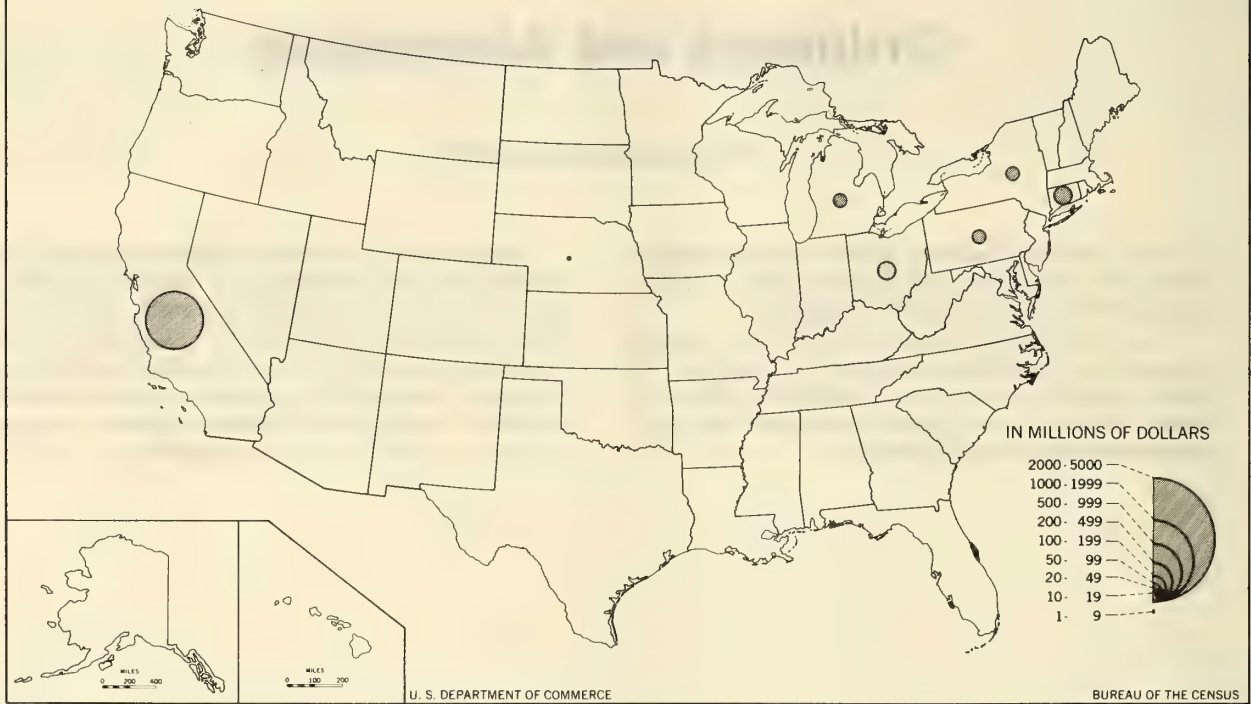


TABLE 1. General Statistics: 1963 and Earlier Years

Year and item	Establishments		All employees <sup>1</sup>		Production workers			Value added by manufacture, adjusted <sup>2</sup>	Cost of materials <sup>3</sup>	Value of shipments <sup>3</sup>	Capital expenditures, new <sup>4</sup>
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)				
ALL MANUFACTURING ESTABLISH- MENTS, TOTAL:											
1963 . . . . .	295	175	248 225	1 981 693	122 891	246 572	788 990	2 882 521	1 902 383	4 784 047	88 218
1958 . . . . .	235	159	198 598	1 322 867	114 319	237 750	652 349	1 956 378	(NA)	3 686 316	74 986
1954 . . . . .	(NA)	(NA)	230 247	1 038 121	170 972	342 458	716 273	1 658 385	(NA)	(NA)	61 073
ADMINISTRATIVE AND AUXILIARY UNITS:											
1963 <sup>B</sup> . . . . .	37	12	2 291	24 729	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1958 . . . . .	12	10	2 728	20 125	(X)	(X)	(X)	(X)	(X)	(X)	(X)
1954 . . . . .	(NA)	(NA)	( <sup>5</sup> )	( <sup>5</sup> )	(X)	(X)	(X)	(X)	(X)	(X)	(X)
OPERATING MANUFACTURING ESTABLISHMENTS:											
1963 <sup>B</sup> . . . . .	258	163	245 934	1 956 954	122 891	246 512	788 990	2 882 521	1 902 383	4 784 047	88 218
1958 <sup>B</sup> . . . . .	223	149	195 870	1 302 742	114 319	237 750	652 349	1 956 378	(NA)	3 686 316	74 986
1954 . . . . .	494	380	230 247	1 038 121	170 972	342 458	716 273	1 658 385	(X)	(X)	61 073
OPERATING MANUFACTURING ESTABLISHMENTS:											
1962 <sup>B</sup> <sup>7</sup> . . . . .	(NA)	(NA)	189 467	1 448 162	104 957	212 272	643 236	2 196 474	1 804 783	3 911 199	80 299
1961 <sup>B</sup> <sup>7</sup> . . . . .	(NA)	(NA)	148 635	1 029 453	81 573	158 603	494 087	1 804 286	1 648 072	3 417 227	52 094
1960 <sup>B</sup> <sup>7</sup> . . . . .	(NA)	(NA)	200 674	1 445 081	100 178	204 718	595 900	2 109 361	(NA)	(NA)	49 569
1959 <sup>7</sup> . . . . .	(NA)	(NA)	204 237	1 418 739	108 586	225 035	646 026	2 096 295	(NA)	(NA)	56 405
1957 <sup>7</sup> . . . . .	(NA)	(NA)	171 433	949 385	111 517	220 029	518 669	1 443 272	(NA)	(NA)	61 001
1956 <sup>7</sup> . . . . .	(NA)	(NA)	170 399	901 738	119 495	242 901	540 491	1 329 018	(NA)	(NA)	47 622
1955 <sup>7</sup> . . . . .	(NA)	(NA)	193 522	913 028	138 579	276 667	577 735	1 394 335	(NA)	(NA)	63 272

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The figures for 1939 through 1963 include data for employees of manufacturing establishments who were engaged in distribution and construction work. The extent to which data for such employees are included in the figures for earlier years is not known.

<sup>2</sup>For the period 1954 to 1963, figures represent adjusted value added by manufacture and for earlier years, unadjusted value added. Adjusted value added is equal to value of shipments (including resales of finished products) less cost of finished products, materials, supplies, fuel, electric energy and contract work, plus the net change in the value of finished products and work-in-process inventories between the beginning and end of the year, without adjustment for price changes. Unadjusted value added is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year.

<sup>3</sup>The total value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry classification. For more information, see Introduction.

<sup>4</sup>The figures for 1958 to 1963 include expenditures for plants under construction and not yet in operation.

<sup>5</sup>In 1954, data for administrative and auxiliary establishments for Major Group 19, "Ordnance and Accessories", are included with Major Group 39, "Miscellaneous Manufactures".

<sup>6</sup>Data for 1958 to 1963 include establishments primarily engaged in manufacturing complete guided missiles, and in performing research and development on complete guided missiles.

<sup>7</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958—Continued

Code	Industry group and geographic area	1963									1958	
		Establishments		All employees		Production workers			Value added by manufacture, adjusted	Capital expendi- tures, new	All employees	Value added by manufacture, adjusted
		Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages				
		(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(number)	(\$1,000)
19	ORDNANCE AND ACCESSORIES, TOTAL <sup>1</sup> . .	258	163	245 934	1 956 954	122 891	246 512	738 990	2 882 521	88 218	195 870	1 956 378

(<sup>1</sup>Detailed data by State for Major Group 19 are included in table 2 of the 4-digit industry chapter.)

TABLE 3. Detailed Statistics: 1963

Item	Ordnance and accessories (SIC 19)	Missiles and ammunition, n.e.c. (SIC 192)	Tanks and tank components (SIC 193)	Sighting and fire control equipment (SIC 194)	Small arms, 30 mm. and under (SIC 195)	Small arms ammunition (SIC 196)	Guns, howitzers, and mortars and ordnance accessories, n.e.c. (SIC 191 and 199)
ESTABLISHMENTS: TOTAL . . . . . NUMBER . .	258	75	26	13	52	31	61
WITH 1 TO 19 EMPLOYEES. . . . . DO. .	95	12	7	5	29	18	24
WITH 20 TO 99 EMPLOYEES . . . . . DO. .	48	12	8	1	11	3	13
WITH 100 EMPLOYEES OR MORE. . . . . DO. .	115	51	11	7	12	10	24
PROPRIETORS AND WORKING PARTNERS. . . . . DO. .	41	5	7	1	11	10	7
ALL EMPLOYEES (AVERAGE FOR THE YEAR). . . . . DO. .	245 934	181 486	11 307	9 249	9 995	8 909	24 988
PAYROLL (ALL EMPLOYEES); TOTAL FOR YEAR . . . . . \$1,000. .	1 956 954	1 528 011	76 583	66 949	57 347	51 895	176 169
PRODUCTION WORKERS:							
AVERAGE FOR THE YEAR. . . . . NUMBER . .	122 891	79 586	7 788	5 810	7 497	7 061	15 149
MARCH . . . . . DO. .	126 425	78 846	12 507	6 284	7 329	6 789	14 670
MAY . . . . . DO. .	120 191	78 474	6 168	5 950	7 324	7 131	15 144
AUGUST. . . . . DO. .	123 111	81 154	5 867	5 796	7 705	7 278	15 311
NOVEMBER. . . . . DO. .	121 843	79 860	6 603	5 211	7 635	7 051	15 483
MAN-HOURS . . . . . \$1,000. .	246 512	159 324	16 234	11 085	15 085	14 083	30 701
JANUARY-MARCH . . . . . DO. .	62 131	39 765	4 174	3 185	3 923	3 433	7 651
APRIL-JUNE. . . . . DO. .	61 149	39 098	4 099	2 892	3 729	3 542	7 789
JULY-SEPTEMBER. . . . . DO. .	60 549	39 449	3 864	2 643	3 503	3 556	7 534
OCTOBER-DECEMBER. . . . . DO. .	62 779	41 018	4 113	2 375	3 948	3 598	7 727
WAGES . . . . . \$1,000. .	788 990	532 846	48 421	36 639	39 288	38 099	93 697
COST OF MATERIALS, ETC.; TOTAL <sup>1</sup> . . . . . DO. .	1 902 383	1 339 221	258 861	60 258	42 965	85 715	115 363
MATERIALS; PARTS; CONTAINERS; AND SUPPLIES CONSUMED. . . . . DO. .	1 659 084	1 126 493	255 930	54 289	39 661	79 734	102 977
COST OF REALES. . . . . DO. .	128 253	(D)	180	1 975	1 329	3 193	(D)
FUELS CONSUMED. . . . . DO. .	9 604	(D)	603	134	942	1 410	(D)
ELECTRIC ENERGY:							
PURCHASED:							
QUANTITY. . . . . MILLION KW.-HRS. .	1 906	1 145	105	55	64	113	424
COST. . . . . \$1,000. .	20 176	12 047	1 226	616	807	1 259	4 221
GENERATED LESS SOLD . . . . . MILLION KW.-HRS. .	4 545	4 235	-	-	(D)	(D)	-
CONTRACT WORK . . . . . \$1,000. .	95 086	89 840	922	3 244	226	119	735
VALUE OF SHIPMENTS (INCLUDING REALES); TOTAL <sup>1</sup> . . . . . DO. .	4 784 047	3 556 864	394 144	156 568	133 042	192 454	350 975
VALUE OF REALES. . . . . DO. .	2 672 489	2 654 317	288	(D)	2 412	(D)	6 707
VALUE ADDED BY MANUFACTURE; ADJUSTED. . . . . DO. .	2 882 521	2 210 586	148 369	96 281	88 302	103 772	235 211
MANUFACTURERS' INVENTORIES:							
BEGINNING OF YEAR; TOTAL. . . . . DO. .	467 388	212 897	66 053	28 291	41 487	74 221	44 439
FINISHED PRODUCTS . . . . . DO. .	35 374	3 572	899	1 505	9 189	15 541	4 668
WORK-IN-PROCESS . . . . . DO. .	311 628	162 433	57 948	23 754	22 728	13 902	30 863
MATERIALS; SUPPLIES; FUEL; ETC. . . . . DO. .	120 388	46 894	7 206	3 032	9 570	44 778	8 908
END OF YEAR; TOTAL. . . . . DO. .	454 455	196 010	81 967	33 648	35 983	63 540	43 307
FINISHED PRODUCTS . . . . . DO. .	29 825	3 204	1 509	705	7 614	12 378	4 415
WORK-IN-PROCESS . . . . . DO. .	293 635	132 180	70 424	24 525	22 528	14 098	29 880
MATERIALS; SUPPLIES; FUEL; ETC. . . . . DO. .	130 995	60 626	10 034	8 418	5 841	37 064	9 012
EXPENDITURES FOR PLANT AND EQUIPMENT; TOTAL . . . . . DO. .	96 989	58 520	5 565	3 631	5 402	11 299	12 572
NEW; TOTAL. . . . . DO. .	88 218	56 468	5 249	3 631	5 123	5 478	12 269
NEW STRUCTURES AND ADDITIONS TO PLANT . . . . . DO. .	25 881	16 435	674	1 678	1 135	1 586	4 373
NEW MACHINERY AND EQUIPMENT . . . . . DO. .	62 337	40 033	4 575	1 953	3 988	3 892	7 896
USED PLANT AND EQUIPMENT. . . . . DO. .	8 771	2 052	316	-	279	5 821	303
SELECTED OPERATING RATIOS:							
PAYROLL/TOTAL EMPLOYMENT. . . . .	7 957	8 419	6 773	7 239	5 738	5 825	7 050
PRODUCTION WORKERS/TOTAL EMPLOYMENT . . . . .	.50	.44	.69	.63	.75	.79	.61
MAN-HOURS/PRODUCTION WORKERS. . . . .	2 006	2 002	2 084	1 908	2 012	1 994	2 027
PRODUCTION WORKER WAGES/MAN-HOURS . . . . .	3.20	3.34	2.98	3.31	2.60	2.71	3.05
COST OF MATERIALS AND PAYROLLS/TOTAL VALUE OF SHIPMENTS . . . . .	.81	.81	.85	.81	.75	.72	.83
COST OF MATERIALS/TOTAL VALUE OF SHIPMENTS. . . . .	.40	.38	.66	.38	.32	.45	.33
ADJUSTED VALUE ADDED/TOTAL EMPLOYMENT . . . . .	11 721	12 180	13 122	10 410	8 835	11 648	9 413
SALARIES AND WAGES/ADJUSTED VALUE ADDED . . . . .	.68	.69	.52	.70	.65	.50	.75

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See appendix A for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.  
<sup>1</sup>The value of shipments and cost of materials for industry groups (2-and3-digit) include extensive duplication arising from shipments between establishments in the same industry. For a more complete explanation, see Introduction.





## ORDNANCE AND ACCESSORIES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

### SIC Code and Title

- 1911—Guns, Howitzers, Mortars, and Related Equipment
- 1925—Guided Missiles and Space Vehicles, Completely Assembled
- 1929—Ammunition, Not Elsewhere Classified
- 1931—Tanks and Tank Components
- 1941—Sighting and Fire Control Equipment
- 1951—Small Arms
- 1961—Small Arms Ammunition
- 1999—Ordnance and Accessories, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

### 1911—GUNS, HOWITZERS, MORTARS, AND RELATED EQUIPMENT

This industry comprises establishments primarily engaged in the manufacture of naval, aircraft, anti-aircraft, tank, coast, and field artillery having a bore over 30 mm. (or over 1.18 inch), and components. Establishments primarily engaged in manufacturing small arms and parts 30 mm. (or 1.18 inch) and below are classified in industry 1951. However, all statistics for industry 1911 combined with those for industry 1999 in 1963, with the exception of a value of shipments figure for the products primary to industry 1911. The latter figure is shown separately in table 6A.

### 1925—GUIDED MISSILES AND SPACE VEHICLES, COMPLETELY ASSEMBLED

This industry comprises establishments primarily engaged in the manufacture of completely assembled guided missiles and space vehicles. Establishments primarily engaged in manufacturing guided missiles and space vehicle engines and engine parts are classified in industry 3722; space satellites, guided missile and space vehicle airborne and ground guidance, check-out and launch electronic systems and components in industry 3662; and guided missile and space vehicle airframes, nose cones, and space capsules in industry 3729. This industry is now a separate one under the Standard Industrial Classification System. In 1958 the SIC included it as part of industry 1929; it was published separately at that time as census industry 1925. For a detailed list of products of industry 1925, refer to table 6A, product codes 1925111 to 1925115.



Value of work done and other receipts of the Complete Guided Missiles Industry totaled \$3,054 million. This amount included work on complete guided missiles and space vehicles (primary products) valued at \$2,735 million, shipments of other products (secondary products) valued at \$176 million, and miscellaneous receipts at \$143 million.

This industry's receipts for work done on complete guided missiles and space vehicles represented 94 percent of its total product shipments. The industry specialization ratio in 1958 was 73 percent. Secondary products shipped by this industry in 1963 consisted mainly of aircraft and parts (\$131 million).

Shipments of complete guided missiles and space vehicles by this industry represented 69 percent of all shipments of these products (\$3,957 million) by all industries. In 1958 the coverage ratio was 83 percent. Other industries shipping complete guided missiles and space vehicles consisted mainly of industry 3721, Aircraft, and industry 3729, Aircraft Equipment, N.E.C.

#### 1929—AMMUNITION, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in the manufacture of ammunition, n.e.c., or in loading and assembling ammunition over 30 mm. (or over 1.18 inch) for naval, aircraft, anti-aircraft, tank, coast, and field artillery; including component parts. This industry also includes establishments primarily engaged in manufacturing bombs, mines, torpedoes, grenades, depth charges, chemical warfare projectiles, and their component parts. Establishments primarily engaged in manufacturing small arms ammunition are classified in industry 1961; explosives in industry 2892; and military pyrotechnics in industry 2899. This industry has been amended to include industry 1921, Artillery Ammunition and industry 1922, Ammunition, Loading and Assembling, which were defined as separate industries in the 1957 Standard Industrial Classification Manual. Also, establishments producing guided missiles and space vehicles are now classified in industry 1925, Complete Guided Missiles. For a detailed list of products of industry 1929, refer to table 6A, product class codes 19291 to 19293.

The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been significantly changed from the classification system used in 1958. The change in composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is due principally to industries 1921, Artillery Ammunition, and 1922, Ammunition Loading and Assembling, being included in this industry for 1963.

Value of shipments and other receipts of the Ammunition, N.E.C., Industry totaled \$503 million. This amount included shipments of ammunition, n.e.c. (primary products) valued at \$290 million, shipments of other products (secondary products) valued at \$123 million, and miscellaneous receipts (mainly contract work on materials owned by others) at \$89 million.

This industry's shipments of ammunition, n.e.c., represented 70 percent of its total product shipments.

Shipments of ammunition, n.e.c., by this industry represented 82 percent of all shipments of these products (\$356 million) by all industries. Other industries shipping ammunition, except for small arms, n.e.c. (primary products) included industry 3461, Metal Stampings; industry 3545, Machine Tool Accessories; and industry 3621, Motors and Generators.

#### 1931—TANKS AND TANK COMPONENTS

This industry comprises establishments primarily engaged in the manufacture or assembly of complete tanks and other tracked military vehicles and specialized components for

tanks. Establishments primarily engaged in manufacturing wheeled military vehicles are classified in group 371, and tank engines in industry 3519.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Tanks and Tank Components Industry totaled \$394 million. This amount included shipments of tanks and tank components (primary products) valued at \$358 million, shipments of other products (secondary products) valued at \$18 million, and miscellaneous receipts at \$18 million.

This industry's shipments of tanks and tank components represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was 89 percent.

Shipments of tanks and tank components by this industry in 1963 represented 79 percent of all shipments of these products (\$454 million) by all industries. In 1958 the coverage ratio was 84 percent. Another industry shipping tanks and tank components was industry 3717, Motor Vehicles and Parts, \$5 million.

#### 1941—SIGHTING AND FIRE CONTROL EQUIPMENT

This industry comprises establishments primarily engaged in the manufacture of sighting and fire control equipment, but which are not engaged in manufacturing optical lenses and prisms. Important products of this industry include bomb sights, percentage correctors, wind correctors, directors, and sound locators. Establishments engaged in manufacturing optical lenses and prisms, and also manufacturing sighting and fire control equipment, are classified in industry 3831.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Sighting and Fire Control Equipment Industry totaled \$157 million. This amount included shipments of sighting and fire control equipment (primary products) valued at \$86 million, shipments of other products (secondary products) valued at \$66 million, and miscellaneous receipts at \$5 million.

This industry's shipments of sighting and fire control equipment represented 57 percent of its total product shipments. The industry specialization ratio in 1958 was 62 percent. Secondary products shipped by this industry in 1963 consisted mainly of test equipment for testing electrical, radio, and communication circuits and motors, electronic navigational aids, and missile-borne and space vehicle-borne navigation and guidance systems and equipment.

Shipments of sighting and fire control equipment by this industry represented 80 percent of all shipments of these products (\$107 million) by all industries. In 1958 the coverage ratio was 89 percent. Another industry shipping sighting and fire control equipment was industry 3662, Radio, TV Communications Equipment, \$13 million.

#### 1951—SMALL ARMS

This industry comprises establishments primarily engaged in the manufacture of small firearms having a bore 30 mm. (or 1.18 inch) and below, and parts for small firearms. Establishments primarily engaged in manufacturing artillery and mortars having a bore over 30 mm. (or over 1.18 inch), and component parts are classified in industry 1911. For a detailed list of products of industry 1951, refer to table 6A, product codes 1951113 to 1951281.



Value of shipments and other receipts of the Small Arms, 30 mm. and Under, Industry totaled \$133 million. This amount included shipments of small arms, 30 mm. and under, (primary products) valued at \$122 million, shipments of other products (secondary products) valued at \$6 million, and miscellaneous receipts (mainly resales) at \$5 million.

This industry's shipments of small arms, 30 mm. and under, represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent.

Shipments of small arms, 30 mm. and under, by this industry represented 82 percent of all shipments of these products (\$149 million) by all industries. In 1958 the coverage ratio was also 81 percent. Other industries shipping small arms, 30mm. and under, included industry 3722, Aircraft Engines and Parts; and industry 3729, Aircraft Equipment, N.E.C.

#### 1961—SMALL ARMS AMMUNITION

This industry comprises establishments primarily engaged in the manufacture of ammunition for small arms having a bore of 30 mm. (or 1.18 inch) and below. Establishments primarily engaged in manufacturing ammunition except for small arms are classified in industry 1929, blasting and detonating caps and safety fuses in industry 2892, and fireworks in industry 2899. For a detailed list of products of industry 1961, refer to table 6A, product codes 1961012 to 1961089.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Small Arms Ammunition Industry totaled \$192 million. This amount included shipments of small arms ammunition (primary products) valued at \$177 million and shipments of other products (secondary products) and miscellaneous receipts which together totaled \$16 million.

This industry's shipments of small arms ammunition are between 85 and 99 percent of its total product shipments. The industry specialization ratio in 1958 also was between 85 and 99 percent.

Shipments of small arms ammunition by this industry represented 92 percent of all shipments of these products (\$192 million) by all industries. In 1958 the coverage ratio was 94 percent. Other industries shipping small arms ammunition included industry 1999, Ordnance and Accessories, N.E.C.; industry 3352, Aluminum Rolling and Drawing; and industry 3694, Engine Electrical Equipment.

#### 1999—ORDNANCE AND ACCESSORIES, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in the manufacture of ordnance and accessories, n.e.c. Complete guided missiles and space vehicles are classified in industry 1925. However, in 1963 all statistics for industry 1999 include those for industry 1911, with the exception of a value of shipments figure for the products primary to industry 1911. The latter figure is shown separately in table 6A.

Therefore, the textual material below represent the activities of industries 1999 and 1911 combined.

Value of shipments and other receipts of the Ordnance and Accessories, N.E.C., Industry (including SIC 1911) totaled \$351 million. This amount included shipments of ordnance and accessories, n.e.c.; and howitzers, mortars, and other artillery over 30 mm. (primary products) valued at \$176 million, shipments of other products (secondary products) valued at \$49 million, and miscellaneous receipts (mainly contract work on materials owned by others) at \$126 million.

These industry's shipments of ordnance and accessories, n.e.c., and howitzers, mortars, and other artillery over 30 mm. represented 78 percent of the total product shipments. (The specialization ratio for industry 1999 alone is not affected by the inclusion of industry 1911).

Shipments of ordnance and accessories, n.e.c., and howitzers, mortars, and other artillery over 30 mm. represented 69 percent of all shipments of these products (\$256 million) by all industries. (The coverage ratio for industry 1999 alone in 1963 was 72 percent.) Other industries shipping ordnance and accessories, n.e.c., and howitzers, mortars, and other artillery over 30 mm. consisted mainly of industry 3729, Aircraft Equipment, N.E.C., \$7 million; industry 3662, Radio, TV Communication Equipment, \$6 million; and industry 3722, Aircraft Engines and Parts, \$4 million.

### ORDNANCE AND ACCESSORIES, Major Group 19 Value Added by Manufacture by State: 1963

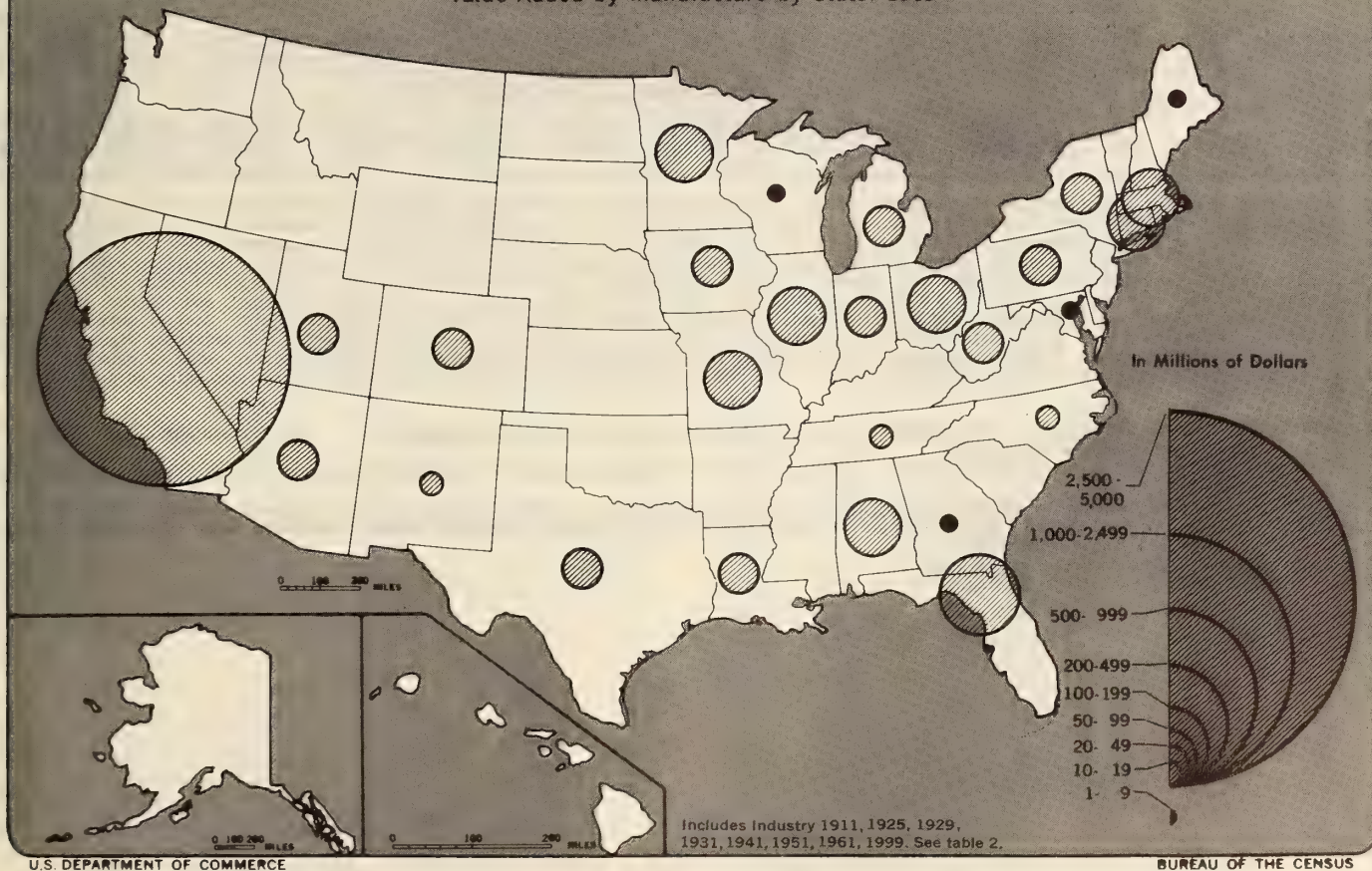




TABLE 1. General Statistics: 1963 and Earlier Years

Year	Com- panies  (number)	Establishments		All employees		Production workers			Value added by manufacture, adjusted  (\$1,000)	Cost of materials  (\$1,000)	Value of shipments  (\$1,000)	Capital expend- itures, new  (\$1,000)	Spe- cial- ization ratio (per- cent)	Cov- erage ratio (per- cent)	
		Total  (number)	With 20 employ- ees or more (number)	Total  (number)	Payroll  (\$1,000)	Total  (number)	Man-hours  (1,000)	Wages  (\$1,000)							
	INDUSTRY 1911.—GUNS, HOWITZERS, AND MORTARS														
1963.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	(NA)	(NA)	
1958.....	4	5	4	251	1,970	124	297	819	2,942	3,919	6,892	(D)	(NA)	(NA)	
	INDUSTRY 1925.—COMPLETE GUIDED MISSILES														
1963.....	25	31	29	148,908	1,325,803	54,527	110,358	395,184	<sup>2</sup> 1,924,812	1,129,051	<sup>3</sup> 3,053,863	48,849	94	69	
1958.....	18	26	26	108,431	788,414	60,894	129,208	370,703	<sup>2</sup> 1,153,021	1,053,689	<sup>3</sup> 2,206,710	46,137	74	83	
	INDUSTRY 1929.—AMMUNITION, N.E.C.														
1963.....	38	44	34	32,578	202,208	25,059	48,966	137,662	285,774	210,170	503,001	7,619	70	82	
1958.....	48	50	37	11,331	59,068	7,164	14,239	34,265	87,027	52,367	138,445	46,187	(NA)	(NA)	
	INDUSTRY 1931.—TANKS AND TANK COMPONENTS														
1963.....	23	26	19	11,307	76,583	7,788	16,234	48,421	148,369	258,861	394,144	5,249	95	79	
1958.....	15	17	10	7,069	39,861	4,619	9,651	25,197	63,711	143,863	212,372	1,524	89	84	
	INDUSTRY 1941.—SIGHTING AND FIRE CONTROL EQUIPMENT														
1963.....	13	13	8	9,249	66,949	5,810	11,085	36,639	96,281	60,258	156,568	3,631	57	80	
1958.....	18	20	15	36,432	237,193	19,935	40,511	112,512	360,402	324,952	682,580	4,088	62	89	
	INDUSTRY 1951.—SMALL ARMS, 30 MM. AND UNDER														
1963.....	52	52	23	9,995	57,347	7,497	15,085	39,288	88,302	42,965	133,042	5,123	95	82	
1958.....	34	34	23	8,010	39,213	5,823	11,580	27,240	51,005	20,442	79,107	2,128	91	81	
	INDUSTRY 1961.—SMALL ARMS AMMUNITION														
1963.....	27	31	13	8,909	51,895	7,061	14,083	38,099	103,772	85,715	192,454	5,478	(NA)	92	
1958.....	20	24	12	9,049	44,215	5,682	11,307	26,033	82,733	75,672	167,446	4,166	(NA)	94	
	INDUSTRY 1999.—ORDNANCE AND ACCESSORIES, N.E.C.														
1963 <sup>1</sup> .....	54	60	37	24,988	176,169	15,149	30,701	93,697	235,211	115,363	350,975	12,269	78	69	
1958.....	45	47	22	15,297	92,808	10,078	20,957	55,580	155,537	35,384	192,764	10,756	(NA)	(NA)	

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>Industry 1911 combined with industry 1999 for 1963. However, a value of shipments figure for the products primary to this industry is shown in table 6A.

<sup>2</sup>The adjusted value added for the Guided Missiles and Space Vehicles Industry does not take into account the change in inventory between the beginning and end of the year, since the figures reported by establishments in this industry represent value of work done rather than value of shipments. It does include value added by resales.

<sup>3</sup>For industry 1925, represents value of work done.

<sup>4</sup>Excludes 1958 SIC 1922, ammunition loading.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

Geographic area <sup>1</sup>	1963											1958	
	Establishments		All employees		Production workers			Value added by manufacture, adjusted	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture adjusted
	Total	With 20 employees or more	Total	Payroll	Total	Man-hours	Wages						
	(number)	(number)	(number)	(\$1,000)	(number)	(1,000)	(\$1,000)						
	MAJOR GROUP 19.—ORDNANCE AND ACCESSORIES												
Total.....	257	163	245,934	1,956,954	122,891	246,512	788,990	2,882,521	1,902,383	4,784,047	88,218	(NA)	(NA)
New England.....	32	22	15,151	87,441	11,014	21,957	57,874	143,317	85,041	231,565	6,291	(NA)	(NA)
Connecticut.....	19	12	8,099	49,084	6,245	12,404	33,658	79,563	48,304	130,145	5,369	(NA)	(NA)
Middle Atlantic....	39	28	8,659	51,754	6,652	13,525	35,733	86,858	92,571	181,874	2,681	(NA)	(NA)
New York.....	13	9	4,877	30,751	3,573	6,946	20,017	48,383	32,418	78,507	2,169	(NA)	(NA)
Pennsylvania.....	23	17	3,713	20,546	3,030	6,459	15,524	38,171	59,102	101,857	502	(NA)	(NA)
North Central.....	70	45	39,647	267,097	26,029	52,321	156,464	397,707	349,189	753,584	11,235	(NA)	(NA)
Ohio.....	14	10	6,212	44,104	3,779	7,596	24,144	79,703	78,317	162,425	(D)	(NA)	(NA)
Michigan.....	19	9	2,182	14,909	1,286	2,646	7,856	30,137	58,687	88,452	244	(NA)	(NA)
Nebraska.....	3	2	119	513	101	227	361	558	400	989	28	(NA)	(NA)
South Atlantic.....	18	12	15,551	127,891	5,426	10,916	28,651	233,223	115,900	329,096	10,847	(NA)	(NA)
East South Central..	11	9	7,075	47,336	4,776	8,719	25,670	65,134	16,652	83,089	1,844	(NA)	(NA)
West South Central..	15	6	9,902	63,049	6,852	13,499	35,743	86,634	25,872	112,283	2,948	(NA)	(NA)
Mountain.....	17	11	13,587	103,262	8,067	16,234	54,368	126,989	90,609	221,448	6,686	(NA)	(NA)
Pacific.....	55	30	136,362	1,209,124	54,075	109,341	394,487	1,742,659	1,126,549	2,871,108	45,686	(NA)	(NA)
California.....	51	30	136,342	1,209,043	54,060	109,310	394,431	1,742,508	1,126,402	2,870,805	45,675	(NA)	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. MG 19, Ordnance and Accessories: New England—Maine, 1 (500-999); Massachusetts, 11 (5,000-9,999); Rhode Island, 1 (1-19); Middle Atlantic—New Jersey, 3 (20-99); East North Central—Indiana, 9 (5,000-9,999); Illinois, 8 (5,200); Wisconsin, 2 (500-999); West North Central—Minnesota, 3 (5,930); Iowa, 6 (2,736); Missouri, 6 (11,024); South Atlantic—Maryland, 3 (1,000-2,499); Virginia, 1 (20-99); West Virginia, 3 (1,000-2,499); North Carolina, 3 (1,493); Georgia, 1 (100-249); Florida, 7 (11,330); East South Central—Tennessee, 6 (2,024); Alabama, 5 (5,051); West South Central—Arkansas, 1 (1-19); Louisiana, 3 (2,500-4,999); Oklahoma, 3 (1-19); Texas, 8 (5,000-9,999); Mountain—Idaho, 2 (100-249); Colorado, 7 (3,065); New Mexico, 3 (2,711); Arizona, 3 (4,165); Utah, 2 (2,500-4,999); Pacific—Oregon, 4 (20-99).



TABLE 3. Detailed Statistics: 1963

Item	Complete guided missiles (SIC 1925)	Ammunition, n.e.c. (SIC 1929)	Tanks and tank components (SIC 1931)	Sighting and fire control equipment (SIC 1941)	Small arms, 30 mm. and under (SIC 1951)	Small arms ammunition (SIC 1961)	Guns, howitzers, and mortars and ordnance and accessories, n.e.c. (SIC 1911 and 1999)
Primary product specialization ratio <sup>1</sup> .....	.94	.70	.95	.57	.95	(NA)	.78
Coverage ratio <sup>2</sup> .....	.69	.82	.79	.80	.82	.92	.69
Establishments, total.....number..	31	44	26	13	52	31	60
With 1 to 19 employees.....do....	2	10	7	5	29	18	24
With 20 to 99 employees.....do....	6	6	8	1	11	3	13
With 100 employees or more.....do....	23	28	11	7	12	10	24
Proprietors and working partners.....do....	-	5	7	1	11	10	7
All employees (average for the year).....do....	148,908	32,578	11,307	9,249	9,995	8,909	24,988
Payroll (all employees), total for year.....\$1,000..	1,325,803	202,208	76,583	66,949	57,347	51,895	176,169
Production workers:							
Average for the year.....number..	54,527	25,059	7,788	5,810	7,497	7,061	15,149
March.....do....	53,318	25,528	12,507	6,284	7,329	6,789	14,670
May.....do....	52,739	25,735	6,168	5,950	7,324	7,131	15,144
August.....do....	55,658	25,496	5,867	5,796	7,705	7,278	15,311
November.....do....	56,394	23,466	6,603	5,211	7,635	7,051	15,483
Man-hours.....1,000..	110,358	48,966	16,234	11,085	15,085	14,083	30,701
January-March.....do....	26,881	12,884	4,174	3,185	3,923	3,433	7,651
April-June.....do....	26,584	12,514	4,099	2,892	3,729	3,542	7,789
July-September.....do....	27,589	11,860	3,864	2,643	3,503	3,556	7,534
October-December.....do....	29,304	11,714	4,113	2,375	3,948	3,598	7,727
Wages.....\$1,000..	395,184	137,662	48,421	36,639	39,288	38,099	93,697
Cost of materials, etc., total.....do....	1,129,051	210,170	258,861	60,258	42,965	85,715	115,363
Materials, parts, containers, and supplies consumed.....do....	946,198	180,295	255,930	54,289	39,661	79,734	102,977
Cost of resales.....do....	(D)	26	180	1,975	1,329	3,193	(D)
Fuels consumed.....do....	(D)	2,957	603	134	942	1,410	(D)
Electric energy:							
Purchased:							
Quantity.....million kw.-hrs..	929	216	105	55	64	113	424
Cost.....\$1,000..	8,988	3,059	1,226	616	807	1,259	4,221
Generated less sold.....million kw.-hrs..	(D)	(D)	-	-	(D)	(D)	-
Contract work.....\$1,000..	66,007	23,833	922	3,244	226	119	735
Value of shipments (including resales), total <sup>3</sup> .....do....	3,053,863	503,001	394,144	156,568	133,042	192,454	350,975
Value of resales.....do....	(D)	50	288	(D)	2,412	(D)	(D)
Value added by manufacture, adjusted <sup>4</sup> .....do....	1,924,812	285,774	148,369	96,281	88,302	103,772	235,211
Manufacturers' inventories:							
Beginning of year, total.....do....	159,861	53,036	66,053	28,291	41,487	74,221	44,439
Finished products.....do....	101	3,471	899	1,505	9,189	15,541	4,668
Work-in-process.....do....	128,227	34,206	57,948	23,754	22,728	13,902	30,863
Materials, supplies, fuel, etc.....do....	31,533	15,361	7,206	3,032	9,570	44,778	8,908
End of year, total.....do....	151,598	44,412	81,967	33,648	35,983	63,540	43,307
Finished products.....do....	40	3,164	1,509	705	7,614	12,378	4,415
Work-in-process.....do....	104,724	27,456	70,424	24,525	22,528	14,098	29,880
Materials, supplies, fuel, etc.....do....	46,834	13,792	10,034	8,418	5,841	37,064	9,012
Expenditures for plant and equipment, total.....do....	50,561	7,959	5,565	3,631	5,402	11,299	12,572
New, total.....do....	48,849	7,619	5,249	3,631	5,123	5,478	12,269
New structures and additions to plant.....do....	13,458	2,977	674	1,678	1,135	1,586	4,373
New machinery and equipment.....do....	35,391	4,642	4,575	1,953	3,988	3,892	7,896
Used plant and equipment.....do....	1,712	340	316	-	279	5,821	303
Selected operating ratios:							
Payroll/Total employment.....	8,903	6,207	6,773	7,239	5,738	5,825	7,050
Production workers/Total employment.....	.37	.77	.69	.63	.75	.79	.61
Man-hours/Production workers.....	2,023	1,954	2,084	1,908	2,012	1,994	2,027
Production worker wages/Man-hours.....	3.58	2.81	2.98	3.31	2.60	2.71	3.05
Cost of materials and payrolls/Total value of shipments.....	.80	.82	.85	.81	.75	.72	.83
Cost of materials/Total value of shipments.....	.37	.42	.66	.38	.32	.45	.33
Adjusted value added/Total employment.....	12,764	9,134	13,122	10,410	8,835	11,648	9,413
Salaries and wages/Adjusted value added.....	.70	.68	.52	.70	.65	.50	.75

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

<sup>1</sup>The proportion of product shipments (both primary and secondary) of the industry represented by primary products.

<sup>2</sup>The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

<sup>3</sup>For industry 1925, represents value of work done.

<sup>4</sup>See table 1, footnote 2.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

Item	Establishments, total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 to 2,499 employees	2,500 employees and over
INDUSTRY 1925.—COMPLETE GUIDED MISSILES											
Establishments.....number..	31	-	2	-	4	2	2	2	-	6	13
All employees:											
Total.....do.....	148,908	-	279	-	(D)	(D)	976	(D)	-	9,409	138,244
Payroll.....\$1,000..	1,325,803	-	<u>2,923</u>	-	(D)	(D)	<u>8,516</u>	(D)	-	93,187	1,221,177
Value added, adjusted <sup>1</sup> .....do....	1,924,812	-	<u>4,570</u>	-	(D)	(D)	<u>25,459</u>	(D)	-	153,194	1,741,589
Value of shipments.....do....	3,053,863	-	<u>7,078</u>	-	(D)	(D)	<u>40,066</u>	(D)	-	232,077	2,774,642
Capital expenditures, new...do....	48,849	-	<u>56</u>	-	(D)	(D)	<u>1,366</u>	(D)	-	2,853	44,574
INDUSTRY 1929.—AMMUNITION, N.E.C.											
Establishments.....number..	44	6	3	1	5	1	10	3	7	4	4
All employees:											
Total.....do.....	32,578	9	37	(D)	223	(D)	1,615	1,155	5,716	7,297	16,526
Payroll.....\$1,000..	202,208	64	<u>262</u>	(D)	<u>1,420</u>	(D)	9,273	6,796	33,807	40,471	110,115
Value added, adjusted.....do....	285,772	133	<u>295</u>	(D)	<u>4,155</u>	(D)	14,485	10,663	38,538	52,743	164,762
Value of shipments.....do....	503,001	183	<u>736</u>	(D)	<u>9,140</u>	(D)	25,697	21,024	84,273	85,399	276,549
Capital expenditures, new...do....	7,619	<u>2,572</u>	(D)	(D)	(D)	(D)	466	105	846	3,216	2,414
INDUSTRY 1931.—TANKS AND TANK COMPONENTS											
Establishments.....number..	26	4	2	1	3	5	3	4	1	1	2
All employees:											
Total.....do.....	11,307	3	25	(D)	111	378	498	1,697	<u>8,595</u>	(D)	(D)
Payroll.....\$1,000..	76,583	17	<u>124</u>	(D)	509	2,666	2,384	11,433	<u>59,450</u>	(D)	(D)
Value added, adjusted.....do....	148,369	31	<u>182</u>	(D)	745	3,619	4,280	16,139	<u>123,373</u>	(D)	(D)
Value of shipments.....do....	394,144	60	<u>425</u>	(D)	2,246	9,639	13,099	61,342	<u>307,333</u>	(D)	(D)
Capital expenditures, new...do....	5,249	<u>5</u>	(D)	(D)	13	<u>5,231</u>	(D)	(D)	(D)	(D)	(D)
INDUSTRY 1941.—SIGHTING AND FIRE CONTROL EQUIPMENT											
Establishments.....number..	13	3	1	1	-	1	3	-	1	2	1
All employees:											
Total.....do.....	9,249	124	(D)	(D)	-	(D)	1,068	-	(D)	8,057	(D)
Payroll.....\$1,000..	66,949	<u>700</u>	(D)	(D)	-	(D)	<u>7,581</u>	-	(D)	<u>58,668</u>	(D)
Value added, adjusted.....do....	96,281	<u>822</u>	(D)	(D)	-	(D)	<u>11,569</u>	-	(D)	<u>83,890</u>	(D)
Value of shipments.....do....	156,568	<u>1,368</u>	(D)	(D)	-	(D)	<u>18,484</u>	-	(D)	<u>136,716</u>	(D)
Capital expenditures, new...do....	3,631	<u>23</u>	(D)	(D)	-	(D)	<u>844</u>	-	(D)	<u>2,764</u>	(D)
INDUSTRY 1951.—SMALL ARMS, 30 MM. AND UNDER											
Establishments.....number..	52	21	3	5	7	4	2	3	5	1	1
All employees:											
Total.....do.....	9,995	25	22	68	245	721	(D)	1,179	7,735	(D)	(D)
Payroll.....\$1,000..	57,347	229	103	324	1,265	<u>3,905</u>	(D)	6,470	<u>45,051</u>	(D)	(D)
Value added, adjusted.....do....	88,302	459	139	598	2,664	<u>7,185</u>	(D)	9,671	<u>67,586</u>	(D)	(D)
Value of shipments.....do....	133,042	659	244	871	3,765	<u>12,610</u>	(D)	14,928	<u>99,965</u>	(D)	(D)
Capital expenditures, new...do....	5,123	14	7	26	74	<u>724</u>	(D)	182	<u>4,096</u>	(D)	(D)
INDUSTRY 1961.—SMALL ARMS AMMUNITION											
Establishments.....number..	31	14	2	2	3	-	4	2	1	2	1
All employees:											
Total.....do.....	8,909	21	39	(D)	104	-	1,122	(D)	7,623	(D)	(D)
Payroll.....\$1,000..	51,895	90	<u>101</u>	(D)	526	-	<u>6,106</u>	(D)	<u>45,072</u>	(D)	(D)
Value added, adjusted.....do....	103,772	207	<u>291</u>	(D)	955	-	<u>12,376</u>	(D)	<u>89,943</u>	(D)	(D)
Value of shipments.....do....	192,454	472	<u>542</u>	(D)	2,078	-	<u>21,396</u>	(D)	<u>167,966</u>	(D)	(D)
Capital expenditures, new...do....	5,478	17	<u>41</u>	(D)	421	-	<u>547</u>	(D)	<u>4,452</u>	(D)	(D)
INDUSTRIES 1911 AND 1999.—GUNS, HOWITZERS, AND MORTARS AND ORDNANCE AND ACCESSORIES, N.E.C.											
Establishments.....number..	60	16	4	3	4	9	12	3	3	2	4
All employees:											
Total.....do.....	24,988	51	(D)	40	105	718	2,061	1,135	4,495	(D)	16,383
Payroll.....\$1,000..	176,169	422	(D)	271	441	3,486	11,222	6,189	<u>30,700</u>	(D)	123,438
Value added, adjusted.....do....	235,211	<u>739</u>	(D)	268	501	5,837	17,664	10,888	<u>60,456</u>	(D)	138,858
Value of shipments.....do....	350,975	<u>4,945</u>	(D)	351	1,221	9,162	30,496	19,505	<u>80,275</u>	(D)	205,020
Capital expenditures, new...do....	12,269	<u>25</u>	(D)	21	51	137	4,319	356	<u>2,234</u>	(D)	5,126

- Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

n.e.c. Not elsewhere classified.

<sup>1</sup>See footnote 2, table 1.<sup>2</sup>Includes capital expenditures of approximately \$200-\$500 thousand for plants under construction but not in operation.



**TABLE 5A. Industry-Product Analysis—Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958**

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such

as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

Ind. code	Industry and census year	Value of shipments					Value of primary product shipments			
		Total	Primary products	Secondary products	Miscellaneous receipts	Primary product specialization ratio	Total, made in all industries	Made in this industry	Made in other industries	Coverage ratio
		(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. B+C (percent)	(\$1,000)	(\$1,000)	(\$1,000)	Col. B Col. F (percent)
		A	B	C	D	E	F	G	H	I
1911	Guns, howitzers, and mortars.....1963.. 1958..	( <sup>1</sup> ) 6,892	( <sup>1</sup> ) ( <sup>2</sup> )	( <sup>1</sup> ) ( <sup>2</sup> )	( <sup>1</sup> ) ( <sup>2</sup> )	(NA) (NA)	( <sup>1</sup> ) ( <sup>2</sup> )	( <sup>1</sup> ) ( <sup>2</sup> )	( <sup>1</sup> ) ( <sup>2</sup> )	(NA) (NA)
1925	Complete guided missiles.....1963.. 1958..	<sup>3</sup> 3,053,863 <sup>3</sup> 2,206,710	2,734,776 1,565,534	175,678 584,218	143,409 56,958	94 73	<sup>3</sup> 3,957,159 <sup>3</sup> 1,886,682	2,734,776 1,565,534	1,222,383 321,148	69 83
1929	Ammunition, n.e.c.....1963.. 1958..	503,001 138,445	290,272 (NA)	123,418 (NA)	89,311 (NA)	70 (NA)	355,893 133,031	290,272 (NA)	65,621 (NA)	82 (NA)
1931	Tanks and tank components.....1963.. 1958..	394,144 212,372	358,016 177,756	17,746 20,698	18,382 13,918	95 89	454,396 210,752	358,016 177,756	96,380 32,996	79 84
1941	Sighting and fire control equipment.....1963.. 1958..	156,568 682,580	85,739 417,170	65,579 253,267	5,250 12,143	57 62	106,984 470,914	85,739 417,170	21,245 53,744	80 89
1951	Small arms, 30 mm. and under.....1963.. 1958..	133,042 79,107	122,227 69,611	5,882 6,961	4,933 2,535	95 91	148,542 86,037	122,227 69,611	26,315 16,426	82 81
1961	Small arms ammunition.....1963.. 1958..	192,454 167,446	176,617 141,352	( <sup>4</sup> ) ( <sup>4</sup> )	<sup>4</sup> 15,837 <sup>4</sup> 26,094	( <sup>4</sup> ) ( <sup>4</sup> )	192,399 150,651	176,617 141,352	15,782 9,299	92 94
1999	Ordnance and accessories, n.e.c....1963.. 1958..	<sup>1</sup> 350,975 <sup>2</sup> 208,698	<sup>1</sup> 175,523 <sup>2</sup> 139,761	<sup>1</sup> 49,195 <sup>2</sup> 11,872	<sup>1</sup> 126,257 <sup>2</sup> 57,065	<sup>5</sup> 78 (NA)	<sup>1</sup> 255,940 <sup>2</sup> 210,043	<sup>1</sup> 175,523 <sup>2</sup> 139,761	<sup>1</sup> 80,417 <sup>2</sup> 70,282	<sup>6</sup> 69 (NA)

Note: See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>Data for industry 1911 included with industry 1999 in 1963.

<sup>2</sup>Data for industry 1911 and a portion of industry 1929 has been included with industry 1999 in 1958 to avoid disclosing figures of individual companies.

<sup>3</sup>Represents value of work done.

<sup>4</sup>For industry 1961, value of shipments of secondary products are included with miscellaneous receipts. The specialization ratios are between 85 and 99 percent.

<sup>5</sup>The inclusion of data for industry 1911 does not effect the specialization ratio for industry 1999 in 1963.

<sup>6</sup>The coverage ratio for industry 1999 alone for 1963 is 72 percent. The difference in coverage by inclusion of the products primary to industry 1911 results from the fact that most of the value for industry 1911 is accounted for by establishments in industries other than 1911.

TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)

miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

Prod. class code	Class of products and miscellaneous receipts	All industries	Complete guided missiles (SIC 1925)	Other industries
COMPLETE GUIDED MISSILES INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	3,053,863	(X)
	Primary products.....	3,957,159	2,734,776	1,222,383
19251	Guided missiles complete.....	1,644,818	1,059,736	<sup>1</sup> 584,445
19253	Research and development on guided missiles (complete).....	1,628,268	1,675,040	<sup>2</sup> 637,938
19255	All other services on complete missiles and space vehicles.....	684,710		
	Secondary products.....	(X)	175,678	(X)
36626	Electronic military, industrial, and commercial equipment, n.e.c.....	(X)	16,438	(X)
372--	Aircraft and parts.....	(X)	131,463	(X)
	All other secondary products.....	(X)	<sup>3</sup> 27,777	(X)
	Miscellaneous receipts.....	(X)	143,409	(X)
AMMUNITION, N.E.C., INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	503,001	(X)
	Primary products.....	355,893	290,272	65,621
19291	Ammunition over 30 mm (or 1.18 inches and over) n.e.c.....	169,222	131,569	<sup>4</sup> 37,653
19292	Receipts for ammunition loading and assembly over 30 mm (or 1.18 inches and over).....			
19293	Ammunition, n.e.c.....			
19290	Ammunition, n.e.c., n.s.k.....	186,671	158,703	<sup>5</sup> 27,968
	Secondary products.....	(X)	123,418	(X)
19990	Ordinance and accessories, n.e.c.....	(X)	2,020	(X)
	All other secondary products.....	(X)	<sup>6</sup> 121,398	(X)
	Miscellaneous receipts.....	(X)	89,311	(X)
	Contract work.....	(X)	61,345	(X)
	Other.....	(X)	27,966	(X)
TANKS AND TANK COMPONENTS INDUSTRY				
	Total shipments and receipts of the industry.....	(X)	394,144	(X)
19310	Tanks and tank components.....	454,396	358,016	<sup>7</sup> 96,380
	Secondary products.....	(X)	<sup>8</sup> 17,746	(X)
	Miscellaneous receipts.....	(X)	18,382	(X)

See footnotes at end of table.



TABLE 5B. **Industry-Product Analysis—Shipments by Product Class and Industry:**  
**1963—Continued**

Prod. class code	Class of products and miscellaneous receipts	All industries	Sighting and fire control equipment (SIC 1941)	Other industries
19410	SIGHTING AND FIRE CONTROL EQUIPMENT INDUSTRY			
	Total shipments and receipts of the industry.....	(X)	156,568	(X)
	Sighting and fire control equipment.....	106,984	85,739	<sup>9</sup> 21,245
	Secondary products.....	(X)	<sup>10</sup> 65,579	(X)
	Miscellaneous receipts.....	(X)	5,250	(X)
19511 19512 19510		All industries	Small arms, 30 mm. and under (SIC 1951)	Other industries
	SMALL ARMS, 30 MM. AND UNDER INDUSTRY			
	Total shipments and receipts of the industry.....	(X)	133,042	(X)
	Primary products.....	148,542	122,227	26,315
	Machine guns, 30 mm and under (or 1.18 inches and under).....	148,542	122,227	<sup>11</sup> 26,315
	Small arms, 30 mm and under (or 1.18 inches and under).....			
	Small arms, 30 mm and under, n.s.k.....			
	Secondary products.....	(X)	<sup>12</sup> 5,882	(X)
	Miscellaneous receipts.....	(X)	4,933	(X)
	Contract work.....	(X)	445	(X)
	Resales.....	(X)	2,412	(X)
	Other.....	(X)	2,076	(X)
	19610		All industries	Small arms ammunition (SIC 1961)
SMALL ARMS AMMUNITION INDUSTRY				
Total shipments and receipts of the industry.....		(X)	192,454	(X)
Small arms ammunition.....		192,399	176,617	<sup>13</sup> 15,782
	Secondary products.....	(X)	<sup>14</sup> 15,837	(X)
	Miscellaneous receipts.....			
19110 19990		All industries	Guns, howitzers, and mortars and ordnance and accessories, n.e.c. (SIC 1911 and 1999)	Other industries
	GUNS, HOWITZERS, AND MORTARS AND ORDNANCE AND ACCESSORIES, N.E.C., INDUSTRIES			
	Total shipments and receipts of the industries.....	(X)	350,975	(X)
	Guns, howitzers, mortars, and related equipment 30 mm (or over 1.18 inches).....	12,444	175,523	<sup>15</sup> 80,417
	Ordnance and accessories, n.e.c.....	243,496		
	Secondary products.....	(X)	<sup>16</sup> 49,195	(X)
	Miscellaneous receipts.....	(X)	126,257	(X)
Contract work.....	(X)	113,860	(X)	
Other miscellaneous receipts.....	(X)	12,397	(X)	

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Includes \$372,326 shipped by industry 3721, Aircraft. In addition, the following industries had shipments of \$2 million or more; however, the exact values are withheld to avoid disclosing individual company figures: 3662, Radio, TV Communications Equipment; 3722, Aircraft Engines and Parts; and, 3729, Aircraft Equipment, N.E.C.

<sup>2</sup>Includes shipments of \$2 million or more by the following industries; however, the exact values are withheld to avoid disclosing individual company figures: 3662, Radio, TV Communications Equipment; 3721, Aircraft; and 3729, Aircraft Equipment, N.E.C.

Footnotes continued on next page.

# TABLE 5B. Industry-Product Analysis—Production by Product Class and Industry: 1963—Continued

Footnotes for Table 5B-19A—Continued

<sup>3</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 27313, Technical, scientific, and professional books; 36624, Electronic navigational aids (except missile-borne and space vehicle basin equipment) and 36628, Missile-borne and space vehicle-borne navigation and guidance systems and equipment.

<sup>4</sup>Includes shipments of \$2 million or more by the following industries; however, the exact values are withheld to avoid disclosing individual company figures: 3461, Metal Stampings; 3545, Machine Tool Accessories; 3621, Motors and Generators; 3661, Telephone; Telegraph Apparatus; and 3871, Watches and Clocks.

<sup>5</sup>Includes \$2 million shipped by industry 3729, Aircraft Equipment, N.E.C. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 1941, Sighting and Fire Control Equipment; 3443, Boiler Shop Products; 3599, Miscellaneous Machinery; and 3636, Sewing Machines.

<sup>6</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 19310, Tanks and tank components; 33991, Metal powders and paste; 34320, Plumbing fixtures and fittings and trim (brass goods); 34434, Gas cylinders; 34612, Job stampings, except automotive; 34615, Stamped and spun hospital utensils and cooking and kitchen household utensils except aluminum; 36621, Radio and TV commercial communication equipment; 37175, Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers; 37221, Aircraft engines for military customers; 37223, Research and development on aircraft engines; 37291, Other aircraft parts and auxiliary equipment; and 37292, Guided missile components and subassemblies, n.e.c.

<sup>7</sup>Includes \$5,029 shipped by industry 3717, Motor Vehicles and Parts. In addition, the following industries had shipments which totaled \$2 million or more but are withheld to avoid disclosing figures for individual companies: 1929, Ammunition, N.E.C.; 3323, Steel Foundries, 3585, Refrigeration Machinery; 3722, Aircraft Engines and Parts; and 3742, Railroad and Street Cars.

<sup>8</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing individual company figures: 37291, Other aircraft parts and auxiliary equipment; and 37292, Guided missile components and subassemblies, n.e.c.

<sup>9</sup>Includes \$12,997 thousand shipped by industry 3662, Radio, TV Communications Equipment. In addition, industry 3585, Refrigeration Machinery, had shipments which totaled \$2 million or more, but is withheld to avoid disclosing figures for individual companies.

<sup>10</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing figures for individual companies: 19293, Ammunition, n.e.c.; 36112, Test equipment for testing electrical, radio, and communication circuits and motors; 36624, Electronic navigational aids; 36628, Missile-borne and space vehicle-borne navigation and guidance systems and equipment; 37291, Other aircraft parts and auxiliary equipment; 37292, Guided missile components and subassemblies, n.e.c.; 38311, Optical instruments and lenses, except sighting and fire-control equipment; and 38410, Surgical and medical instruments and apparatus.

<sup>11</sup>Includes shipments of over \$2 million of the following industries, however, the exact values are withheld to avoid disclosing individual company figures: 3722, Aircraft Engines and Parts; and 3729, Aircraft Equipment, N.E.C.

<sup>12</sup>Includes shipments of over \$2 million of products classified in industry 3717, Motor Vehicles and Parts; however, the exact figures are withheld to avoid disclosing individual company figures.

<sup>13</sup>Includes the following industries which total \$2 million or more but are withheld to avoid disclosing company figures: 1999, Ordnance and Accessories, N.E.C.; 3352, Aluminum Rolling and Drawing; and 3694, Engine Electrical Equipment.

<sup>14</sup>Includes the following product classes which total \$2 million or more but are withheld to avoid disclosing company figures: 19990, Ordnance and accessories, n.e.c., and 34295, Other hardware.

<sup>15</sup>Includes shipments (in thousands of dollars) by the following: \$2,020 by industry 1929, Ammunition, N.E.C.; \$6,134 by industry 3662, Radio, TV Communication Equipment; \$3,562, by industry 3722, Aircraft Engines and Parts; \$7,227 by industry 3729, Aircraft Equipment, N.E.C.; as well as by the following industries, the shipments of which total \$2 million or more but are withheld to avoid disclosing individual company figures: 1961, Small Arms Ammunition; 2522, Metal Office Furniture; 3011, Tires and Inner Tubes; 3433, Heating Equipment, Except Electric; 3443, Boiler Shop Products; 3461, Metal Stampings; 3519, Internal Combustion Engines; 3544, Special Dies and Tools; 3571, Computing and Related Machines; 3599, Miscellaneous Machinery; 3679, Electronic Components, N.E.C.; 3721, Aircraft; and 3861, Photographic Equipment.

<sup>16</sup>Includes the following product classes which total \$2 million or more, but are withheld to avoid disclosing individual company figures: 19610, Small arms ammunition, 30 mm. and under (or 1.18 inches and under); 35111, Steam, gas, and hydraulic turbine generator set units and parts; 35595, Other special industry machinery and equipment; 36122, Power and distribution transformers, except parts; 36131, Switchgear, including power switchgear assemblies, and other switching and interrupting devices 2,300 volts; 36212, Integral horsepower motors and generators, except land transportation; and 36220, General industry power circuit devices and controls.



TABLE 6A. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

Product code	Product	Total shipments including interplant transfers							
		1963		1958					
		Quantity (number of units)	Value (\$1,000)	Quantity (number of units)	Value (\$1,000)				
1911- --	GUNS, HOWITZERS, MORTARS, AND RELATED EQUIPMENT, OVER 30 MM.(OR OVER 1.18 INCHES).....	(X)	112,444	(X)	(2)				
1925- --	GUIDED MISSILES AND SPACE VEHICLES, COMPLETELY ASSEMBLED, TOTAL.....	(X)	33,957,159	(X)	31,886,682				
19251 --	Guided missiles and space vehicles, complete.....	(X)	1,644,181	(X)	900,837				
19251 11	Complete missile systems (excluding propulsion).....	(X)	1,241,792	}	900,837				
	Complete space vehicle systems (excluding propulsion):								
19251 13	For United States Government military customers.....	(X)	52,804						
19251 15	For United States Government nonmilitary customers.....	(X)	349,585						
19253 --	Research and development on guided missiles and space vehicles (complete).	(X)	1,628,268	(X)	4985,845				
19253 11	Research and development on complete missile systems.....	(X)	778,107	(X)	(NA)				
	Research and development on complete space vehicle systems:								
19253 13	For United States Government military customers.....	(X)	205,143	(X)	(NA)				
19253 15	For United States Government nonmilitary customers.....	(X)	645,018	(X)	(NA)				
19255 --	All other services on complete missiles and space vehicles.....	(X)	684,710	(X)	(4)				
19255 11	All other services on complete missiles.....	(X)	593,869	(X)	(NA)				
	All other services on complete space vehicles:								
19255 13	For United States Government military customers.....	(X)	39,921	(X)	(NA)				
19255 15	For United States Government nonmilitary customers.....	(X)	50,092	(X)	(NA)				
19255 23	For nongovernment customers.....	(X)	828	(X)	(NA)				
1929- --	AMMUNITION, N.E.C.....	(X)	355,893	(X)	2133,031				
19291 --	Ammunition over 30 mm.(or 1.18 inches and over), n.e.c.....	}	169,222	(X)	70,736				
19292 --	Receipts for ammunition loading and assembly over 30 mm.(or over 1.18 inches).....			(X)	(2)				
19293 --	Ammunition, n.e.c.....			(X)	62,295				
19290 --	Ammunition, n.e.c., n.s.k.....			(X)	62,295				
1931- --	TANKS AND TANK COMPONENTS.....	(X)	454,396	(X)	210,752				
1941- --	SIGHTING AND FIRE CONTROL EQUIPMENT.....	(X)	106,984	(X)	470,914				
19410 10	As reported in the census of manufactures.....	(X)	106,984	(X)	470,914				
	As reported on Census Annual Form MA-38B.....	(X)	104,380	(X)	(X)				
1951- --	SMALL ARMS, 30 MM. AND UNDER.....	(X)	148,542	(X)	86,037				
19512 32	Pistols and revolvers.....	496,139	19,716	489,340	18,969				
	Rifles:								
19512 52	Center fire, repeating.....	324,420	18,211	224,921	12,495				
19512 54	Rim fire, repeating.....	371,145	9,564	289,540	7,633				
19512 56	Rim fire, single shot.....	179,875	2,354	163,239	1,639				
	Shot guns:								
	Single barrel:								
19512 62	Repeating.....	321,869	17,916	382,945	17,072				
19512 63	Single shot.....	}	7,475	224,277	5,327				
19512 64	Double barrel, including over and under type.....								
	Other small firearms 30 mm. and under including machine guns:								
19511 13	} Shipped under U.S. military contract.....	}	68,760	(X)	21,853				
19512 72									
19511 53	} Shipments under other than U.S. military contracts.....								
19512 75									
19512 81	Parts and attachments for small firearms.....								
19510 00	Small arms 30 mm. and under, n.s.k.....	(X)	4,546	(X)	1,049				
1961- --	SMALL ARMS AMMUNITION, 30 MM. AND UNDER.....	(X)	192,399	(X)	150,651				
19610 12	Shipped under U.S. military contract.....	(X)	82,090	(X)	55,643				
	Shipments other than U.S. military contracts:								
	For small firearms (rifles, shotguns, and sidearms):								
	Cartridges:								
19610 83	Rim fire.....	}	41,501	(X)	92,797				
19610 85	Center fire.....								
19610 87	Shotgun shells.....	(X)	49,734	}	2,211				
19610 89	All other, including for machine gun, air rifle, B-B gun, etc.....	(X)	14,616						
19610 00	Small arms ammunition, n.s.k.....	(X)	4,458	(X)					
1999- --	ORDNANCE AND ACCESSORIES, N.E.C.....	(X)	243,496	(X)	2210,043				

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Although general statistics for industry 1911 have been combined with SIC 1999, the value of products primary to SIC 1911 is shown separately. Most of this value is accounted for by establishments in industries other than 1911.

<sup>2</sup>Value of shipments for 1911 and 19292 included with 1999 for 1958.

<sup>3</sup>Data for industry 1925 represents receipts, billings or value of work done.

<sup>4</sup>In the 1958 Census of Manufactures, a single value figure for research and development and all other services on complete guided missiles and space vehicles was collected. Consequently, separate detailed statistics comparable to 1963 are not available.

**TABLE 6B. Product Classes—Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958**

(Indexes of production and unit value are not shown for this area pending further review of the quantity data and associated values pertaining to these products.)

**TABLE 6C. Product Classes—Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963**

(In thousands of dollars)

Code	Product class	1963	1962 <sup>1</sup>	1961 <sup>1</sup>	1960 <sup>1</sup>	1959 <sup>1</sup>	1958	1954	1947
1925-	Complete guided missiles.....	3,957,159	3,001,894	2,572,064	2,693,118	2,248,000	1,886,682	(NA)	(NA)
19251	Guided missiles, complete.....	1,644,181	1,542,276	1,045,125	1,048,480	995,910	900,837	(NA)	(NA)
19253	Research and development on guided missiles (complete).....	1,628,268	1,459,618	1,526,939	1,644,638	1,252,090	985,845	(NA)	(NA)
19255	All other services on complete space vehicles.....	684,710							
1951 -	Small arms, 30 mm. and under.....	148,542	180,623	138,608	104,679	(S)	86,037	56,449	54,932
19610	Small arms ammunition.....	192,399	163,906	152,008	130,350	159,069	150,651	(NA)	(NA)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.



TABLE 7A. Materials by Kind: 1963 and 1958

Code	Material	Unit of measure	1963		1958			
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)		
			INDUSTRY 1925.--COMPLETE GUIDED MISSILES					
	Materials, parts, containers, and supplies, total.....	1,000.....	(X)	946,198	(X)	979,754		
	Mill shapes and forms (except castings):							
	Carbon steel:							
331011	Bars and bar shapes.....	Short tons.....	2,215	708	3,035	1,762		
331013	Plates.....	..do.....	2,117	501	2,755	699		
331015	Structural shapes.....	..do.....	1,168	323	2,115	534		
331012	Sheet and strip.....	..do.....	2,793	764	1,884	679		
331017	Wire and wire products.....	..do.....			2,220	1,609		
331019	All other carbon steel mill shapes and forms.....	..do.....						
	Alloy steel:							
331021	Bars and bar shapes.....	..do.....	166	126	1,645	1,449		
331029	All other alloy steel mill shapes and forms.....	..do.....	125	246	1,214	762		
331031	Stainless steel.....	..do.....	526	1,272	1,704	4,123		
	Copper and copper-base alloy:							
335728	Bare wire for electrical conduction.....	1,000 lbs.....	1,385	3,884	2,422	6,002		
335790	Insulated wire and cable.....	1,000 lbs. copper content.						
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	38	40	1,071	742		
335123	Plate, sheet, and strip, including military cups and discs.....	..do.....	(D)	(D)				
335127	Pipe and tube.....	..do.....	(D)	(D)				
	Aluminum and aluminum-base alloy:							
335202	Sheet, plate, and foil.....	..do.....	5,880	5,116	12,090	8,260		
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc....	..do.....	6,162	6,825	4,102	3,995		
335209	All other aluminum mill shapes and forms (wire, rolled, rod, bar, powder, welded tubing, etc.).....	..do.....						
	Castings (rough and semifinished): <sup>1</sup>							
332300	Steel.....	Short tons.....	63	191	118	185		
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	2,063	2,550	1,170	2,782		
336200	Copper and copper-base alloy.....	.....	(D)	(D)	(NA)	(NA)		
	Forgings <sup>1</sup> :							
339100	Iron and steel.....	Short tons.....	298	867	(NA)	(NA)		
339200	Aluminum and aluminum-base alloy.....	1,000 lbs.....	1,966	2,870	(NA)	(NA)		
333401	Aluminum and aluminum-base alloy refinery shapes.....	.....	(D)	(D)	(NA)	(NA)		
	Electric motors and generators <sup>1</sup> :							
362110	Fractional horsepower electric motors (under 1 hp):							
	Timing motors, synchronous and subsynchronous.....	1,000.....	1	203	10	183		
362115	Other fractional horsepower motors.....	.....	(D)	(D)	(NA)	(NA)		
362120	Integral hp. motors and generators.....	.....	(D)	(D)	(NA)	(NA)		
	Bearings:							
356218	Ball.....	.....	}	(X)	(X)	1,311		
356228	Roller.....	.....						
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	915,677	(X)	786,877		
976000	Materials, parts and supplies, n.s.k.....	.....	(X)	2,995	(X)	157,800		
	Material	Unit of measure	1963					
					Quantity	Delivered cost (\$1,000)		
			INDUSTRY 1929.--AMMUNITION, N.E.C.					
	Materials, parts, containers, and supplies, total.....	.....			(X)	180,295		
	Mill shapes and forms (except castings):							
	Carbon steel:							
331011	Bars and bar shapes.....	Short tons.....	}		44,453	6,467		
331012	Sheet and strip.....	..do.....			33,053	5,496		
331013	Plates.....	..do.....			38,194	6,259		
331015	Structural shapes.....	..do.....						
331017	Wire and wire products.....	..do.....						
331019	All other carbon steel mill shapes and forms.....	..do.....			14,299	12,413		
	Alloy steel (except stainless):							
331021	Bars and bar shapes.....	..do.....						
331029	All other alloy steel mill shapes and forms.....	..do.....						
331031	Stainless steel.....	..do.....						

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963	
			Quantity	Delivered cost (\$1,000)
INDUSTRY 1929.—AMMUNITION, N.E.C.—Continued				
Mill shapes and forms (except castings)--Continued				
335728	Copper and copper-base alloy:			
335790	Bare wire, (for electrical conduction).....	1,000 lbs.....	107	73
	Insulated wire and cable.....	1,000 lbs. (copper content)		
335102	Rod, bar, and mechanical wire including extruded and/or drawn shapes.....	1,000 lbs.....	1,102	707
335123	Plate, sheet, and strip, including military cups and discs.....	..do.....	5,570	2,533
335127	Pipe and tube.....	..do.....		
Aluminum and aluminum-base alloy:				
335202	Sheet, plate, and foil.....	..do.....	3,311	1,694
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc.....	..do.....	10,806	5,354
335209	All other aluminum mill shapes and forms (wire, rolled rod, bar, powder, welded tubing, etc.).....	..do.....	32,233	19,775
Scrap:				
333401	Aluminum and aluminum -base alloy refinery shapes.....	.....	(D)	(D)
999811	Iron and steel.....	.....	(D)	(D)
999808	Aluminum and aluminum-base alloy.....	.....	(D)	(D)
Castings (rough and semifinished): <sup>1</sup>				
332011	Iron (gray and malleable).....	Short tons.....	4,612	989
332300	Steel.....	..do.....	1,188	740
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	517	518
336200	Copper and copper-base alloy.....	.....	(D)	(D)
Forgings:				
339100	Iron and steel forgings.....	Short tons.....	1,230	652
339200	Aluminum and aluminum-base alloy forgings.....	.....	(D)	(D)
Fractional horsepower electric motors (under 1 hp.):				
362110	Timing motors, synchronous and subsynchronous.....	.....	(D)	(D)
362115	Other fractional horsepower electric motors and generators, excluding timing motors.....	.....	(D)	(D)
Bearings:				
356218	Ball.....	.....	(X)	54
356228	Rollers.....	.....		
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	112,010
976000	Materials, parts, containers and supplies, n.s.k.....	.....	(X)	4,561
INDUSTRY 1951.--TANKS AND TANK COMPONENTS				
Materials, parts, containers, and supplies, total.....			(X)	255,930
Mill shapes and forms (except castings):				
Carbon steel:				
331011	Bars and bar shapes.....	Short tons.....	7,690	3,796
331012	Sheet and strip.....	..do.....		
331013	Plates.....	..do.....		
331017	Wire and wire products.....	..do.....		
331019	All other carbon steel mill shapes and forms.....	..do.....		
Alloy steel (except stainless):				
331021	Bars and bar shapes.....	..do.....	33,467	20,925
331029	All other alloy steel mill shapes and forms.....	..do.....		
331031	Stainless steel.....	..do.....	240	392
Copper and copper-base alloy:				
335790	Insulated wire and cable.....	.....	(D)	(D)
335102	Rod, bar, and mechanical wire including extruded and/or drawn shapes.....	.....	(D)	(D)
335127	Pipe and tube.....	.....	(D)	(D)
Aluminum and aluminum-base alloy:				
335202	Sheet plate and foil.....	.....	(D)	(D)
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc.....	.....	(D)	(D)
335209	All other aluminum mill shapes and forms (wire, rolled rod, bar, powder, welded tubing, etc.).....	.....	(D)	(D)
Castings (rough and semifinished): <sup>1</sup>				
332011	Iron (gray and malleable).....	.....	(D)	(D)
332300	Steel.....	Short tons.....	31,794	29,502
336100	Aluminum and aluminum-base alloy.....	.....	(D)	(D)
Forgings:				
339100	Iron and steel.....	Short tons.....	9,271	5,123
339200	Aluminum and aluminum-base alloy.....	.....	(D)	(D)
Fractional horsepower electric motors and generators (under 1 hp.):				
362115	Other fractional horsepower electric motors and generators, excluding timing motors.....	.....	(D)	(D)
Bearings:				
356218	Ball.....	.....	(X)	1,255
356228	Roller.....	.....		
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	181,316
976000	Materials, parts, containers and supplies, n.s.k.....	.....	(X)	13,621

See footnotes at end of table.



TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 1951.--SMALL ARMS, 30 MM. AND UNDER			
	Materials, parts, containers and supplies, total.....		(X)	39,661	(X)	18,070
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	8,406	1,885	6,072	1,466
331012	Sheet and strip.....	..do.....	4,906	1,781	485	14
331013	Plates.....	..do.....			60	17
331017	Wire and wire products.....	..do.....		424	-	-
331019	All other carbon steel mill shapes and forms.....	..do.....	354		129	431
	Alloy steel (except stainless):					
331021	Bar and bar shapes.....	..do.....			712	637
331029	All other alloy steel mill shapes and forms.....	..do.....	5,535	2,004	20	16
331031	Stainless steel.....	..do.....			-	-
	Copper and copper-base alloy:					
335128	Bare wire (for electrical conduction only).....	1,000 lbs.....	-	-		
335790	Insulated wire and cable.....	1,000 lbs. (copper content).....	-	-		
335102	Ron, bar, and mechanical wire including extruded and/or drawn shapes.....	1,000 lbs.....	(D)	(D)	66	20
335123	Plate, sheet, and strip (including military cups and discs.....	..do.....	-	-		
335237	Pipe and tube.....	..do.....	-	-		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	..do.....			-	-
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc...	..do.....				
335209	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, and welded tubing, etc.).....	..do.....	(NA)	142	199	234
	Castings (rough and semifinished): <sup>1</sup>					
332011	Iron (gray and malleable).....	Short tons.....	1,562	790	305	186
332300	Steel.....	..do.....	(D)	(D)	-	-
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	559	279	2	10
	Forgings: <sup>1</sup>					
339100	Iron and steel.....	Short tons.....	1,790	1,943	196	219
339200	Aluminum and aluminum-base alloy.....	..do.....	(D)	(D)	-	-
	Bearings:					
356218	Ball.....	..do.....	(X)	(D)	(X)	
356228	Roller.....	..do.....	(X)	(D)	(X)	14
970099	All other materials and components, parts, containers, and supplies consumed.....	..do.....	(X)	26,066	-	14,331
976000	Materials, parts, and supplies, n.s.k.....	..do.....	(X)	24,347	-	349
			INDUSTRY 1961.--SMALL ARMS AMMUNITION			
	Materials, parts, containers and supplies, total.....		(X)	79,734	(X)	69,026
	Mill shapes and forms (except castings):					
	Carbon steel:					
331017	Wire and wire products.....	Short tons.....			1,711	305
331012	Sheet and strip.....	..do.....				
331013	Plates.....	..do.....			3,553	843
331011	Bar and bar shapes.....	..do.....				
331019	All other carbon steel mill shapes and forms.....	..do.....	4,083	2,415		
	Alloy steel (except stainless):					
331021	Bar and bar shapes.....	..do.....			-	-
331029	All other alloy steel mill shapes and forms.....	..do.....			-	-
331031	Stainless steel.....	..do.....			-	-
	Copper and copper-base alloy:					
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes.....	1,000 lbs.....	(D)	(D)	34,946	18,611
335123	Plate, sheet, and strip, including military cups and discs.....	..do.....	(D)	(D)		
335127	Pipe and tube.....	..do.....	-	-		
	Bearings:					
356218	Ball.....	..do.....	(D)	(D)	(X)	(NA)
356228	Roller.....	..do.....	(D)	(D)	(X)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed.....	..do.....	(X)	76,036	-	49,075
976000	Materials, parts, containers and supplies, n.s.k.....	..do.....	(X)	1,283	-	192

See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958—Continued

Code	Material	Unit of measure	1963		1958 <sup>3</sup>	
			Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
			INDUSTRY 1911 AND 1999.—GUNS, HOWITZERS, AND MORTARS, AND ORDNANCE AND ACCESSORIES, N.E.C.			
	Materials, parts, containers and supplies, total.....		(X)	102,977	(X)	924,251
	Mill shapes and forms (except castings):					
	Carbon steel:					
331011	Bars and bar shapes.....	Short tons.....	2,643	489	45,293	7,209
331012	Sheet and strip.....	..do.....	16,302	2,200	3,299	686
331013	Plates.....	..do.....	6,552	1,375	12,078	2,272
331015	Structural shapes.....	..do.....			485	103
331017	Wire and wire products.....	..do.....			333	103
331019	All other carbon steel mill shapes and forms.....	..do.....			3,257	1,054
	Alloy steel (except stainless):					
331021	Bars and bar shapes.....	..do.....	975	1,289	5,209	1,861
331029	All other alloy steel mill shapes and forms.....	..do.....			14,946	8,045
331031	Stainless steel.....	..do.....			1,934	4,856
	Copper and copper-base alloy:					
335728	Bare wire for electrical conduction.....	1,000 lbs.....	(D)	(D)	35	31
335790	Insulated wire and cable, copper content only.....	1,000 lbs. (copper content)	(D)	(D)	2,428	1,813
335102	Rod, bar, and mechanical wire including extruded and/or drawn shapes.....	1,000 lbs.....	(D)	(D)	4,355	2,276
335123	Plate sheet, and strip (including military cups and discs).....	..do.....	(D)	(D)		
335127	Pipe and tube.....	..do.....	-	-		
	Aluminum and aluminum-base alloy:					
335202	Sheet, plate and foil.....	1,000 lbs.....	1,333	863	10,313	5,418
335205	Extruded shapes including extruded rod, bar, pipe, tube, etc....	..do.....	1,940	1,087	5,920	4,273
335209	All other aluminum mill shapes and forms (wire, rolled rod, bar, powder, welded tubing, etc.).....	..do.....				
999811	Iron and steel purchased scrap.....	Short tons.....	-	-	1,411	58
	Castings (rough and semifinished): <sup>1</sup>					
332011	Iron(gray and malleable).....	Short tons.....	(D)	(D)	6,467	1,440
332300	Steel.....	..do.....	(D)	(D)	4,437	3,255
336100	Aluminum and aluminum-base alloy.....	1,000 lbs.....	1,063	636	2,646	2,140
336200	Copper and copper-base alloy.....	..do.....	(D)	(D)	63	39
	Forgings: <sup>1</sup>					
339100	Iron and steel forgings.....	Short tons.....	654	1,249	6,025	3,735
339200	Aluminum and aluminum-base alloy forgings.....	1,000 lbs.....	(D)	(D)	-	-
351901	Gasoline and other carburetor engines <sup>1</sup> .....		-	-	(NA)	5,170
	Fractional horsepower electric motor and generators (under 1 hp.): <sup>1</sup>					
362110	Timing motors, synchronous and subsynchronous.....	Thousands.....	-	-	52	2,525
362115	Other fractional horsepower electric motors and generators excluding timing motors.....	..do.....	(D)	(D)	26	1,964
	Bearings:					
356218	Ball.....		(X)	(D)	(X)	1,960
356228	Roller.....		(X)	(D)	(X)	
335604	Magnesium and magnesium-base alloys, except powder.....	Short tons.....	-	-	1,049	1,136
970099	All other materials and components, parts, containers and supplies consumed.....		(X)	92,131	(X)	840,717
976000	Materials, parts and supplies, n.s.k.....		(X)	1,658	(X)	20,112

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup> Does not include materials produced and consumed at the same establishment.

<sup>2</sup> Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

<sup>3</sup> Includes data for the following industries: 1911, 1929, 1931, 1951, and 1999.



**TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962**

Item	Ordnance and accessories (SIC Major Group 19)
Total cost of purchased fuels and electric energy.....	\$1,000.. 25,939
Total cost of purchased fuels.....	do... 10,257
Bituminous coal, lignite, and anthracite:	
Quantity.....	1,000 short tons.. 298
Cost.....	\$1,000.. 2,179
Coke and breeze:	
Quantity.....	1,000 short tons.. -
Cost.....	\$1,000.. -
Fuel oil (distillate and residual):	
Quantity.....	1,000 barrels of 42 gallons.. 794
Cost.....	\$1,000.. 2,294
Gas (natural, manufactured, still, blast furnace, and coke oven):	
Quantity.....	million cu.ft.. 9,044
Cost.....	\$1,000.. 4,048
Other fuels.....	do... 1,736
Electric energy:	
Purchased:	
Quantity.....	million kw.-hrs.. 1,480
Cost.....	\$1,000.. 15,682
Generated less sold.....	million kw.-hrs.. 178
Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.....	1,000 hp.. 1,117
Prime movers, total.....	do... 235
Driving generators.....	do... 155
Not driving generators.....	do... 80
Electric motors, total.....	do... 1,013
Driven by purchased energy.....	do... 882
Driven by energy generated at establishment.....	do... 131
Aggregate horsepower per 100 production workers.....	995

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

**TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963**

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization—the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization—the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for

the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

Industry or product class code	Industry or product class by percent of specialization	Establishments (number)	All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Capital expenditures, new (\$1,000)
			Total (number)	Payroll (\$1,000)	Total (number)	Man-hours (1,000)	Wages (\$1,000)				
1925-	COMPLETE GUIDED MISSILES										
	Entire industry.....	31	148,908	1,325,803	54,527	110,358	395,184	1,924,812	1,129,051	23,053,863	48,849
	Establishments with--										
	90% or more specialization..	20	94,826	876,172	31,878	65,038	236,982	1,287,032	848,958	2,135,990	36,985
19253	Research and development on guided missiles (complete) (primary product class of estab.).....	12	92,260	853,227	26,464	53,521	202,463	1,176,093	733,035	1,909,128	29,686
1929-	AMMUNITION, N.E.C.										
	Entire industry.....	44	32,578	202,208	25,059	48,966	137,662	285,774	210,170	503,001	7,619
	Establishments with--										
	90% or more specialization..	20	15,407	87,576	12,777	25,133	69,980	121,645	59,972	186,170	1,734
19291	Ammunition over 30 mm.(or 1.18 inches and over) n.e.c. (primary product class of estab.).....	15	7,132	41,660	5,337	10,551	27,346	60,439	59,717	122,136	807
	Establishments with--										
	90% or more specialization....	5	1,287	6,529	1,105	2,176	5,698	9,296	10,466	20,358	120
19293	Ammunition, n.e.c. (primary product class of estab.).....	12	14,810	105,269	10,894	20,712	66,411	157,925	125,031	287,127	3,482
1951-	SMALL ARMS, 30 MM.AND UNDER										
	Entire industry.....	52	9,995	57,347	7,497	15,085	39,288	88,302	42,965	133,042	5,123
	Establishments with--										
	90% or more specialization..	46	8,694	51,516	6,627	13,294	35,963	80,954	35,857	118,421	5,027
1911- and 1999-	GUNS, HOWITZERS, AND MORTARS, AND ORDNANCE AND ACCESSORIES, N.E.C.										
	Entire industry.....	60	24,988	176,169	15,149	30,701	93,697	235,211	115,363	350,975	12,269
	Establishments with--										
	90% or more specialization..	33	4,860	32,905	2,773	6,014	16,193	37,793	40,175	79,438	6,019
	75-89% specialization.....	5	483	2,911	413	806	2,275	4,411	3,980	7,927	(D)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>See footnote 2, table 1.

<sup>2</sup>Represents value of work done.



TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
INDUSTRY 1925.—COMPLETE GUIDED MISSILES								
Ferrous foundry.....	1	-	1	-	(D)	-	(D)	-
Nonferrous foundry (except die casting).....	3	1	2	-	21	(D)	(D)	-
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	4	2	2	-	(D)	(D)	(D)	-
Electroplating and other plating.....	17	5	7	5	273	12	86	175
Galvanizing and other hot dip coating.....	6	3	1	2	176	6	(D)	(D)
Heat treating of metals.....	12	4	5	3	146	7	50	89
Automatic screw machine department.....	4	-	4	-	37	-	37	-
Machine shop.....	21	1	6	14	3,341	(D)	(D)	3,262
Tool and die shop.....	16	2	2	12	3,601	(D)	(D)	3,574
Foundry pattern shop.....	4	1	1	2	73	(D)	(D)	(D)
Plate or structural fabrication.....	9	1	3	5	2,311	(D)	(D)	2,276
Stamping, blanking and forming of metals.....	13	1	4	8	535	(D)	(D)	491
Painting, lacquering and enameling on metals.....	17	6	2	9	399	(D)	(D)	380
Plastics molding.....	10	3	-	7	807	8	-	799
Assembly of product.....	17	2	1	14	11,045	(D)	(D)	11,030
Shipping department, including packing and crating..	17	2	6	9	692	(D)	(D)	635
INDUSTRY 1929.—AMMUNITION, N.E.C.								
Ferrous foundry.....	2	-	2	-	(D)	-	(D)	-
Nonferrous die casting.....	1	-	-	1	(D)	-	-	(D)
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	6	-	3	3	171	-	47	124
Electroplating and other plating.....	9	3	4	2	134	7	(D)	(D)
Heat treating of metals.....	12	2	9	1	151	(D)	(D)	(D)
Automatic screw machine department.....	5	-	-	5	282	-	-	282
Machine shop.....	23	4	2	17	1,730	(D)	(D)	1,697
Tool and die shop.....	15	2	4	9	593	(D)	(D)	549
Foundry pattern shop.....	1	1	-	-	(D)	(D)	-	-
Plate or structural fabrication.....	6	2	2	2	210	(D)	(D)	(D)
Stamping, blanking and forming of metals.....	14	5	2	7	753	(D)	(D)	726
Painting, lacquering and enameling on metals.....	18	7	7	4	221	16	58	147
INDUSTRY 1931.—TANKS AND TANK COMPONENTS								
Electroplating and other plating.....	2	-	2	-	(D)	-	(D)	-
Galvanizing and other hot dip coating.....	1	-	1	-	(D)	-	(D)	-
Heat treating of metals.....	5	2	3	-	48	(D)	(D)	-
Machine shop.....	18	3	2	13	2,053	(D)	(D)	2,026
Tool and die shop.....	8	-	5	3	277	-	41	236
Plate or structural fabrication.....	6	-	-	6	1,049	-	-	1,049
Stamping, blanking and forming of metals.....	3	-	1	2	(D)	-	(D)	(D)
Painting, lacquering and enameling on metals.....	13	7	3	3	236	14	23	199
INDUSTRY 1951.—SMALL ARMS, 30 MM. AND UNDER								
Nonferrous die casting.....	2	2	-	-	(D)	(D)	-	-
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	4	3	1	-	10	(D)	(D)	-
Electroplating and other plating.....	5	2	2	1	62	(D)	(D)	(D)
Galvanizing and other hot dip coating.....	2	1	1	-	(D)	(D)	(D)	-
Heat treating of metals.....	12	5	6	1	118	12	(D)	(D)
Automatic screw machine department.....	10	5	2	3	148	(D)	(D)	127
Machine shop.....	22	6	9	7	873	10	83	780
Tool and die shop.....	16	6	5	5	326	7	47	272
Plate or structural fabrication.....	1	-	-	1	(D)	-	-	(D)
Stamping, blanking and forming of metals.....	14	7	4	3	248	10	29	209
Painting, lacquering and enameling on metals.....	8	6	2	-	21	(D)	(D)	-
INDUSTRY 1961.—SMALL ARMS AMMUNITION								
Electroplating and other plating.....	3	2	1	-	13	(D)	(D)	-
Heat treating of metals.....	4	1	2	1	54	(D)	(D)	(D)
Automatic screw machine department.....	3	-	1	2	53	-	(D)	(D)
Machine shop.....	9	2	2	5	229	(D)	(D)	205
Tool and die shop.....	7	2	2	3	144	(D)	(D)	126
Foundry pattern shop.....	1	1	-	-	(D)	(D)	-	-
Stamping, blanking and forming of metals.....	10	2	3	5	578	(D)	(D)	538
Painting, lacquering and enameling on metals.....	1	1	-	-	(D)	(D)	-	-

See footnotes at end of table.

TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963—Continued

Metalworking operations	Number of establishments				Employment in the specified operation			
	Total	Number of production workers <sup>1</sup>			Total	Number of production workers <sup>1</sup>		
		1 to 4	5 to 19	20 or more		1 to 4	5 to 19	20 or more
	INDUSTRIES 1911 AND 1999.—GUNS, HOWITZERS AND MORTARS AND ORDNANCE AND ACCESSORIES, N.E.C.							
Nonferrous foundry (except die casting).....	1	1	-	-	(D)	(D)	-	-
Nonferrous die casting.....	2	1	1	-	(D)	(D)	(D)	-
Forging—presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.).....	3	2	-	1	(D)	(D)	-	20
Electroplating and other plating.....	9	4	5	-	38	6	32	-
Galvanizing and other hot dip coating.....	2	1	1	-	(D)	(D)	(D)	-
Heat treating of metals.....	11	6	4	1	59	12	(D)	(D)
Automatic screw machine department.....	5	3	1	1	(D)	(D)	(D)	(D)
Machine shop.....	28	3	9	16	2,040	6	84	1,950
Tool and die shop.....	14	4	6	4	205	8	49	148
Foundry pattern shop.....	1	1	-	-	(D)	(D)	-	-
Plate or structural fabrication.....	9	4	1	4	428	(D)	(D)	405
Stamping, blanking and forming of metals.....	16	8	4	4	441	18	40	383
Painting, lacquering and enameling on metals.....	17	11	5	1	106	20	(D)	(D)

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below.

Item	Industry					
	1925	1929	1931	1951	1961	1911 and 1999
Total number of establishments in the industry.....	31	44	26	52	31	60
Number of establishments which reported one or more of the specified operations.....	23	28	18	25	10	30
Percent of industry production workers in these establishments.....	90-95	75-80	95-100	95-100	95-100	50-55
Number of establishments which reported "none" of the operations apply.....	7	4	-	-	2	5
Percent of industry production workers in these establishments.....	1-5	0-5	-	0-5	0-5	0-5
Percent of industry production workers in establishments which completed metalworking operations inquiry.....	95-100	75-80	95-100	95-100	95-100	50-55

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>The size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.





# Manufacturing Activity In Government Establishments

Special Report

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## MANUFACTURING ACTIVITY IN GOVERNMENT ESTABLISHMENTS

This special report presents data of manufacturing activities for selected government establishments within the United States. These data are not included in other 1963 Census of Manufactures reports, which cover privately operated establishments only. Manufacturing establishments owned by the Federal Government and operated by private companies either for the government or for their own account are included with privately operated establishments. Three types of establishments are covered in this report: (1) Manufacturing facilities owned and operated by the Department of Defense; (2) prison industries (Federal, District of Columbia, and State); and (3) manufacturing facilities owned and operated by other U.S. Government agencies. The data were prepared with the cooperation of the Department of Defense, the Department of Justice, the Department of Interior, and the District of Columbia and State prison systems.

### MANUFACTURING FACILITIES OWNED BY THE U.S. GOVERNMENT AND OPERATED BY THE DEPARTMENT OF DEFENSE

Data are shown in tables 1 to 3 for manufacturing facilities owned by the U.S. Government and operated by the Department of Defense. Although these establishments may also be engaged in nonmanufacturing activities at the same location, the statistics represent only their activities relating to manufacturing. All manufacturing installations which produce goods or perform manufacturing services, such as industrial research and development, are covered in this report. Data resulting from the conversion and modification of ships and aircraft by the Army and Navy, but not the Air Force, are also included. Manufacturing activities of the U.S. Air Force are not included because its accounting system is different from that used in the Industrial Fund of the Department of Defense and thus the Air Force concluded it could not provide data comparable to the other respondents (Army and Navy). Also, the report does not include activities of Defense Department installations which serve primarily or exclusively their own installations (e.g., bakeries and some machine shops). All printing and publishing activities are excluded because almost every large government installation engages in these activities to some degree, thus making coverage difficult.

There are approximately twice as many plants reporting in this survey as in the comparable 1958 survey. This increase is primarily because of the additions of research and development activities and manufacturing divisions of supply depots. As a result of this increase, there are two types of tables. The first type shows 1963 data for all Defense Department plants within the scope of this survey. The second shows 1963 data for only those plants that reported in 1958 and their comparable 1958 data.

In all tables, statistics are shown for employment, man-hours, payrolls, costs, and billings. Military personnel are not included in any of the employment, payroll, or man-hours data. The data represent only nonmilitary (wage board and graded) employees engaged in manufacturing activities at the plant. The cost and billings data for 1963 are based on the Industrial Fund accounting system of the Department of Defense. The Industrial Fund concepts of "Total Billings" and "Total Earned Revenue," which were used for the 1963 data, differ because the latter is the result of increasing or decreasing "Total Billings" to reflect the change in unbilled costs of work in progress.

The 1963 value added by manufacture data, shown in table 1, represent total earned revenue (including the value of manufacturing services) less the cost of materials, parts, and supplies actually consumed or put into production during the year.

## PRISON INDUSTRIES (FEDERAL, DISTRICT OF COLUMBIA, AND STATE)

During 1963, manufactured products valued at \$112,702 thousand were produced in Federal, District of Columbia, and State prisons in the United States. The comparable 1958 figure of \$97,307 thousand also includes the value of products produced for use within the institutions as well as for products transferred to other governmental agencies or for sale in the open market. These data, shown in detail in table 4, cover the activities of the Federal Prison Industries, Inc., as well as those of the prison industries of each State and the District of Columbia.

## MANUFACTURING FACILITIES OWNED AND OPERATED BY OTHER U.S. GOVERNMENT AGENCIES

Manufacturing operations of the Bureau of Mines, U.S. Department of Interior, are not included in the tables of this report. That agency is the primary producer of refined helium in the United States. During 1963, it operated five plants from which 627 million cubic feet of helium valued at \$21,945 thousand were shipped. The average number of employees totaled 639, of which 479 were production and related workers, and the total wages and salaries paid amounted to \$4,195 thousand. Comparable figures for other years as well as additional detail for production, shipments, consumption, prices, reserves, and activities relating to conservation and technology appear in the Minerals Yearbook, a publication of the Bureau of Mines.

Excluded from this report are the manufacturing activities of the Government Printing Office, the National Aeronautics and Space Administration, and the Tennessee Valley Authority. The operations of these agencies are covered in their annual reports. Also excluded are the minor manufacturing activities of such other government agencies as the Post Office Department and the General Services Administration.



TABLE 1. Department of Defense

Item	All employees (wage board and graded)		Production workers (wage board)			Costs (\$1,000)	
	Number	Payroll (\$1,000)	Number	Man-hours (1,000)	Wages (\$1,000)	Materials, supplies, and parts used	Contractual services and other costs
GEOGRAPHIC AREA							
United States, total.....	230,646	1,691,651	155,300	1,284,054	1,096,785	587,976	315,017
New England division.....	26,594	184,642	20,152	36,729	137,484	65,286	38,956
New Hampshire.....	8,825	61,396	6,950	12,628	48,418	21,078	5,519
Massachusetts.....	13,743	94,669	10,472	18,979	71,082	34,816	26,076
Rhode Island.....	3,193	21,921	2,504	4,707	16,405	5,575	7,361
Connecticut.....	833	6,656	226	415	1,579	3,817	-
Middle Atlantic division.....	49,190	353,850	32,068	57,851	219,217	124,306	58,689
New York.....	16,177	115,724	12,345	22,196	90,153	49,674	7,200
New Jersey.....	7,140	56,740	2,874	5,192	18,029	16,931	19,409
Pennsylvania.....	25,873	181,386	16,849	30,463	111,035	57,701	32,080
East North Central division.....	13,633	99,994	9,189	17,307	67,532	51,137	10,661
Indiana.....	5,534	41,556	3,500	6,824	26,417	15,005	3,814
Illinois.....	8,099	58,438	5,689	10,483	41,115	36,132	6,847
West North Central division.....	27	171	15	26	79	5	32
Iowa.....	27	171	15	26	79	5	32
South Atlantic division.....	59,744	439,216	37,958	69,196	263,612	133,082	104,748
Maryland.....	18,726	142,542	7,408	13,156	49,544	52,530	46,788
District of Columbia.....	4,799	40,991	1,218	2,144	7,893	10,775	30,026
Virginia.....	19,113	137,586	15,307	28,067	109,601	39,476	15,075
North Carolina.....	1,734	12,068	1,538	2,837	10,568	2,208	2,278
South Carolina.....	7,167	49,144	5,569	10,113	38,661	14,969	4,009
Georgia.....	939	5,558	687	1,274	3,876	3,507	301
Florida.....	7,266	51,327	6,231	11,600	43,469	9,617	6,271
East South Central division.....	10,999	92,745	3,597	6,503	26,513	19,818	16,548
Kentucky.....	2,624	19,772	1,895	3,436	14,837	9,962	1,782
Alabama.....	8,375	72,973	1,702	3,067	11,676	9,856	14,766
West South Central division.....	3,816	21,601	2,983	5,297	16,082	13,196	3,158
Arkansas.....	1,333	8,003	800	1,352	4,258	5,892	2,170
Oklahoma.....	1,008	5,478	783	1,438	4,122	494	988
Texas.....	1,475	8,120	1,400	2,507	7,702	6,810	-
Mountain division.....	3,877	26,660	2,120	3,851	14,258	20,463	20,029
Colorado.....	849	5,971	583	1,124	4,045	14,544	7,097
New Mexico.....	442	3,990	24	40	158	658	7,678
Utah.....	2,586	16,699	1,513	2,687	10,055	5,261	5,254
Pacific division.....	62,766	472,772	47,218	87,294	352,008	160,683	62,196
Washington.....	10,055	72,879	7,887	14,449	55,401	34,175	6,121
California.....	47,886	363,037	35,440	65,799	267,543	113,737	53,883
Hawaii.....	4,825	36,856	3,891	7,046	29,064	12,771	2,192
SIC CODES AND MAJOR ACTIVITY							
All manufacturing facilities, total.....	230,646	1,691,651	155,300	284,054	1,096,785	587,976	315,017
23 Apparel and related products.....	1,809	8,305	1,689	2,785	7,520	1,404	723
281 Basic chemicals.....	5,836	40,441	2,365	4,038	14,440	21,557	19,968
289 Miscellaneous chemical products.....	2,704	18,531	1,796	3,327	12,158	27,371	3,270
353 Construction and like equipment.....	300	1,867	255	451	1,607	154	200
366 Communication equipment.....	10,697	82,393	4,488	9,706	28,016	31,191	27,787
372 Aircraft and parts.....	34,471	246,883	28,644	53,226	202,616	46,420	45,822
373 Ship and boat building.....	94,687	691,574	76,294	138,616	560,645	253,367	45,337
382 Mechanical measuring devices.....	27	171	15	26	79	5	32
19 Ordnance and accessories.....	66,154	495,656	35,559	64,592	243,587	174,545	121,342
192 Missiles and ammunition, n.e.c.....	36,657	282,829	17,478	32,370	119,702	94,282	68,493
-- Research and development.....	13,961	105,830	4,195	7,287	26,117	31,962	50,536

Note: Includes manufacturing facilities, research and development activities, and manufacturing performed in supply depots. Not comparable to data shown in the 1958 Census publication "Manufacturing Activity in Government Establishments, MC58(S)-1."

- Represents zero.

## Facilities: 1963

Item	Value of shipments or receipts for service by type of activity (\$1,000)						Value added by manufacture  (\$1,000)
	Manufacture and assembly	Construction and conversion	Research and development	Other receipts	Total billings	Total revenues	
	GEOGRAPHIC AREA						
United States, total.....	433,140	597,321	634,193	877,151	2,541,805	2,641,227	2,053,251
New England division.....	68,665	128,927	37,849	49,088	284,529	292,564	227,278
New Hampshire.....	598	70,895	1,012	7,240	79,745	90,501	69,423
Massachusetts.....	67,039	39,775	13,700	40,372	160,886	155,450	120,634
Rhode Island.....	1,028	18,257	11,568	1,476	32,329	35,044	29,469
Connecticut.....	-	-	11,569	-	11,569	11,569	7,752
Middle Atlantic division.....	119,240	153,105	144,178	144,092	560,615	547,217	422,911
New York.....	27,411	90,410	19,196	41,367	178,384	179,753	130,079
New Jersey.....	33,720	605	42,861	26,432	103,618	93,150	76,219
Pennsylvania.....	58,109	62,090	82,121	76,293	278,613	274,314	216,613
East North Central division.....	103,383	1,167	11,442	45,275	161,267	164,696	113,559
Indiana.....	30,749	-	8,129	18,834	57,712	61,261	46,256
Illinois.....	72,634	1,167	3,313	26,441	103,555	103,435	67,303
West North Central division.....	100	-	-	108	208	208	203
Iowa.....	100	-	-	108	208	208	203
South Atlantic division.....	69,618	28,122	261,648	289,827	649,215	688,420	555,338
Maryland.....	51,418	-	151,237	44,165	246,820	244,157	191,627
District of Columbia.....	-	-	80,628	2,838	83,466	81,918	71,143
Virginia.....	6,804	12,832	21,467	121,455	162,558	195,255	155,779
North Carolina.....	435	-	384	15,226	16,045	17,141	14,933
South Carolina.....	235	15,290	1,971	48,108	65,604	70,619	55,650
Georgia.....	7,184	-	285	429	7,898	9,212	5,705
Florida.....	3,542	-	5,676	57,606	66,824	70,118	60,501
East South Central division.....	19,016	-	36,051	82,616	137,683	129,616	109,798
Kentucky.....	19,016	-	600	11,452	31,068	31,550	21,588
Alabama.....	-	-	35,451	71,164	106,615	98,066	88,210
West South Central division.....	19,192	4,007	68	16,246	39,513	38,248	25,052
Arkansas.....	14,804	-	60	2,759	17,623	16,358	10,466
Oklahoma.....	2,618	-	8	4,334	6,960	6,960	6,466
Texas.....	1,770	4,007	-	9,153	14,930	14,930	8,120
Mountain division.....	22,475	-	22,600	23,316	68,391	67,386	46,923
Colorado.....	20,120	-	-	9,876	29,996	27,740	13,196
New Mexico.....	-	-	12,326	-	12,326	12,326	11,668
Utah.....	2,355	-	10,274	13,440	26,069	27,320	22,059
Pacific division.....	11,451	281,993	120,357	226,583	640,384	712,872	552,189
Washington.....	2,867	77,331	2,526	21,852	104,576	117,044	82,869
California.....	8,548	199,976	117,831	168,429	494,784	543,037	429,300
Hawaii.....	36	4,686	-	36,302	41,024	52,791	40,020
SIC CODES AND MAJOR ACTIVITY							
All manufacturing facilities, total	433,140	597,321	634,193	877,151	2,541,805	2,641,227	2,053,251
23 Apparel and related products.....	10,908	-	-	109	11,017	10,624	9,220
281 Basic chemicals.....	34,956	-	26,927	21,042	82,925	80,835	59,278
289 Miscellaneous chemical products.....	37,570	-	4,266	6,408	48,244	49,831	22,460
353 Construction and like equipment.....	-	-	-	2,221	2,221	2,221	2,067
366 Communication equipment.....	40,587	605	78,111	34,070	153,373	142,905	111,714
372 Aircraft and parts.....	12,985	64,540	62,948	185,520	325,993	342,270	295,850
373 Ship and boat building.....	7,318	525,451	18,019	352,900	903,688	1,021,847	768,480
382 Mechanical measuring devices.....	100	-	-	108	208	208	203
19 Ordnance and accessories.....	288,716	6,725	260,533	264,555	820,529	798,043	623,498
192 Missiles and ammunition, n.e.c.....	94,145	4,007	184,910	164,136	447,198	447,063	352,781
-- Research and development.....	-	-	183,389	10,218	193,607	192,443	160,481



TABLE 2. Department of Defense Facilities,

Geographic area	1963						
	All employees (wage board and graded)		Production workers (wage board)			Costs (\$1,000)	
	Number	Payroll (\$1,000)	Number	Man-hours (1,000)	Wages (\$1,000)	Materials, supplies, and parts used	Contractual services and other costs
United States, total.....	149,334	1,089,220	105,037	190,125	746,464	419,899	149,543
New England division.....	22,568	156,065	17,422	31,607	119,500	55,894	31,595
New Hampshire.....	8,825	61,396	6,950	12,628	48,418	21,078	5,519
Massachusetts.....	13,743	94,669	10,472	18,979	71,082	34,816	26,076
Middle Atlantic division.....	40,427	296,052	27,583	49,335	192,693	106,135	41,424
New York.....	14,744	108,884	11,689	21,226	86,720	47,981	7,200
New Jersey.....	7,140	56,740	2,874	5,192	18,029	16,931	19,409
Pennsylvania.....	18,543	130,428	13,020	22,917	87,944	41,223	14,815
East North Central division.....	10,388	73,413	7,181	13,312	50,577	36,586	7,863
Indiana.....	2,589	16,842	1,747	3,280	11,069	608	1,216
Illinois.....	7,799	56,571	5,434	10,032	39,508	35,978	6,647
South Atlantic division.....	26,670	189,911	19,007	34,496	134,820	82,862	25,496
Maryland.....	6,658	46,998	3,068	5,485	20,235	34,117	17,440
District of Columbia.....	-	-	-	-	-	-	-
Virginia.....	11,906	88,211	9,683	17,624	72,048	30,269	3,746
South Carolina.....	7,167	49,144	5,569	10,113	38,661	14,969	4,009
Georgia.....	939	5,558	687	1,274	3,876	3,507	301
Florida.....	-	-	-	-	-	-	-
East South Central division.....	10,299	88,497	3,172	5,767	23,923	19,223	15,848
Kentucky.....	1,924	15,524	1,470	2,700	12,247	9,367	1,082
Alabama.....	8,375	72,973	1,702	3,067	11,676	9,856	14,766
West South Central division.....	2,341	13,481	1,583	2,790	8,380	6,386	3,158
Arkansas.....	1,333	8,003	800	1,352	4,258	5,892	2,170
Oklahoma.....	1,008	5,478	783	1,438	4,122	494	988
Mountain division.....	549	3,971	293	528	2,105	8,919	3,628
Colorado.....	549	3,971	293	528	2,105	8,919	3,628
Nevada.....	-	-	-	-	-	-	-
Pacific division.....	36,092	267,830	28,796	52,290	214,466	103,894	20,531
Washington.....	10,055	72,879	7,887	14,449	55,401	34,175	6,121
California.....	26,037	194,951	20,909	37,841	159,065	69,719	14,410

Note: Research and development activities, and manufacturing performed in supply depots are excluded, making 1963 data comparable to 1958.

- Represents zero.

TABLE 3. Department of Defense Facilities,

Major activity	1963								
	All employees (wage board and graded)		Production workers (wage board)			Costs (\$1,000)		Value of shipments or receipts for service by type of activity (\$1,000)	
	Number	Payroll (\$1,000)	Number	Man-hours (1,000)	Wages (\$1,000)	Materials, supplies, and parts used	Contractual services and other costs	Manufacture and assembly	Construction and conversion
All manufacturing facilities, total.....	149,334	1,089,220	105,037	190,125	746,464	419,899	149,543	370,249	524,088
23 Apparel and related products.....	1,809	8,305	1,689	2,785	7,520	1,404	723	10,908	-
281 Basic chemicals.....	5,836	40,441	2,365	4,038	14,440	21,557	19,968	34,956	-
289 Miscellaneous chemical products.....	2,704	18,531	1,796	3,327	12,158	27,371	3,270	37,570	-
366 Communication equipment.....	7,140	56,740	2,874	5,192	18,029	16,931	19,409	33,720	605
373 Ship and boat building.....	84,862	654,718	72,403	131,570	531,581	240,596	43,145	7,282	520,765
384 Personal safety devices.....	-	-	-	-	-	-	-	-	-
19 Ordnance and accessories.....	41,983	310,485	23,910	43,213	162,736	112,040	63,028	245,813	2,718
192 Missiles and ammunition, n.e.c.....	18,361	143,574	8,660	15,939	59,074	41,973	24,054	63,095	-

Note: Research and development activities, and manufacturing performed in supply depots are excluded, making 1963 data comparable to 1958.

- Represents zero.

## by Geographic Areas: 1963 and 1958

Geographic area	1963--Continued						1958	
	Value of shipments or receipts for service by type of activity (\$1,000)						All employees (wage board and graded)	
	Manufacture and assembly	Construction and conversion	Research and development	Other receipts	Total billings	Total revenues	Number	Payroll (\$1,000)
United States, total.....	370,249	524,088	172,716	552,878	1,619,931	1,693,663	125,440	717,130
New England division.....	67,637	110,670	14,712	47,612	240,631	245,951	20,025	113,295
New Hampshire.....	598	70,895	1,012	7,240	79,745	90,501	7,390	41,486
Massachusetts.....	67,039	39,775	13,700	40,372	160,886	155,450	12,635	71,809
Middle Atlantic division.....	114,341	153,105	78,034	121,581	467,061	453,663	31,252	171,285
New York.....	27,411	90,410	14,310	37,399	169,530	170,899	15,040	87,009
New Jersey.....	33,720	605	42,861	26,432	103,618	93,150	1,915	10,595
Pennsylvania.....	53,210	62,090	20,863	57,750	193,913	189,614	14,297	73,681
East North Central division.....	79,516	1,167	4,667	34,650	120,000	119,880	4,219	23,607
Indiana.....	6,882	-	1,354	10,430	18,666	18,666	185	895
Illinois.....	72,634	1,167	3,313	24,220	101,334	101,214	4,034	22,712
South Atlantic division.....	52,792	28,122	34,300	144,951	260,165	302,191	26,555	143,624
Maryland.....	41,920	-	31,133	21,591	94,644	97,662	1,263	6,824
District of Columbia.....	-	-	-	-	-	-	5,266	29,002
Virginia.....	3,453	12,832	911	74,823	92,015	124,698	11,880	65,361
South Carolina.....	235	15,290	1,971	48,108	65,604	70,619	7,075	37,146
Georgia.....	7,184	-	285	429	7,898	9,212	702	3,338
Florida.....	-	-	-	-	-	-	369	1,953
East South Central division.....	18,473	-	36,051	77,616	132,140	124,073	7,192	52,047
Kentucky.....	18,473	-	600	6,452	25,525	26,007	1,737	9,890
Alabama.....	-	-	35,451	71,164	106,615	98,066	5,455	42,157
West South Central division.....	17,422	-	68	7,093	24,583	23,318	844	3,978
Arkansas.....	14,804	-	60	2,759	17,623	16,358	191	1,023
Oklahoma.....	2,618	-	8	4,334	6,960	6,960	653	2,955
Mountain division.....	15,802	-	-	3,100	18,902	16,646	1,251	6,500
Colorado.....	15,802	-	-	3,100	18,902	16,646	78	449
Nevada.....	-	-	-	-	-	-	1,173	6,051
Pacific division.....	4,266	231,024	4,884	116,275	356,449	407,941	34,102	202,794
Washington.....	2,867	77,331	2,526	21,852	104,576	117,044	10,942	63,373
California.....	1,399	153,693	2,358	94,423	251,873	290,897	22,160	139,421

## by Type of Activity: 1963 and 1958

Major activity		1963--Continued			1958					
		Value of shipments or receipts for service by type of activity--Continued (\$1,000)			All employees (wage board and graded)		Production workers (wage board)			Value added by manufacture (\$1,000)
		Other receipts	Total billings	Total revenues	Number	Payroll (\$1,000)	Number	Man-hours (1,000)	Wages (\$1,000)	
All manufacturing facilities, total.		552,878	1,619,931	1,693,663	125,440	717,130	93,871	173,833	531,587	799,239
23	Apparel and related products.....	109	11,017	10,624	2,513	9,515	2,212	4,308	7,937	10,501
281	Basic chemicals.....	21,042	82,925	80,835	269	1,472	222	440	1,249	1,655
289	Miscellaneous chemical products.....	6,408	48,244	49,831	1,160	6,188	789	1,394	3,980	7,500
366	Communication equipment.....	26,432	103,618	93,150	1,915	10,595	1,435	2,508	7,940	18,657
373	Ship and boat building.....	316,598	862,664	969,056	91,083	522,649	73,174	135,278	420,944	571,127
384	Personal safety devices.....	-	-	-	103	636	86	165	526	699
19	Ordnance and accessories.....	182,289	511,463	490,167	28,397	166,075	15,953	29,740	89,011	189,100
192	Missiles and ammunition, n.e.c.....	110,658	213,893	210,134	9,605	65,096	4,649	8,759	26,602	69,087



TABLE 4. Federal, District of Columbia, and State Prisons: 1963 and 1958

Product <sup>1</sup>	Unit of measure	Total shipments, including interplant transfers			
		1963		1958	
		Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
Total.....	.....	(X)	112,702	(X)	97,307
Meat products.....	.....	(X)	5,696	(X)	5,893
Canned foods.....	.....	(X)	4,725	(X)	4,608
Prepared animal feeds.....	.....	(X)	2,588	(X)	1,129
Coffee and tea.....	.....	(X)	795	(X)	1,171
Chewing and smoking tobacco.....	.....	(X)	1,273	(X)	1,067
Blankets.....	.....	(X)	2,275	(X)	1,506
Woven fabrics.....	1,000 lbs....	13,266	8,465	14,682	11,277
Cordage and twine.....	do.....	13,812	1,862	15,334	2,707
Apparel and related products.....	.....	(X)	14,966	(X)	12,364
Sheets and pillow cases.....	.....	(X)	1,754	(X)	948
Canvas specialties.....	.....	(X)	3,735	(X)	4,309
Mattresses.....	.....	(X)	2,696	(X)	3,369
Wooden furniture.....	.....	(X)	7,182	(X)	5,364
Printing and binding.....	.....	(X)	3,324	(X)	2,317
Soaps.....	.....	(X)	2,370	(X)	2,068
Paints.....	.....	(X)	3,325	(X)	2,006
Shoes.....	1,000 prs....	1,143	6,327	1,030	5,674
Clay and concrete brick.....	1,000.....	15,915	212		264
Concrete block.....	.....	(X)	418	(X)	
Motor vehicle license plates.....	1,000.....	97,796	11,481	94,004	10,899
Miscellaneous metal products.....	.....	(X)	10,157	(X)	6,532
Brooms and brushes.....	.....	(X)	4,859	(X)	4,178
Highway and road signs.....	1,000.....	1,659	6,931	1,340	3,693
Miscellaneous products.....	.....	(X)	5,286	(X)	23,964

Note: Excludes agricultural products, road building, and other nonmanufacturing activities.

(X) Not applicable.

<sup>1</sup>The products listed are classified within the Standard Industrial Classification System as follows:

SIC code	Product	SIC code	Product	SIC code	Product
201	Meat products	230	Apparel and related products	314	Shoes
203	Canned foods	239	Sheets and pillowcases	325	Clay and concrete brick
204	Prepared animal feeds	239	Canvas specialties	327	Concrete block
209	Coffee and tea	251	Mattresses	346	Motor vehicle license plates
213	Chewing and smoking tobacco	253	Wooden furniture	349	Miscellaneous metal products
221	Blankets	275	Printing and binding	398	Brooms and brushes
223	Woven fabrics	284	Soaps	399	Highway and road signs
229	Cordage and twine	285	Paints	900	Miscellaneous products

<sup>2</sup>Includes the following values reported separately in 1958, but for which separate data are not available in 1963: Dairy products, 202, \$1,807 thousand; flour, 204, \$276 thousand; miscellaneous textile products, 229, \$270 thousand; castings, 330, \$300 thousand; and farm equipment, 352, \$913 thousand.

## Appendixes





# Appendix A

## COMPARABILITY OF CENSUSES OF MANUFACTURES IN TERMS OF THE VALUE ADDED MEASURE

It is doubtful whether any census could be kept fully comparable with one taken for an earlier period. Even if all systems of classification, such as the SIC, and definitions were identical and if the same procedures were employed in compiling the statistics, the changes in the structure of industry would introduce elements of noncomparableness. For example, a shift to the use of commercial services instead of the manufacturers' own labor force in performing some functions would affect the comparability of operating ratios such as output per man-hour associated with an industry.

The changes in definitions and procedures introduced in a census are described in the introductory text of the census volumes and historical data are revised where practical. (See Introductory text, Section 5.) Nevertheless, over long periods of time the comparableness of series will be significantly affected and the problems of revising historical data become difficult.

One way of displaying the problems connected with comparing the statistics from two censuses is to review the history of a single concept. For this example, value added by manufactures has been chosen. Currently, it is looked upon as the "best" additive measure of manufacturing activity provided by the census of manufactures. It is widely relied upon for comparative statistics by industry and by geographic location.

The phrase, "value added to materials by manufacturing processes," first appeared as a column heading in the census for 1904, where it was proposed as a measure suitable for comparing industries and areas. Earlier censuses had provided information on value of product and varying amounts of information on costs of materials, the two sets of figures which census analysts use to compute value added (table A). In connection with the census for 1869, costs of materials were subtracted from value of product for each industry but the difference, which was labeled "excess of product over materials," was used primarily to indicate variation among industries classified by the ratio of materials to employees and by the manner in which products were valued for census purposes.

This appendix was prepared by Frank H. Hanna, professor of economics, Duke University.

During the 19th century, interest centered chiefly in obtaining an aggregate which would reflect the growth of the American economy. In 1889, the subtraction of costs of materials from value of product was labeled, "net value of products." It was later criticized as a "statistical absurdity" unsuitable for measuring the growth of manufactures since the net value of products was made to appear less than the cost of materials. The census for 1899 proposed as a measure of growth the sum of "(1) the value of all raw materials which have entered this output; and (2) the entire value added to these raw materials by manufacturing processes," and, (3) the value of the partially fabricated materials imported "since their value is counted nowhere else."

The concern with the appropriate basis for the measurement of growth, and the desire to include within the measure all activities not explicitly included elsewhere, probably had its roots in the sparsity of available data. The census of manufactures was almost the only source of information on output and apparently there was a desire to make it as comprehensive as possible. It purported to cover output wherever it occurred—in factories, in the hand trades, in stores, and even in homes if the output was commercial—though the censuses for 1869 and later disclaimed an ability to obtain reliable statistics from the hand trades.

The census for 1899 devoted 77 pages of text to the emergence of a "factory system" and to formation of 185 "industrial combinations" or "trusts," consisting of 2,040 plants in 12 industrial groups and 36 States. All but eight of the "combinations" had been formed between 1890 and 1899. After 1899, the census was confined to the "factory system." Its frequency increased and emphasis shifted to the organization and structure of manufactures.

The formulation of net value of products as the sum of raw materials and value added had required that data be collected separately for raw materials and for fabricated materials and, as is shown in table A, data were obtained on many other expenses. The problem of allocating net value of products among industries and areas was discussed extensively in the census for 1899 but a satisfactory solution was not found. "Value added" was adopted, almost reluctantly, for this purpose in the census for 1904, but only the cost of materials consumed directly was subtracted from value of products to arrive at the value added used for that year. Materials consumed by the manufacturing process (e.g., mill supplies, fuels, etc.), but not embodied in the product, were not subtracted even though information on their magnitude was available in the census.



Table A.--Approaches to Value Added, Selected Census Years 1869 to 1958

[In millions of dollars. The entries are from the original reports for the years shown. Estimates adjusted for changes in the scope of manufactures are shown in table 1, General Summary. The exclusion of the hand trades and neighborhood operations from the 1899 census reduced the value added shown in this table by 44 percent; the adjustments for 1809 and later censuses were about 4 percent.]

Item <sup>1</sup>	1869	1899	1904	1909	1919	1939	1947	1958
1 Value of product <sup>2</sup> .....	4,376	13,004	14,802	20,672	62,418	56,843	191,004	314,748
2 Cost of materials <sup>3</sup> .....	*2,503	-	-	*11,497	*35,730	*30,255	*113,246	*168,424
3 Raw.....	-	2,389	*3,141	-	-	-	-	-
4 Partly manufactured.....	-	*4,634	*4,918	-	-	-	-	-
5 Mill supplies.....	( <sup>4</sup> )	-	63	( <sup>4</sup> )	( <sup>4</sup> )	-	-	-
6 Freight, materials.....	-	( <sup>5</sup> )	57	*76	( <sup>6</sup> )	-	-	-
7 Fuels.....	( <sup>4</sup> )	322	308	*570	*1,646	*850	*2,377	*2,830
8 Electricity.....	-	-	-	-	-	*465	*955	*2,224
9 Rent: power and heat.....	-	-	17	( <sup>5</sup> )	( <sup>5</sup> )	-	-	-
10 Contract work.....	-	171	145	179	464	*589	*( <sup>7</sup> )	*( <sup>7</sup> )
11 Rent: factory and works.....	-	96	73	107	212	-	-	<sup>8</sup> 1,411
12 Taxes paid.....	-	-	-	-	2,079	-	-	-
13 Federal excise.....	-	( <sup>9</sup> )	( <sup>9</sup> )	263	( <sup>10</sup> )	-	( <sup>7</sup> )	( <sup>7</sup> )
14 State and local.....	-	47	59	88	( <sup>10</sup> )	-	-	<sup>8</sup> 1,450
15 Other expenses <sup>11</sup> .....	-	714	1,178	1,309	-	-	-	-
Ordinary repairs:								
16 Wages and salaries of plant.....	-	-	-	-	-	-	-	<sup>8</sup> 4,539
17 Purchased services.....	-	-	-	-	-	-	-	<sup>8</sup> 4,472
Supplements to wages and salaries:								
18 Social security.....	-	-	-	-	-	-	-	<sup>8</sup> 1,335
19 Workmen's compensation.....	-	-	-	-	-	-	-	<sup>8</sup> 501
20 Unemployment compensation...	-	-	-	-	-	-	-	<sup>8</sup> 762
21 Pensions and other.....	-	-	-	-	-	-	-	<sup>8</sup> 3,376
22 Insurance.....	-	-	-	-	-	-	-	<sup>8</sup> 667
23 Depreciation.....	-	-	-	-	-	-	-	<sup>8</sup> 7,295
24 Cost of goods resold.....	-	-	-	-	-	-	( <sup>12</sup> )	*( <sup>12</sup> )
25 Value added by manufacture <sup>13</sup> ..	1,873	8,371	6,743	8,529	25,042	24,683	74,426	141,270

\*Subtracted from value of product in computing value added by manufacture.

- Represents zero.

<sup>1</sup>Includes only items named in a request for separate information.

<sup>2</sup>For 1947, value of shipments; for 1958, value of shipments and miscellaneous receipts, sales of goods bought and resold without further manufacture, and changes in inventories of work in process and finished goods.

<sup>3</sup>Includes all materials consumed in the manufacture of products plus an increasingly comprehensive list of supplies consumed currently in the operation of the plant.

<sup>4</sup>Specifically mentioned as included in item 2, but not shown separately.

<sup>5</sup>Obtained separately but combined with item 7 for publication.

<sup>6</sup>Information requested but no mention of it was found in publication.

<sup>7</sup>Excluded from value of product and, thus, from value added. Data on excise taxes were obtained for 1947 and published as a memorandum item in the tables for industry, but have not been requested since 1947.

<sup>8</sup>Data were obtained in a sample survey conducted in connection with the census for 1958 and relate to 1957.

<sup>9</sup>Specifically mentioned as included in item 15.

<sup>10</sup>Items 13 and 14 were combined and requested as item 12.

<sup>11</sup>The instructions for 1899 and 1904 requested the inclusion of the following expenses: Federal excise taxes, rent of office and buildings, interest paid, insurance premiums paid, advertising, ordinary repairs of buildings and machinery, all other sundries. The instructions for 1909 modified this list by requesting the separate reporting of Federal excise taxes, dropping interest paid, and adding traveling expenses, royalties, use of patents.

<sup>12</sup>Published only for individual industries; total not shown for all industries.

<sup>13</sup>For 1869, labeled, "excess of value over materials;" for 1899, labeled, "net value of product."

The chief concern of those first deciding upon the appropriate definition of value added was to circumvent the problem discussed in most censuses under the heading, "Duplication in cost of materials and value of products." To them, it *must* have seemed undesirable to subtract from value of products anything not essential to reduce "duplication" to manageable proportions. The considerations which went into the decisions to subtract additional costs from value of products are incompletely recorded, but there is no doubt that such decisions were taken. By 1909, mill supplies and fuels, including rented heat and power, were subtracted. To this list were added purchased electricity in 1929, and the cost of contract work, partially in 1935, and fully in 1939. Beginning with the 1947 Census of Manufactures, Federal excise taxes were excluded from value of shipments and thus from value added by manufacture. In a special table in the 1954 Census of Manufactures (Volume I, General Summary, table 2B), the concept of adjusted value added was introduced. Value added by resales was added to standard value added by manufacture and the total further adjusted by the change in finished products and work-in-process inventories. During the 1955 to 1959 Annual Surveys of Manufactures, both adjusted and unadjusted value added were calculated for each industry. Since the 1958 census, only adjusted value added has been used.

While there was an increase in the range of costs subtracted from value of product in arriving at value added since 1869, there was also a curtailment of the *detailed information* obtained on costs. Why some items were dropped is not known precisely but *perhaps* the following information is relevant. The census reports contain testimony that difficulty had been experienced in collecting data on costs or expenses and that respondents had

complained about the burden of providing such information. The reports also contain statements, with increasing emphasis, that *profits* could not be calculated from published figures; such statements also appear in the reports for 1899 and 1904, the years when maximum detail was requested. There may have been more effort by the Census Bureau to obtain data essential to a "key" measure, such as value added, than there was for data to be presented only as supplementary information. Too, the introduction, in 1921, of the biennial census of manufactures, coupled with uncertain and fluctuating appropriations, may have led to the adoption of a policy to concentrate on a minimum number of key measures. The appropriations for the census for 1933, for example, were too small even to cover the key measures.

It is not clear whether the inclusion of fuels and electricity in the value to be subtracted from value of product was simply to reduce "duplication" within the manufacturing sector or is evidence of a growing awareness of the contribution of other sectors to the value of manufactured product, a contribution that must be subtracted to arrive at value added by *manufacture*. During the opening decades of this century, coke and manufactured gas had a larger share of the fuels market and much of the electricity consumed by manufactures was produced in manufacturing plants. On the other hand, a continuous attempt was made from the early censuses to exclude transportation costs from the value of products and value added, by requesting that products be valued f.o.b. the plant and that materials costs include the cost of transporting them to the plant. Item 6, table A, was provided as "correction" to costs of materials which were reported exclusive of delivery costs.





## Appendix B

### INDUSTRY DESCRIPTIONS

This appendix is included in Volume I, Summary and Subject Statistics, and in Volume III, Area Statistics, but has been omitted from this volume. The appendix shows the industry descriptions and the primary product coverage and specialization ratios for each industry. Similar but more extensive information of this type is contained elsewhere in this volume: Industry descriptions are shown in the text preceding the tables for each industry, and the ratios in table 5A for each industry.





## Appendix C

### COMPOSITION OF INDUSTRIES IN THE 1963 STANDARD INDUSTRIAL CLASSIFICATION

The 1963 and 1958 Censuses of Manufactures covered all establishments primarily engaged in manufacture as defined in the revised edition of the **Standard Industrial Classification Manual** (SIC), issued by the Bureau of the Budget. For 1958, the published census statistics were for the manufacturing industries as defined in the 1957 edition of the SIC Manual. For 1963, statistics are for the manufacturing industries as defined in an amended version of the 1957 edition.

The 1957 revised edition of the classification represented a considerable revision from the previously existing structure. Several appendixes in the published volumes of the 1958 Census of Manufactures dealt with the contents of that revision as it affected the manufacturing sector. (See 1958 Appendix A, "Notes on Comparability of 1954 and 1958 Data for Selected Industries and Industry Groups;" Appendix B, "Industry Descriptions;" and Appendix C, "Composition of Industries in the New SIC.") Several appendixes to the 1963 Census of Manufactures volumes, including this appendix, likewise make reference to the relatively minor revisions of the SIC following the issuance of the 1957 revised edition.

Presented in two parts, this appendix traces, in part 1, the industries as defined for 1963 in terms of their 1958 counterparts and, in part 2, the industries as defined for 1958 in terms of their 1963 equivalents. Where no change in code or definition occurred, the short industry title and 4-digit code apply to both census years. Most of the industries fall into this category. Where change occurred, the title for a line showing only a 1958 code is a 1958 title and that for a line showing only a 1963 code, a 1963 title. In these instances of change in the SIC (a new industry

broken out of an existing industry, existing industries combined into one, or products shifted between existing industries) the relationship between the two periods is clarified by the manner of presentation. For example, in part 2, in the columns under "Industry code," the 1958 SIC industry 2025, "Special Dairy Products," is shown as part of 1963 industry 2022, "Natural and Process Cheese." This situation, that is, being part of an industry in the other year, is notated by an asterisk (\*). Part 2 also indicates that 1958 industry 2022, "Natural Cheese," is likewise a part of 1963 industry 2022. Part 1 shows that, for 1963, industry 2022 encompasses 1958 industries 2022 and 2025. Thus, to determine comparability between the years, parts 1 and 2 of this appendix should be studied together. In both parts, 1963 data shown are for the following items: Number of establishments (total and those with 20 employees or more); employment; and value added by manufacture.

The manner of coding products and classifying establishments in the 1963 Census of Manufactures (utilizing only 1963 SIC codes) did not, in general, permit a tabulation of 1963 data in terms of 1958 industry definitions. Thus, in part 2 it was not possible to show the data for that part of 1963 industry 2022 which is equivalent to 1958 industry 2025. However, where the change in industry definition between the two years was such as to subdivide an old SIC industry into two new industries, the 1963 data for the former industry can be derived by summing the figures for the component parts; e.g., the 1958 industry 2649, "Paper and Board Products, N.E.C.," consists of the 1963 industries 2647 and 2649, and totals for 2647 and 2649 are added together in part 2 to show their 1958 SIC industry equivalent.

Manufacturing industry codes used by the Bureau of the Census are identical to the SIC industry codes, with a single exception: SIC industries 3711 (Motor Vehicles), 3712 (Passenger Car Bodies), and 3714 (Motor Vehicle Parts and Accessories) are combined by Census into a single industry, number 3717, entitled "Motor Vehicles and Parts."



# Composition of Industries in the 1963 SIC

## Part 1. Derivation of 1963 SIC Industries from 1958 SIC Industries

Industry code		Industry title	Establishments		All employees (number)	Value added by manufacture (\$1,000)
1963 SIC	1958 SIC		Total (number)	With 20 employees or more (number)		
2011	2011	Meat slaughtering plants.....	2,992	976	180,873	1,908,309
2013	2013	Meat processing plants.....	1,341	483	48,599	563,362
2015	2015	Poultry dressing plants.....	967	559	70,104	410,909
2021	2021	Creamery butter.....	766	178	11,992	132,665
2022	----	Natural and process cheese.....	1,138	206	17,956	179,750
	2022	Natural cheese.....	1,138	206	17,956	179,750
	2025	Special dairy products.....				
2023	2023	Condensed and evaporated milk.....	281	166	12,255	236,250
2024	2024	Ice cream and frozen desserts.....	1,081	387	29,143	433,006
2026	2026	Fluid milk.....	4,619	1,948	185,050	2,203,196
2031	2031	Canned and cured seafoods.....	405	196	17,271	174,634
2032	2032	Canned specialties.....	173	77	25,156	540,835
2033	2033	Canned fruits and vegetables.....	1,430	836	102,388	1,029,467
2034	2034	Dehydrated foods products.....	176	80	9,152	115,795
2035	2035	Pickles, sauces, salad dressings.....	588	184	19,041	249,397
2036	2036	Fresh or frozen packaged fish.....	547	255	20,066	118,451
2037	2037	Frozen fruits and vegetables.....	650	346	51,750	550,231
2041	2041	Flour mills.....	618	218	22,405	373,090
2042	2042	Prepared animal feeds.....	2,590	711	54,649	983,691
2043	2043	Cereal preparations.....	48	30	11,358	365,022
2044	2044	Rice milling.....	74	49	4,256	80,507
2045	2045	Blended and prepared flour.....	165	60	7,199	177,826
2046	2046	Wet corn milling.....	60	20	13,236	290,918
2051	2051	Bread and related products.....	5,010	1,904	236,984	2,403,782
2052	2052	Biscuit, crackers and cookies.....	356	208	43,160	627,040
2061	2061	Raw cane sugar.....	74	73	8,263	135,686
2062	2062	Cane sugar refining.....	25	25	12,443	254,418
2063	2063	Beet sugar.....	65	62	11,297	200,698
2071	2071	Confectionery products.....	1,211	411	63,643	635,393
2072	2072	Chocolate and cocoa products.....	28	23	8,743	184,796
2073	2073	Chewing gum.....	24	17	5,558	135,848
2082	2082	Malt liquors.....	222	180	62,643	1,286,036
2083	2083	Malt.....	42	31	1,925	43,979
2084	2084	Wines and brandy.....	222	70	6,111	137,281
2085	2085	Distilled liquor, except brandy.....	107	89	18,009	623,736
2086	2086	Bottled and canned soft drinks.....	3,905	1,530	106,850	1,233,629
2087	2087	Flavorings.....	520	97	9,083	400,173
2091	2091	Cottonseed oil mills.....	188	153	8,372	100,815
2092	2092	Soybean oil mills.....	102	71	6,478	152,143
2093	2093	Vegetable oil mills, n.e.c.....	47	22	1,952	42,692
2094	----	Animal and marine fats and oils.....	615	211	14,276	193,326
	2094	Grease and tallow.....	615	211	14,276	193,326
	2095	Animal oils, n.e.c.....				
2095	----	Roasted coffee.....	324	133	17,175	616,407
	2099*	Food preparations, n.e.c.....	324	133	17,175	616,407
2096	2096	Shortening and cooking oils.....	115	86	13,511	264,501
2097	2097	Manufactured ice.....	1,199	135	10,757	90,204
2098	2098	Macaroni and spaghetti.....	221	70	7,270	96,012
2099	----	Food preparations, n.e.c.....	2,190	547	54,277	849,610
	2099*	Food preparations, n.e.c.....	2,190	547	54,277	849,610
2111	2111	Cigarettes.....	14	14	35,568	1,310,325
2121	2121	Cigars.....	193	82	20,731	192,998
2131	2131	Chewing and smoking tobacco.....	51	25	4,058	73,975
2141	2141	Tobacco stemming and redrying.....	136	110	16,973	103,296
2211	2211	Weaving mills, cotton.....	407	350	208,993	1,256,753
2221	2221	Weaving mills, synthetics.....	355	300	88,157	661,535
2231	2231	Weaving, finishing mills, wool.....	361	249	47,429	386,622
2241	2241	Narrow fabric mills.....	384	215	23,154	172,493

\*Represents part of the specified industry. (NA) Not available.

# Composition of Industries in the 1963 SIC--Continued

## Part 1. Derivation of 1963 SIC Industries from 1958 SIC Industries--Continued

Industry code		Industry title	Establishments		All employees (number)	Value added by manufacture (\$1,000)
1963 SIC	1958 SIC		Total (number)	With 20 employees or more (number)		
2251	----	Women's hosiery, except socks.....	409	266	50,869	292,644
	2251	Full-fashioned hosiery mills.....				
	2252*	Seamless hosiery mills.....	409	266	50,869	292,644
2252	----	Hosiery, n.e.c.....	530	340	43,998	195,867
	2252*	Seamless hosiery mills.....	530	340	43,998	195,867
2253	2253	Knit outerwear mills.....	1,185	666	68,570	463,585
2254	2254	Knit underwear mills.....	118	104	28,364	170,709
2256	2256	Knit fabric mills.....	518	243	25,046	252,908
2259	2259	Knitting mills, n.e.c.....	88	45	3,639	20,309
2261	2261	Finishing plants, cotton.....	238	140	42,055	332,290
2262	2262	Finishing plants, synthetic.....	205	138	19,528	176,819
2269	2269	Finishing plants, n.e.c.....	178	85	9,236	73,159
2271	2271	Woven carpets and rugs.....	64	31	13,357	120,004
2272	2272	Tufted carpets and rugs.....	181	121	19,854	259,343
2279	2279	Carpets and rugs, n.e.c.....	104	35	2,445	15,595
2281	2281	Yarn mills, except wool.....	317	284	61,647	363,177
2282	2282	Throwing and winding mills.....	180	110	13,559	93,649
2283	2283	Wool yarn mills.....	144	121	17,385	119,718
2284	2284	Thread mills.....	71	36	10,056	75,821
2291	2291	Felt goods, n.e.c.....	36	30	4,952	58,625
2292	2292	Lace goods.....	152	51	4,912	31,472
2293	2293	Padding and upholstery filling.....	183	73	6,932	65,588
2294	2294	Processed textile waste.....	141	59	4,240	30,961
2295	2295	Coated fabric, not rubberized.....	161	86	13,475	177,307
2296	2296	Tire cord and fabric.....	20	19	9,163	72,267
2297	2297	Scouring and combing plants.....	69	38	5,798	45,402
2298	2298	Cordage and twine.....	167	76	8,920	57,614
2299	2299	Textile goods, n.e.c.....	137	56	7,283	78,746
2311	2311	Men's and boys' suits and coats.....	1,112	635	122,679	831,910
2321	2321	Men's dress shirts and nightwear.....	834	566	113,193	601,620
2322	2322	Men's and boys' underwear.....	80	63	12,084	63,186
2323	2323	Men's and boys' neckwear.....	341	117	8,385	58,136
2327	2327	Separate trousers.....	735	423	73,848	383,134
2328	2328	Work clothing.....	439	353	62,477	330,653
2329	2329	Men's and boys' clothing, n.e.c.....	554	365	35,917	183,224
2331	2331	Women's blouses.....	1,175	718	57,595	300,525
2335	2335	Women's dresses.....	4,752	3,013	200,003	1,180,883
2337	2337	Women's suits, coats and skirts.....	2,516	1,380	88,332	637,869
2339	2339	Women's outerwear, n.e.c.....	1,297	709	59,536	340,462
2341	2341	Women's and children's underwear.....	1,069	628	76,723	430,771
2342	2342	Corsets and allied garments.....	351	234	37,144	310,150
2351	2351	Millinery.....	711	221	14,183	93,168
2352	2352	Hats and caps.....	436	173	16,608	91,277
2361	2361	Children's dresses and blouses.....	667	412	35,792	205,623
2363	2363	Children's coats and suits.....	285	152	11,848	72,735
2369	2369	Children's outerwear, n.e.c.....	624	360	34,244	188,344
2371	2371	Fur goods.....	1,591	94	9,289	110,619
2381	2381	Fabric dress and work gloves.....	197	103	12,771	64,372
2384	2384	Robes and dressing gowns.....	271	144	11,889	68,717
2385	2385	Waterproof outer garments.....	341	196	16,148	111,342
2386	2386	Leather and sheeplined clothing.....	114	50	3,352	23,351
2387	2387	Apparel belts.....	389	141	9,841	62,172
2389	2389	Apparel, n.e.c.....	270	108	7,225	43,211
2391	2391	Curtains and draperies.....	1,121	255	21,955	131,995
2392	2392	Housefurnishings, n.e.c.....	1,239	422	39,690	285,759
2393	2393	Textile bags.....	192	88	7,191	56,523
2394	2394	Canvas products.....	881	124	11,170	73,534
2395	2395	Pleating and stitching.....	1,316	245	16,353	95,240
2396	2396	Apparel findings.....	756	213	24,539	227,810
2397	2397	Schiffli machine embroideries.....	759	68	6,145	55,411
2399	2399	Textile products, n.e.c.....	1,044	240	21,350	145,153

\*Represents part of the specified industry. (NA) Not available.



# Composition of Industries in the 1963 SIC--Continued

## Part 1. Derivation of 1963 SIC Industries from 1958 SIC Industries--Continued

Industry code		Industry title	Establishments		All employees (number)	Value added by manufacture (\$1,000)
1963 SIC	1958 SIC		Total (number)	With 20 employees or more (number)		
2411	2411	Logging camps and contractors.....	13,588	557	73,130	520,457
2421	2421	Sawmills and planing mills.....	12,189	2,151	207,365	1,376,080
2426	2426	Hardwood dimension and flooring.....	642	317	28,128	155,083
2429	2429	Special product sawmills, n.e.c.....	541	107	7,164	41,355
2431	2431	Millwork plants.....	3,770	748	65,283	524,041
2432	2432	Veneer and plywood plants.....	641	503	66,155	559,211
2433	2433	Prefabricated wood products.....	559	203	15,806	156,593
2441	2441	Nailed wooden boxes and shook.....	663	183	14,483	85,046
2442	2442	Wirebound boxes and crates.....	117	70	9,893	55,606
2443	2443	Veneer and plywood containers.....	99	44	3,953	16,086
2445	2445	Cooperage.....	107	23	2,616	17,494
2491	2491	Wood preserving.....	338	157	11,178	93,265
2499	----	Wood products, n.e.c.....	2,896	702	57,981	420,283
2499	2499	Wood products, n.e.c.....	2,896	702	57,981	420,283
2661*	2661*	Building paper and board mills.....	2,896	702	57,981	420,283
2511	2511	Wood furniture, not upholstered.....	3,063	992	140,982	993,200
2512	2512	Wood furniture, upholstered.....	1,785	713	67,850	506,727
2514	2514	Metal household furniture.....	517	244	29,346	247,003
2515	2515	Mattresses and bedsprings.....	1,120	340	30,061	285,510
2519	2519	Household furniture, n.e.c.....	75	30	2,054	15,054
2521	2521	Wood office furniture.....	138	58	6,516	57,018
2522	2522	Metal office furniture.....	170	107	19,928	228,329
2531	2531	Public building furniture.....	430	165	17,317	147,253
2541	2541	Wood partitions and fixtures.....	1,594	347	24,343	219,194
2542	2542	Metal partitions and fixtures.....	513	167	20,290	214,301
2591	2591	Venetian blinds and shades.....	717	59	10,102	88,905
2599	2599	Furniture and fixtures, n.e.c.....	356	91	7,540	65,871
2611	2611	Pulp mills.....	45	40	15,123	295,804
2621	2621	Paper mills, except building.....	325	313	129,848	1,857,203
2631	2631	Paperboard mills.....	271	259	63,398	1,186,224
2641	2641	Paper coating and glazing.....	387	181	31,983	457,367
2642	2642	Envelopes.....	230	173	20,728	188,963
2643	2643	Bags, except textile bags.....	586	297	42,343	369,685
2644	2644	Wallpaper.....	79	31	2,194	20,907
2645	2645	Die cut paper and board.....	425	156	15,135	183,185
2646	2646	Pressed and molded pulp goods.....	59	42	5,720	70,006
2647	----	Sanitary paper products.....	119	77	19,108	369,711
2649*	2649*	Paper and board products, n.e.c.....	119	77	19,108	369,711
2649	----	Converted paper products, n.e.c.....	610	239	29,514	302,546
2649*	2649*	Paper and board products, n.e.c.....	610	239	29,514	302,546
2651	2651	Folding paperboard boxes.....	636	418	51,291	476,866
2652	2652	Set-up paperboard boxes.....	503	317	20,459	131,688
2653	2653	Corrugated shipping containers.....	923	651	83,229	804,012
2654	2654	Sanitary food containers.....	186	144	32,879	402,211
2655	2655	Fiber cans, tubes, drums, etc.....	246	137	13,188	126,196
2661	----	Building paper and board mills.....	83	77	11,874	153,103
2661*	2661*	Building paper and board mills.....	83	77	11,874	153,103
2711	2711	Newspapers.....	8,331	1,865	306,439	3,201,872
2721	2721	Periodicals.....	2,630	402	67,730	1,349,030
2731	2731	Books, publishing and printing.....	993	256	46,812	995,736
2732	2732	Book printing.....	683	275	36,101	358,294
2741	2741	Miscellaneous publishing.....	1,374	177	22,551	252,932
2751	2751	Printing, except lithographic.....	12,109	1,404	170,215	1,578,275
2752	2752	Printing, lithographic.....	6,822	1,339	121,072	1,302,046
2753	2753	Engraving and plate printing.....	580	105	9,022	80,748
2761	2761	Manifold business forms.....	502	250	28,796	377,710
2771	2771	Greeting card manufacturing.....	257	93	21,535	204,608

\*Represents part of the specified industry. (NA) Not available.

# Composition of Industries in the 1963 SIC--Continued

## Part 1. Derivation of 1963 SIC Industries from 1958 SIC Industries--Continued

Industry code		Industry title	Establishments		All employees (number)	Value added by manufacture (\$1,000)
1963 SIC	1958 SIC		Total (number)	With 20 employees or more (number)		
2782	2782	Blank books; looseleaf binders.....	410	158	17,899	168,465
2789	2789	Bookbinding and related work.....	1,043	311	24,338	172,298
2791	2791	Typesetting.....	1,289	282	20,997	205,450
2793	2793	Photoengraving.....	883	218	14,620	171,796
2794	2794	Electrotyping and stereotyping.....	184	80	5,116	57,173
2812	2812	Alkalies and chlorine.....	38	37	19,652	389,243
2813	2813	Industrial gases.....	456	146	9,809	260,182
2814	2814	Cyclic (coal tar) crudes.....	36	17	1,636	35,103
2815	2815	Intermediate coal tar products.....	141	84	26,089	570,234
2816	2816	Inorganic pigments.....	96	49	11,544	286,407
2818	2818	Organic chemicals, n.e.c.....	464	241	85,492	2,727,450
2819	2819	Inorganic chemicals, n.e.c.....	674	323	82,430	1,902,563
2821	2821	Plastics materials and resins.....	509	256	61,366	1,202,349
2822	2822	Synthetic rubber.....	24	24	11,840	329,520
2823	2823	Cellulosic man-made fibers.....	19	19	30,086	411,529
2824	2824	Organic fibers, noncellulosic.....	25	24	41,421	922,001
2831	2831	Biological products.....	113	40	5,789	60,377
2833	2833	Medicinals and botanicals.....	138	42	8,128	151,297
2834	2834	Pharmaceutical preparations.....	1,011	319	85,084	2,595,657
2841	2841	Soap and other detergents.....	704	172	30,794	1,137,425
2842	2842	Polishes and sanitation goods.....	1,101	173	16,332	420,440
2843	2843	Surface active agents.....	148	59	4,108	75,698
2844	2844	Toilet preparations.....	707	183	34,338	1,232,883
2851	-----	Paints and allied products.....	1,788	654	61,267	1,111,681
	2851	Paints and varnishes.....	1,788	654	61,267	1,111,681
	2852	Putty and caulking compounds.....				
2861	2861	Gum and wood chemicals.....	246	53	6,787	100,329
2871	2871	Fertilizers.....	281	199	19,992	287,800
2872	2872	Fertilizers, mixing only.....	733	232	13,752	164,140
2879	-----	Agricultural chemicals, n.e.c.....	340	112	9,090	176,333
	2873	Agricultural pesticides.....	340	112	9,090	176,333
	2879	Agricultural chemicals, n.e.c.....				
2891	2891	Glue and gelatin.....	368	104	8,521	147,006
2892	2892	Explosives.....	68	47	14,814	165,733
2893	2893	Printing ink.....	348	103	8,455	125,138
2895	2895	Carbon black.....	33	31	3,010	91,752
2899	-----	Chemical preparations, n.e.c.....	1,384	242	25,788	505,868
	2894	Fatty acids.....	12	(NA)	1,711	36,473
	2899	Chemical preparations, n.e.c.....	1,372	(NA)	24,077	469,395
2911	2911	Petroleum refining.....	427	297	119,297	3,137,603
2951	2951	Paving mixtures and blocks.....	762	127	9,680	165,584
2952	2952	Asphalt felts and coatings.....	230	140	14,581	189,981
2992	2992	Lubricating oils and greases.....	353	108	8,433	199,074
2999	2999	Petroleum and coal products, n.e.c.....	67	17	1,495	20,989
3011	3011	Tires and inner tubes.....	155	96	85,259	1,321,712
3021	3021	Rubber footwear.....	53	46	29,147	216,959
3031	3031	Reclaimed rubber.....	13	13	2,010	27,378
3069	3069	Rubber products, n.e.c.....	1,173	620	132,228	1,427,022
3079	3079	Plastic products, n.e.c.....	4,334	1,674	166,315	1,660,882
3111	3111	Leather tanning and finishing.....	525	256	31,417	273,092
3121	3121	Industrial leather belting.....	83	23	2,870	32,915
3131	3131	Footwear cut stock.....	446	204	14,339	90,611
3141	3141	Shoes, except rubber.....	1,040	815	201,728	1,214,740
3142	3142	House slippers.....	153	97	11,039	64,555
3151	3151	Leather gloves.....	166	87	7,718	32,194
3161	3161	Luggage.....	379	145	16,409	112,796
3171	3171	Handbags and purses.....	545	262	24,548	142,554
3172	3172	Small leather goods.....	340	117	12,432	82,385
3199	3199	Leather goods, n.e.c.....	370	67	4,989	32,730

\*Represents part of the specified industry. (NA) Not available.



# Composition of Industries in the 1963 SIC--Continued

## Part 1. Derivation of 1963 SIC Industries from 1958 SIC Industries--Continued

Industry code		Industry title	Establishments		All employees (number)	Value added by manufacture (\$1,000)
1963 SIC	1958 SIC		Total (number)	With 20 employees or more (number)		
3211	3211	Flat glass.....	31	30	22,815	364,466
3221	3221	Glass containers.....	113	105	59,987	629,608
3229	3229	Pressed and blown glass, n.e.c.....	107	95	37,999	472,212
3231	3231	Products of purchased glass.....	1,044	249	26,158	309,734
3241	3241	Cement, hydraulic.....	188	179	34,863	785,681
3251	3251	Brick and structural tile.....	512	400	28,620	216,548
3253	3253	Ceramic wall and floor tile.....	90	64	12,795	110,571
3255	3255	Clay refractories.....	150	109	11,431	118,248
3259	3259	Structural clay products, n.e.c.....	164	108	12,188	108,442
3261	3261	Vitreous plumbing fixtures.....	49	43	9,280	101,502
3262	3262	Vitreous china food utensils.....	31	21	6,314	42,504
3263	3263	Fine earthenware food utensils.....	21	18	7,349	41,046
3264	3264	Porcelain electrical supplies.....	79	49	10,170	90,001
3269	3269	Pottery products, n.e.c.....	458	98	9,085	62,107
3271	3271	Concrete block and brick.....	1,841	367	23,759	245,525
3272	3272	Other concrete products.....	3,451	716	52,297	539,967
3273	3273	Ready mixed concrete.....	4,621	1,021	71,523	981,997
3274	3274	Lime.....	125	68	6,778	95,135
3275	3275	Gypsum products.....	122	72	11,491	259,659
3281	3281	Cut stone and stone products.....	893	211	18,340	131,465
3291	3291	Abrasive products.....	378	149	28,170	416,415
3292	3292	Asbestos products.....	124	84	19,516	269,067
3293	3293	Gaskets and insulations.....	295	111	16,825	160,734
3295	3295	Minerals, ground or treated.....	415	97	7,330	102,079
3296	3296	Mineral wool.....	123	67	14,733	206,846
3297	3297	Nonclay refractories.....	93	68	8,572	129,139
3299	3299	Nonmetallic products, n.e.c.....	320	56	5,471	53,289
3312	3312	Blast furnaces and steel mills.....	288	247	500,550	7,506,433
3313	3313	Electrometallurgical products.....	36	30	10,437	145,503
3315	3315	Steel wire drawing, etc.....	200	133	21,280	253,009
3316	3316	Cold finishing of steel shapes.....	81	68	13,700	223,977
3317	3317	Steel pipe and tube.....	141	115	22,882	295,242
3321	3321	Gray iron foundries.....	1,139	767	120,528	1,168,478
3322	3322	Malleable iron foundries.....	81	71	22,297	204,557
3323	3323	Steel foundries.....	267	220	56,810	586,914
3331	3331	Primary copper.....	33	33	14,949	285,510
3332	3332	Primary lead.....	10	10	2,578	24,876
3333	3333	Primary zinc.....	18	18	8,065	98,789
3334	3334	Primary aluminum.....	23	22	18,133	499,576
3339	3339	Primary nonferrous metals, n.e.c.....	35	26	5,064	103,830
3341	3341	Secondary nonferrous metals.....	459	179	15,445	228,190
3351	3351	Copper rolling and drawing.....	112	92	38,949	478,393
3352	3352	Aluminum rolling and drawing.....	212	153	54,263	721,171
3356	3356	Rolling and drawing, n.e.c.....	125	67	17,375	250,589
3357	3357	Nonferrous wire drawing, etc.....	299	227	56,418	677,535
3361	3361	Aluminum castings.....	954	321	36,216	343,863
3362	3362	Brass, bronze, copper castings.....	549	193	15,341	144,092
3369	3369	Nonferrous castings, n.e.c.....	391	165	17,686	168,530
3391	3391	Iron and steel forgings.....	272	189	36,317	395,302
3392	3392	Nonferrous forgings.....	34	19	6,297	71,378
3399	3399	Primary metal industries, n.e.c.....	754	218	14,956	192,250
3411	3411	Metal cans.....	270	206	53,245	830,515
3421	3421	Cutlery.....	161	67	11,837	213,998
3423	3423	Hand and edge tools.....	716	255	31,480	364,265
3425	3425	Hand saws and saw blades.....	76	42	5,095	65,634
3429	3429	Hardware, n.e.c.....	1,070	447	88,729	1,069,080
3431	3431	Metal plumbing fixtures.....	81	45	11,011	139,859

\*Represents part of the specified industry. (NA) Not available.

# Composition of Industries in the 1963 SIC--Continued

## Part 1. Derivation of 1963 SIC Industries from 1958 SIC Industries--Continued

Industry code		Industry title	Establishments		All employees (number)	Value added by manufacture (\$1,000)
1963 SIC	1958 SIC		Total (number)	With 20 employees or more (number)		
3432	3432	Plumbing fittings, brass goods.....	250	102	15,129	154,752
3433	3433	Heating equipment, except electric.....	648	280	42,020	495,652
3441	3441	Fabricated structural steel.....	1,718	817	85,423	814,805
3442	3442	Metal doors, sash, and trim.....	1,817	628	62,799	570,370
3443	3443	Boiler shop products.....	1,383	601	75,018	770,064
3444	3444	Sheet metal work.....	3,250	755	61,651	632,384
3446	----	Architectural metal work.....	1,334	173	15,587	148,763
	3449*	Miscellaneous metal work, n.e.c.....	1,334	173	15,587	148,763
3449	----	Miscellaneous metal work, n.e.c.....	697	246	24,992	283,427
	3449*	Miscellaneous metal work, n.e.c.....	697	246	24,992	283,427
3451	3451	Screw machine products.....	1,874	516	36,909	358,961
3452	3452	Bolts, nuts, rivets and washers.....	573	323	57,618	695,276
3461	3461	Metal stampings.....	2,574	1,116	132,179	1,368,993
3471	3471	Plating and polishing.....	3,023	677	44,962	370,202
3479	3479	Metal coating, engraving, etc.....	1,258	276	20,669	184,546
3481	3481	Fabricated wire products, n.e.c.....	1,567	557	55,514	539,137
3491	3491	Metal barrels, drums, and pails.....	145	93	10,508	119,617
3492	3492	Safes and vaults.....	32	15	3,346	56,223
3493	3493	Steel springs.....	96	49	6,287	69,305
3494	3494	Valves and pipe fittings.....	646	374	80,407	942,700
3496	3496	Collapsible tubes.....	24	19	3,984	30,562
3497	3497	Metal foil and leaf.....	67	40	4,981	63,486
3498	3498	Fabricated pipe and fittings.....	349	146	13,007	144,598
3499	3499	Fabricated metal products, n.e.c.....	1,277	346	28,302	299,326
3511	3511	Steam engines and turbines.....	22	21	30,917	379,875
3519	3519	Internal combustion engines.....	143	81	55,687	733,628
3522	3522	Farm machinery and equipment.....	1,568	558	112,614	1,328,381
3531	3531	Construction machinery.....	617	305	104,520	1,301,266
3532	3532	Mining machinery and equipment.....	204	93	16,910	215,406
3533	3533	Oilfield machinery.....	408	176	29,203	398,152
3534	3534	Elevators and moving stairways.....	142	74	12,393	201,527
3535	3535	Conveyors.....	454	175	20,778	270,475
3536	3536	Holsts, cranes, and monorails.....	120	56	9,585	112,327
3537	3537	Industrial trucks and tractors.....	314	108	17,570	233,116
3541	3541	Metal-cutting machine tools.....	801	269	61,058	699,341
3542	3542	Metal-forming machine tools.....	366	146	22,078	281,287
3544	3544	Special dies and tools.....	5,896	1,133	90,860	1,029,338
3545	3545	Machine tool accessories.....	1,038	347	46,994	559,258
3548	3548	Metalworking machinery, n.e.c.....	435	168	38,012	468,435
3551	3551	Food products machinery.....	681	279	31,684	380,406
3552	3552	Textile machinery.....	561	216	36,004	314,190
3553	3553	Woodworking machinery.....	249	91	12,057	146,998
3554	3554	Paper industries machinery.....	217	92	18,605	217,475
3555	3555	Printing trades machinery.....	490	136	22,952	285,879
3559	3559	Special industry machinery, n.e.c.....	1,091	387	49,950	561,768
3561	3561	Pumps and compressors.....	642	267	61,322	768,787
3562	3562	Ball and roller bearings.....	125	93	52,316	627,694
3564	3564	Blowers and fans.....	237	97	15,244	180,801
3565	3565	Industrial patterns.....	1,209	106	9,914	112,587
3566	3566	Power transmission equipment.....	532	272	46,670	555,710
3567	3567	Industrial furnaces and ovens.....	239	94	12,394	153,477
3569	3569	General industry machines, n.e.c.....	777	277	35,559	424,084
3571	3571	Computing and related machines.....	248	139	96,370	1,101,484
3572	3572	Typewriters.....	21	16	18,023	243,190
3576	3576	Scales and balances.....	85	35	5,765	64,362
3579	3579	Office machines, n.e.c.....	161	75	16,980	224,654
3581	3581	Automatic vending machines.....	158	68	11,672	121,365
3582	3582	Commercial laundry equipment.....	115	58	6,542	70,771
3585	3585	Refrigeration machinery.....	698	347	72,330	892,686
3586	3586	Measuring and dispensing pumps.....	43	27	6,768	91,713

\*Represents part of the specified industry. (NA) Not available.



# Composition of Industries in the 1963 SIC--Continued

## Part 1. Derivation of 1963 SIC Industries from 1958 SIC Industries--Continued

Industry code		Industry title	Establishments		All employees (number)	Value added by manufacture (\$1,000)
1963 SIC	1958 SIC		Total (number)	With 20 employees or more (number)		
3589	----	Service industry machines, n.e.c.....	506	142	15,257	192,379
	3584	Vacuum cleaners, industrial.....				
	3589	Service industry machines, n.e.c.....	506	142	15,257	192,379
3599	3599	Miscellaneous machinery.....	12,090	1,402	135,820	1,366,327
3611	3611	Electric measuring instruments.....	560	209	44,715	505,309
3612	3612	Transformers.....	177	99	33,365	381,514
3613	3613	Switchgear and switchboards.....	400	214	54,045	647,838
3621	3621	Motors and generators.....	384	244	94,170	993,207
3622	3622	Industrial controls.....	339	108	32,990	450,507
3623	3623	Electric welding apparatus.....	149	75	9,629	162,411
3624	3624	Carbon and graphite products.....	53	40	10,123	141,423
3629	3629	Electric industrial goods, n.e.c.....	231	109	14,041	141,633
3631	3631	Household cooking equipment.....	83	53	19,191	230,285
3632	3632	Household refrigerators.....	34	25	43,065	631,269
3633	3633	Household laundry equipment.....	39	28	18,343	353,863
3634	3634	Electric housewares and fans.....	312	136	38,801	463,845
3635	3635	Household vacuum cleaners.....	34	13	5,682	116,137
3636	3636	Sewing machines.....	86	17	7,646	98,328
3639	3639	Household appliances, n.e.c.....	112	67	13,127	204,188
3641	3641	Electric lamps.....	81	50	23,404	362,235
3642	3642	Lighting fixtures.....	1,239	480	53,866	587,834
3643	3643	Current carrying devices.....	449	180	35,424	355,643
3644	3644	Noncurrent carrying devices.....	182	103	20,290	253,918
3651	3651	Radio and TV receiving sets.....	348	178	81,264	911,954
3652	3652	Phonograph records.....	167	60	9,554	125,388
3661	3661	Telephone; telegraph apparatus.....	90	56	89,465	1,013,792
3662	3662	Radio, TV communication equipment.....	1,132	635	387,384	4,327,671
3671	3671	Electron tubes, receiving type.....	42	22	25,850	250,681
3672	3672	Cathode ray picture tubes.....	151	28	10,916	128,354
3673	3673	Electron tubes, transmitting.....	57	45	18,704	204,614
3674	----	Semiconductors.....	107	87	56,349	467,035
	3679*	Electronic components, n.e.c.....	107	87	56,349	467,035
3679	----	Electronic components, n.e.c.....	1,934	968	176,708	1,457,433
	3679*	Electronic components, n.e.c.....	1,934	968	176,708	1,457,433
3691	3691	Storage batteries.....	252	120	17,512	244,152
3692	3692	Primary batteries, dry and wet.....	46	29	8,478	113,787
3693	3693	X-ray apparatus and tubes.....	58	30	6,236	86,534
3694	3694	Engine electrical equipment.....	182	98	40,559	496,662
3699	3699	Electrical products, n.e.c.....	350	106	10,923	101,221
3713	3713	Truck and bus bodies.....	610	208	24,466	229,472
3715	3715	Truck trailers.....	197	105	19,429	205,475
3717	3717	Motor vehicles and parts.....	1,958	909	649,926	12,345,630
3721	3721	Aircraft.....	100	65	302,201	3,542,695
3722	3722	Aircraft engines and parts.....	232	172	190,834	2,244,317
3723	3723	Aircraft propellers and parts.....	14	8	11,183	113,433
3729	3729	Aircraft equipment, n.e.c.....	1,000	470	175,167	1,966,904
3731	3731	Ship building and repairing.....	334	200	114,649	1,009,690
3732	3732	Boat building and repairing.....	1,626	268	24,861	183,059
3741	3741	Locomotives and parts.....	24	12	14,337	186,241
3742	3742	Railroad and street cars.....	78	58	30,742	355,230
3751	3751	Motorcycles, bicycles, and parts.....	88	33	9,662	82,245
3791	3791	Trailer coaches.....	413	252	25,669	232,460
3799	3799	Transportation equipment, n.e.c.....	522	108	8,032	68,823
3811	3811	Scientific instruments.....	594	213	33,084	358,588
3821	3821	Mechanical measuring devices.....	670	258	62,353	732,529
3822	3822	Automatic temperature controls.....	104	54	31,685	379,091
3831	3831	Optical instruments and lenses.....	280	79	11,924	131,917
3841	3841	Surgical and medical instruments.....	294	117	15,145	168,556

\*Represents part of the specified industry. (NA) Not available.

# Composition of Industries in the 1963 SIC--Continued

## Part 1. Derivation of 1963 SIC Industries from 1958 SIC Industries--Continued

Industry code		Industry title	Establishments		All employees (number)	Value added by manufacture (\$1,000)
1963 SIC	1958 SIC		Total (number)	With 20 employees or more (number)		
3842	3842	Surgical appliances and supplies.....	704	162	28,267	370,273
3843	3843	Dental equipment and supplies.....	316	66	8,008	95,876
3851	3851	Ophthalmic goods.....	229	109	20,296	177,898
3861	3861	Photographic equipment.....	538	187	64,937	1,270,132
3871	3871	Watches and clocks.....	167	76	27,047	288,053
3872	3872	Watchcases.....	53	22	2,706	19,218
3911	3911	Jewelry, precious metal.....	1,438	218	23,551	234,925
3912	3912	Jewelers' findings and materials.....	228	67	4,816	33,958
3913	3913	Lapidary work.....	318	15	1,535	16,129
3914	3914	Silverware and plated ware.....	209	87	13,249	130,735
3931	3931	Musical instruments and parts.....	320	126	20,095	179,035
3941	3941	Games and toys.....	797	351	51,835	444,101
3942	3942	Dolls.....	410	160	16,213	138,100
3943	3943	Children's vehicles.....	64	31	4,542	35,304
3949	3949	Sporting and athletic goods.....	1,419	345	40,543	360,980
3951	3951	Pens and mechanical pencils.....	139	67	11,562	119,069
3952	3952	Lead pencils and art goods.....	144	57	6,868	64,731
3953	3953	Marking devices.....	616	90	7,625	85,572
3955	3955	Carbon paper and inked ribbons.....	102	52	5,539	68,353
3961	3961	Costume jewelry.....	912	204	21,655	150,999
3962	3962	Artificial flowers.....	384	70	4,958	29,194
3963	3963	Buttons.....	290	69	5,599	43,751
3964	3964	Needles, pins, and fasteners.....	343	149	20,271	190,868
3981	3981	Brooms and brushes.....	643	167	16,637	167,866
3982	3982	Hard surface floor coverings.....	16	13	6,192	118,832
3983	3983	Matches.....	26	23	4,647	38,666
3984	3984	Candles.....	111	32	3,167	26,306
3987	3987	Lamp shades.....	228	48	3,583	20,476
3988	3988	Morticians' goods.....	617	224	17,283	158,422
3992	3992	Furs, dressed and dyed.....	132	26	2,577	30,240
3993	3993	Signs and advertising displays.....	3,206	570	43,476	407,478
3995	3995	Umbrellas, parasols, and canes.....	112	35	2,604	16,101
3999	3999	Miscellaneous products, n.e.c.....	1,499	322	30,138	252,170
1911	1911	Guns, howitzers, and mortars.....	60	37	24,988	235,211
1999	1999	Ordnance and accessories, n.e.c.....				
1925	1925	Complete guided missiles.....		29	148,908	1,924,812
1929	----	Ammunition, n.e.c.....	44	34	32,578	285,774
	1921	Artillery ammunition.....	44			
	1922	Ammunition loading.....		34	32,578	285,774
	1929	Ammunition, n.e.c.....				
1931	1931	Tanks and tank components.....	26	19	11,307	148,369
1941	1941	Sighting and fire control equipment.....	13	8	9,249	96,281
1951	1951	Small arms, 30mm and under.....	52	23	9,995	88,302
1961	1961	Small arms ammunition.....	31	13	8,909	103,772

\*Represents part of the specified industry. (NA) Not available.



# Composition of Industries in the 1963 SIC--Continued

## Part 2. Distribution of 1958 SIC Industries Among 1963 SIC Industries

Industry code		Industry title	Establishments		All employees (number)	Value added by manufacture (\$1,000)
1958 SIC	1963 SIC		Total (number)	With 20 employees or more (number)		
2011	2011	Meat slaughtering plants.....	2,992	976	180,873	1,908,309
2013	2013	Meat processing plants.....	1,341	483	48,599	563,362
2015	2015	Poultry dressing plants.....	967	559	70,104	410,909
2021	2021	Creamery butter.....	766	178	11,992	132,665
2022	----	Natural cheese.....	(NA)	(NA)	(NA)	(NA)
	2022*	Natural and process cheese.....	(NA)	(NA)	(NA)	(NA)
2023	2023	Condensed and evaporated milk.....	281	166	12,255	236,250
2024	2024	Ice cream and frozen desserts.....	1,081	387	29,143	433,006
2025	----	Special dairy products.....	(NA)	(NA)	(NA)	(NA)
	2022 *	Natural and process cheese.....	(NA)	(NA)	(NA)	(NA)
2026	2026	Fluid milk.....	4,619	1,948	185,050	2,203,196
2031	2031	Canned and cured seafoods.....	405	196	17,271	174,634
2032	2032	Canned specialties.....	173	77	25,156	540,835
2033	2033	Canned fruits and vegetables.....	1,430	836	102,388	1,029,467
2034	2034	Dehydrated foods products.....	176	80	9,152	115,795
2035	2035	Pickles, sauces, salad dressings.....	588	184	19,041	249,397
2036	2036	Fresh or frozen packaged fish.....	547	255	20,066	118,451
2037	2037	Frozen fruits and vegetables.....	650	346	51,750	550,231
2041	2041	Flour mills.....	618	218	22,405	373,090
2042	2042	Prepared animal feeds.....	2,590	711	54,649	983,691
2043	2043	Cereal preparations.....	48	30	11,358	365,022
2044	2044	Rice milling.....	74	49	4,256	80,507
2045	2045	Blended and prepared flour.....	165	60	7,199	177,826
2046	2046	Wet corn milling.....	60	20	13,236	290,918
2051	2051	Bread and related products.....	5,010	1,904	236,984	2,403,782
2052	2052	Biscuit, crackers, and cookies.....	356	208	43,160	627,040
2061	2061	Raw cane sugar.....	74	73	8,263	135,686
2062	2062	Cane sugar refining.....	25	25	12,443	254,418
2063	2063	Beet sugar.....	65	62	11,297	200,698
2071	2071	Confectionery products.....	1,211	411	63,643	635,393
2072	2072	Chocolate and cocoa products.....	28	23	8,743	184,796
2073	2073	Chewing gum.....	24	17	5,558	135,848
2082	2082	Malt liquors.....	222	180	62,643	1,286,036
2083	2083	Malt.....	42	31	1,925	43,979
2084	2084	Wines and brandy.....	222	70	6,111	137,281
2085	2085	Distilled liquor except brandy.....	107	89	18,009	623,736
2086	2086	Bottled and canned soft drinks.....	3,905	1,530	106,850	1,233,629
2087	2087	Flavorings.....	520	97	9,083	400,173
2091	2091	Cottonseed oil mills.....	188	153	8,372	100,815
2092	2092	Soybean oil mills.....	102	71	6,478	152,143
2093	2093	Vegetable oil mills, n.e.c.....	47	22	1,952	42,692
2094	----	Grease and tallow.....	(NA)	(NA)	(NA)	(NA)
	2094*	Animal and marine fats and oils.....	(NA)	(NA)	(NA)	(NA)
2095	----	Animal oils, n.e.c.....	(NA)	(NA)	(NA)	(NA)
	2094*	Animal and marine fats and oils.....	(NA)	(NA)	(NA)	(NA)
2096	2096	Shortening and cooking oils.....	115	86	13,511	264,501
2097	2097	Manufactured ice.....	1,199	135	10,757	90,204
2098	2098	Macaroni and spaghetti.....	221	70	7,270	96,012
2099	----	Food preparations, n.e.c.....	2,514	680	71,402	1,466,017
	2095	Roasted coffee.....	324	133	17,125	616,407
	2099	Food preparations, n.e.c.....	2,190	547	54,277	849,610
2111	2111	Cigarettes.....	14	14	35,568	1,310,325
2121	2121	Cigars.....	193	82	20,731	192,998
2131	2131	Chewing and smoking tobacco.....	51	25	4,058	73,975
2141	2141	Tobacco stemming and redrying.....	136	110	16,973	103,296

\*Represents part of the specified industry. (NA) Not available.

# Composition of Industries in the 1963 SIC--Continued

## Part 2. Distribution of 1958 SIC Industries Among 1963 SIC Industries--Continued

Industry code		Industry title	Establishments		All employees (number)	Value added by manufacture (\$1,000)
1958 SIC	1963 SIC		Total (number)	With 20 employees or more (number)		
2211	2211	Weaving mills, cotton.....	407	350	208,993	1,256,753
2221	2221	Weaving mills, synthetics.....	355	300	88,157	661,535
2231	2231	Weaving, finishing mills, wool.....	361	249	47,429	386,622
2241	2241	Narrow fabric mills.....	384	215	23,154	172,493
2251	2251	Women's hosiery, except socks.....	939	606	94,867	488,511
2252	2252	Hosiery, n.e.c.....				
2253	2253	Knit outerwear mills.....	1,185	666	68,570	463,585
2254	2254	Knit underwear mills.....	118	104	28,364	170,709
2256	2256	Knit fabric mills.....	518	243	25,046	252,908
2259	2259	Knitting mills, n.e.c.....	88	45	3,639	20,309
2261	2261	Finishing plants, cotton.....	238	140	42,055	332,290
2262	2262	Finishing plants, synthetic.....	205	138	19,528	176,819
2269	2269	Finishing plants, n.e.c.....	178	85	9,236	73,159
2271	2271	Woven carpets and rugs.....	64	31	13,357	120,004
2272	2272	Tufted carpets and rugs.....	181	121	19,854	259,343
2279	2279	Carpets and rugs, n.e.c.....	104	35	2,445	15,595
2281	2281	Yarn mills, except wool.....	317	284	61,647	363,177
2282	2282	Throwing and winding mills.....	180	110	13,559	93,649
2283	2283	Wool yarn mills.....	144	121	17,385	119,718
2284	2284	Thread mills.....	71	36	10,056	75,821
2291	2291	Felt goods, n.e.c.....	36	30	4,952	58,625
2292	2292	Lace goods.....	152	51	4,912	31,472
2293	2293	Padding and upholstery filling.....	183	73	6,932	65,588
2294	2294	Processed textile waste.....	141	59	4,240	30,961
2295	2295	Coated fabric, not rubberized.....	161	86	13,475	177,307
2296	2296	Tire cord and fabric.....	20	19	9,163	72,267
2297	2297	Scouring and combing plants.....	69	38	5,798	45,402
2298	2298	Cordage and twine.....	167	76	8,920	57,614
2299	2299	Textile goods, n.e.c.....	137	56	7,283	78,746
2311	2311	Men's and boys' suits and coats.....	1,112	635	122,679	831,910
2321	2321	Men's dress shirts and nightwear.....	834	566	113,193	601,620
2322	2322	Men's and boys' underwear.....	80	63	12,084	63,186
2323	2323	Men's and boys' neckwear.....	341	117	8,385	58,136
2327	2327	Separate trousers.....	735	423	73,848	383,134
2328	2328	Work clothing.....	439	353	62,477	330,653
2329	2329	Men's and boys' clothing, n.e.c.....	554	365	35,917	183,224
2331	2331	Women's and misses' blouses.....	1,175	718	57,595	300,525
2335	2335	Women's and misses' dresses.....	4,752	3,013	200,003	1,180,883
2337	2337	Women's suits, coats, and skirts.....	2,516	1,380	88,332	637,869
2339	2339	Women's outerwear, n.e.c.....	1,297	709	59,536	340,462
2341	2341	Women's and children's underwear.....	1,069	628	76,723	430,771
2342	2342	Corsets and allied garments.....	351	234	37,144	310,150
2351	2351	Millinery.....	711	221	14,183	93,168
2352	2352	Hats and caps.....	436	173	16,608	91,277
2361	2361	Children's dresses and blouses.....	667	412	35,792	205,623
2363	2363	Children's coats and suits.....	285	152	11,848	72,735
2369	2369	Children's outerwear, n.e.c.....	624	360	34,244	188,344
2371	2371	Fur goods.....	1,591	94	9,289	110,619
2381	2381	Fabric dress and work gloves.....	197	103	12,771	64,372
2384	2384	Robes and dressing gowns.....	271	144	11,889	68,717
2385	2385	Waterproof outer garments.....	341	196	16,148	111,342
2386	2386	Leather and sheeplined clothing.....	114	50	3,352	23,351
2387	2387	Apparel belts.....	389	141	9,841	62,172
2389	2389	Apparel, n.e.c.....	270	108	7,225	43,211
2391	2391	Curtains and draperies.....	1,121	255	21,955	131,995
2392	2392	Housefurnishings, n.e.c.....	1,239	422	39,690	285,759
2393	2393	Textile bags.....	192	88	7,191	56,523
2394	2394	Canvas products.....	881	124	11,170	73,534
2395	2395	Pleating and stitching.....	1,316	245	16,353	95,240
2396	2396	Apparel findings.....	756	213	24,539	227,810
2397	2397	Schiffli machine embroideries.....	759	68	6,145	55,411
2399	2399	Textile products, n.e.c.....	1,044	240	21,350	145,153

\*Represents part of the specified industry. (NA) Not available.



# Composition of Industries in the 1963 SIC--Continued

## Part 2. Distribution of 1958 SIC Industries Among 1963 SIC Industries--Continued

Industry code		Industry title	Establishments		All employees (number)	Value added by manufacture (\$1,000)
1958 SIC	1963 SIC		Total (number)	With 20 employees or more (number)		
2411	2411	Logging camps and contractors.....	13,588	557	73,130	520,457
2421	2421	Sawmills and planing mills.....	12,189	2,151	207,365	1,376,080
2426	2426	Hardwood dimension and flooring.....	642	317	28,128	155,083
2429	2429	Special products sawmills, n.e.c.....	541	107	7,164	41,355
2431	2431	Millwork plants.....	3,770	748	65,283	524,041
2432	2432	Veneer and plywood plants.....	641	503	66,155	559,211
2433	2433	Prefabricated wood products.....	559	203	15,806	156,593
2441	2441	Nailed wooden boxes and shook.....	663	183	14,483	85,046
2442	2442	Wirebound boxes and crates.....	117	70	9,893	55,606
2443	2443	Veneer and plywood containers.....	99	44	3,953	16,086
2445	2445	Cooperage.....	107	23	2,616	17,494
2491	2491	Wood preserving.....	338	157	11,178	93,265
2499	----	Wood products, n.e.c.....	(NA)	(NA)	(NA)	(NA)
	2499*	Wood products, n.e.c.....	(NA)	(NA)	(NA)	(NA)
2511	2511	Wood furniture, not upholstered.....	3,063	992	140,982	993,200
2512	2512	Wood furniture, upholstered.....	1,785	713	67,850	506,727
2514	2514	Metal household furniture.....	517	244	29,346	247,003
2515	2515	Mattresses and bedsprings.....	1,120	340	30,061	285,510
2519	2519	Household furniture, n.e.c.....	75	30	2,054	15,054
2521	2521	Wood office furniture.....	138	58	6,516	57,018
2522	2522	Metal office furniture.....	170	107	19,928	228,329
2531	2531	Public building furniture.....	430	165	17,317	147,253
2541	2541	Wood partitions and fixtures.....	1,594	347	24,343	219,194
2542	2542	Metal partitions and fixtures.....	513	167	20,290	214,301
2591	2591	Venetian blinds and shades.....	717	59	10,102	88,905
2599	2599	Furniture and fixtures, n.e.c.....	356	91	7,540	65,871
2611	2611	Pulp mills.....	45	40	15,123	295,804
2621	2621	Paper mills, except building.....	325	313	129,848	1,857,203
2631	2631	Paperboard mills.....	271	259	63,398	1,186,224
2641	2641	Paper coating and glazing.....	387	181	31,983	457,367
2642	2642	Envelopes.....	230	173	20,728	188,963
2643	2643	Bags, except textile bags.....	586	297	42,343	369,685
2644	2644	Wallpaper.....	79	31	2,194	20,907
2645	2645	Die cut paper and board.....	425	156	15,135	183,185
2646	2646	Pressed and molded pulp goods.....	59	42	5,720	70,006
2649	----	Paper and board products, n.e.c.....	729	316	48,622	672,257
	2647	Sanitary paper products.....	119	77	19,108	369,711
	2649	Converted paper products, n.e.c.....	610	239	29,514	302,546
2651	2651	Folding paperboard boxes.....	636	418	51,291	476,866
2652	2652	Set-up paperboard boxes.....	503	317	20,459	131,688
2653	2653	Corrugated shipping containers.....	923	651	83,229	804,012
2654	2654	Sanitary food containers.....	186	144	32,879	402,211
2655	2655	Fiber cans, tubes, drums, etc.....	246	137	13,188	126,196
2661	----	Building paper and board mills.....	(NA)	(NA)	(NA)	(NA)
	2661	Building paper and board mills.....	(NA)	(NA)	(NA)	(NA)
	2499*	Wood products, n.e.c.....	(NA)	(NA)	(NA)	(NA)
2711	2711	Newspapers.....	8,331	1,865	306,439	3,201,872
2721	2721	Periodicals.....	2,630	402	67,730	1,349,030
2731	2731	Books, publishing and printing.....	993	256	46,812	995,736
2732	2732	Book printing.....	683	275	36,101	358,294
2741	2741	Miscellaneous publishing.....	1,374	177	22,551	252,932
2751	2751	Printing, except lithographic.....	12,109	1,404	170,215	1,578,275
2752	2752	Printing, lithographic.....	6,822	1,339	121,072	1,302,046
2753	2753	Engraving and plate printing.....	580	105	9,022	80,748
2761	2761	Manifold business forms.....	502	250	28,796	377,710
2771	2771	Greeting card manufacturing.....	257	93	21,535	204,608

\*Represents part of the specified industry. (NA) Not available.

# Composition of Industries in the 1963 SIC--Continued

## Part 2. Distribution of 1958 SIC Industries Among 1963 SIC Industries--Continued

Industry code		Industry title	Establishments		All employees (number)	Value added by manufacture (\$1,000)
1958 SIC	1963 SIC		Total (number)	With 20 employees or more (number)		
2782	2782	Blankbooks; looseleaf binders.....	410	158	17,899	168,465
2789	2789	Bookbinding and related work.....	1,043	311	24,338	172,298
2791	2791	Typesetting.....	1,289	282	20,997	205,450
2793	2793	Photoengraving.....	883	218	14,620	171,796
2794	2794	Electrotyping and stereotyping.....	184	80	5,116	57,173
2812	2812	Alkalies and chlorine.....	38	37	19,652	389,243
2813	2813	Industrial gases.....	456	146	9,809	260,182
2814	2814	Cyclic (coal tar) crudes.....	36	17	1,636	35,103
2815	2815	Intermediate coal tar products.....	141	84	26,089	570,234
2816	2816	Inorganic pigments.....	96	49	11,544	286,407
2818	2818	Organic chemicals, n.e.c.....	464	241	85,492	2,727,450
2819	2819	Inorganic chemicals, n.e.c.....	674	323	82,430	1,902,563
2821	2821	Plastics materials and resins.....	509	256	61,366	1,202,349
2822	2822	Synthetic rubber.....	24	24	11,840	329,520
2823	2823	Cellulosic man-made fibers.....	19	19	30,086	411,529
2824	2824	Organic fibers, noncellulosic.....	25	24	41,421	922,001
2831	2831	Biological products.....	113	40	5,789	60,377
2833	2833	Medicinals and botanicals.....	138	42	8,128	151,297
2834	2834	Pharmaceutical preparations.....	1,011	319	85,084	2,595,657
2841	2841	Soap and other detergents.....	704	172	30,794	1,137,425
2842	2842	Polishes and sanitation goods.....	1,101	173	16,332	420,440
2843	2843	Surface active agents.....	148	59	4,108	75,698
2844	2844	Toilet preparations.....	707	183	34,338	1,232,883
2851	----	Paints and varnishes.....	(NA)	(NA)	(NA)	(NA)
	2851*	Paints and allied products.....	(NA)	(NA)	(NA)	(NA)
2852	----	Putty and caulking compounds.....	(NA)	(NA)	(NA)	(NA)
	2851*	Paints and allied products.....	(NA)	(NA)	(NA)	(NA)
2861	2861	Gum and wood chemicals.....	246	53	6,787	100,329
2871	2871	Fertilizers.....	281	199	19,992	287,800
2872	2872	Fertilizers, mixing only.....	733	232	13,752	164,140
2873	----	Agricultural pesticides.....	(NA)	(NA)	(NA)	(NA)
	2879*	Agricultural chemicals, n.e.c.....	(NA)	(NA)	(NA)	(NA)
2879	----	Agricultural chemicals, n.e.c.....	(NA)	(NA)	(NA)	(NA)
	2879*	Agricultural pesticides and other agricultural chemicals, n.e.c.....	(NA)	(NA)	(NA)	(NA)
2891	2891	Glue and gelatin.....	368	104	8,521	147,006
2892	2892	Explosives.....	68	47	14,814	165,733
2893	2893	Printing ink.....	348	103	8,455	125,138
2894	----	Fatty acids.....	12	(NA)	1,711	36,473
	2899*	Chemical preparations, n.e.c.....	12	(NA)	1,711	36,473
2895	2895	Carbon black.....	33	31	3,010	91,752
2899	----	Chemical preparations, n.e.c.....	1,372	(NA)	24,077	469,395
	2899*	Chemical preparations, n.e.c.....	1,372	(NA)	24,077	469,395
2911	2911	Petroleum refining.....	427	297	119,297	3,137,603
2951	2951	Paving mixtures and blocks.....	762	127	9,680	165,584
2952	2952	Asphalt felts and coatings.....	230	140	14,581	189,981
2992	2992	Lubricating oils and greases.....	353	108	8,433	199,074
2999	2999	Petroleum and coal products, n.e.c.....	67	17	1,495	20,989
3011	3011	Tires and inner tubes.....	155	96	85,259	1,321,712
3021	3021	Rubber footwear.....	53	46	29,147	216,959
3031	3031	Reclaimed rubber.....	13	13	2,010	27,378
3069	3069	Rubber products, n.e.c.....	1,173	620	132,228	1,427,022
3079	3079	Plastics products, n.e.c.....	4,334	1,674	166,315	1,660,882
3111	3111	Leather tanning and finishing.....	525	256	31,417	273,092
3121	3121	Industrial leather belting.....	83	23	2,870	32,915
3131	3131	Footwear cut stock.....	446	204	14,339	90,611
3141	3141	Shoes, except rubber.....	1,040	815	201,728	1,214,740
3142	3142	House slippers.....	153	97	11,039	64,555

\*Represents part of the specified industry. (NA) Not available.



# Composition of Industries in the 1963 SIC--Continued

## Part 2. Distribution of 1958 SIC Industries Among 1963 SIC Industries--Continued

Industry code		Industry title	Establishments		All employees (number)	Value added by manufacture (\$1,000)
1958 SIC	1963 SIC		Total (number)	With 20 employees or more (number)		
3151	3151	Leather gloves.....	166	87	7,718	32,194
3161	3161	Luggage.....	379	145	16,409	112,796
3171	3171	Handbags and purses.....	545	262	24,548	142,554
3172	3172	Small leather goods.....	340	117	12,432	82,385
3199	3199	Leather goods, n.e.c.....	370	67	4,989	32,730
3211	3211	Flat glass.....	31	30	22,815	364,466
3221	3221	Glass containers.....	113	105	59,987	629,608
3229	3229	Pressed and blown glass, n.e.c.....	107	95	37,999	472,212
3231	3231	Products of purchased glass.....	1,044	249	26,158	309,734
3241	3241	Cement, hydraulic.....	188	179	34,863	785,681
3251	3251	Brick and structural tile.....	512	400	28,620	216,548
3253	3253	Ceramic wall and floor tile.....	90	64	12,795	110,571
3255	3255	Clay refractories.....	150	109	11,431	118,248
3259	3259	Structural clay products, n.e.c.....	164	108	12,188	108,442
3261	3261	Vitreous plumbing fixtures.....	49	43	9,280	101,502
3262	3262	Vitreous china food utensils.....	31	21	6,314	42,504
3263	3263	Earthenware food utensils.....	21	18	7,349	41,046
3264	3264	Porcelain electrical supplies.....	79	49	10,170	90,001
3269	3269	Pottery products, n.e.c.....	458	98	9,085	62,107
3271	3271	Concrete block and brick.....	1,841	367	23,759	245,525
3272	3272	Other concrete products.....	3,451	716	52,297	539,967
3273	3273	Ready mixed concrete.....	4,621	1,021	71,523	981,997
3274	3274	Lime.....	125	68	6,778	95,135
3275	3275	Gypsum products.....	122	72	11,491	259,659
3281	3281	Cut stone and stone products.....	893	211	18,340	131,465
3291	3291	Abrasive products.....	378	149	28,170	416,415
3292	3292	Asbestos products.....	124	84	19,516	269,067
3293	3293	Gaskets and insulations.....	295	111	16,825	160,734
3295	3295	Minerals, ground or treated.....	415	97	7,330	102,079
3296	3296	Mineral wool.....	123	67	14,733	206,846
3297	3297	Nonclay refractories.....	93	68	8,572	129,139
3299	3299	Nonmetallic products, n.e.c.....	320	56	5,471	53,289
3312	3312	Blast furnaces and steel mills.....	288	247	500,550	7,506,433
3313	3313	Electrometallurgical products.....	36	30	10,437	145,503
3315	3315	Steel wire drawing, etc.....	200	133	21,280	253,009
3316	3316	Cold finishing of steel shapes.....	81	68	13,700	223,977
3317	3317	Steel pipe and tube.....	141	115	22,882	295,242
3321	3321	Gray iron foundries.....	1,139	767	120,528	1,168,478
3322	3322	Malleable iron foundries.....	81	71	22,297	204,557
3323	3323	Steel foundries.....	267	220	56,810	586,914
3331	3331	Primary copper.....	33	33	14,949	285,510
3332	3332	Primary lead.....	10	10	2,578	24,876
3333	3333	Primary zinc.....	18	18	8,065	98,789
3334	3334	Primary aluminum.....	23	22	18,133	499,576
3339	3339	Primary nonferrous metals, n.e.c.....	35	26	5,064	103,830
3341	3341	Secondary nonferrous metals.....	459	179	15,445	228,190
3351	3351	Copper rolling and drawing.....	112	92	38,949	478,393
3352	3352	Aluminum rolling and drawing.....	212	153	54,263	721,171
3356	3356	Rolling and drawing, n.e.c.....	125	67	17,375	250,589
3357	3357	Nonferrous wire drawing, etc.....	299	227	56,418	677,535
3361	3361	Aluminum castings.....	954	321	36,216	343,863
3362	3362	Brass, bronze, copper castings.....	549	193	15,341	144,092
3369	3369	Nonferrous castings, n.e.c.....	391	165	17,686	168,530
3391	3391	Iron and steel forgings.....	272	189	36,317	395,302
3392	3392	Nonferrous forgings.....	34	19	6,297	71,378
3399	3399	Primary metal industries, n.e.c.....	754	218	14,956	192,250
3411	3411	Metal cans.....	270	206	53,245	830,515
3421	3421	Cutlery.....	161	67	11,837	213,998
3423	3423	Hand and edge tools.....	716	255	31,480	364,265
3425	3425	Hand saws and saw blades.....	76	42	5,095	65,634

\*Represents part of the specified industry. (NA) Not available.

# Composition of Industries in the 1963 SIC--Continued

## Part 2. Distribution of 1958 SIC Industries Among 1963 SIC Industries--Continued

Industry code		Industry title	Establishments		All employees (number)	Value added by manufacture (\$1,000)
1958 SIC	1963 SIC		Total (number)	With 20 employees or more (number)		
3429	3429	Hardware, n.e.c.....	1,070	447	88,729	1,069,080
3431	3431	Metal plumbing fixtures.....	81	45	11,011	139,859
3432	3432	Plumbing fittings, brass goods.....	250	102	15,129	154,752
3433	3433	Heating equipment, except electric.....	648	280	42,020	495,652
3441	3441	Fabricated structural steel.....	1,718	817	85,423	814,805
3442	3442	Metal doors, sash, and trim.....	1,817	628	62,799	570,370
3443	3443	Boiler shop products.....	1,383	601	75,018	770,064
3444	3444	Sheet metal work.....	3,250	755	61,651	632,384
3449	----	Miscellaneous metal work, n.e.c.....	2,031	419	40,579	432,190
3446	3446	Architectural metal work.....	1,334	173	15,587	148,763
3449	3449	Miscellaneous metal work.....	697	246	24,992	283,427
3451	3451	Screw machine products.....	1,874	516	36,909	358,961
3452	3452	Bolts, nuts, rivets and washers.....	573	323	57,618	695,276
3461	3461	Metal stampings.....	2,574	1,116	132,179	1,368,993
3471	3471	Plating and polishing.....	3,023	677	44,962	370,202
3479	3479	Metal coating, engraving, etc.....	1,258	276	20,669	184,546
3481	3481	Fabricated wire products, n.e.c.....	1,567	557	55,514	539,137
3491	3491	Metal barrels, drums and pails.....	145	93	10,508	119,617
3492	3492	Safes and vaults.....	32	15	3,346	56,223
3493	3493	Steel springs.....	96	49	6,287	69,305
3494	3494	Valves and pipe fittings.....	646	374	80,407	942,700
3496	3496	Collapsible tubes.....	24	19	3,984	30,562
3497	3497	Metal foil and leaf.....	67	40	4,981	63,486
3498	3498	Fabricated pipe and fittings.....	349	146	13,007	144,598
3499	3499	Fabricated metal products, n.e.c.....	1,277	346	28,302	299,326
3511	3511	Steam engines and turbines.....	22	21	30,917	379,875
3519	3519	Internal combustion engines.....	143	81	55,687	733,628
3522	3522	Farm machinery and equipment.....	1,568	558	112,614	1,328,381
3531	3531	Construction machinery.....	617	305	104,520	1,301,266
3532	3532	Mining machinery and equipment.....	204	93	16,910	215,406
3533	3533	Oil field machinery.....	408	176	29,203	398,152
3534	3534	Elevators and moving stairways.....	142	74	12,393	201,527
3535	3535	Conveyors.....	454	175	20,778	270,475
3536	3536	Hoists, cranes, and monorails.....	120	56	9,585	112,327
3537	3537	Industrial trucks and tractors.....	314	108	17,570	233,116
3541	3541	Metal-cutting machine tools.....	801	269	61,058	699,341
3542	3542	Metal-forming machine tools.....	366	146	22,078	281,287
3544	3544	Special dies and tools.....	5,896	1,133	90,360	1,029,338
3545	3545	Machine tool accessories.....	1,038	347	46,994	559,258
3548	3548	Metalworking machinery, n.e.c.....	435	168	38,012	468,435
3551	3551	Food products machinery.....	681	279	31,684	380,406
3552	3552	Textile machinery.....	561	216	36,004	314,190
3553	3553	Woodworking machinery.....	249	91	12,057	146,998
3554	3554	Paper industries machinery.....	217	92	18,605	217,475
3555	3555	Printing trades machinery.....	490	136	22,952	285,879
3559	3559	Special industry machinery, n.e.c.....	1,091	387	49,950	561,768
3561	3561	Pumps and compressors.....	642	267	61,322	768,787
3562	3562	Ball and roller bearings.....	125	93	52,316	627,694
3564	3564	Blowers and fans.....	237	97	15,244	180,801
3565	3565	Industrial patterns.....	1,209	106	9,914	112,587
3566	3566	Power transmission equipment.....	532	272	46,670	555,710
3567	3567	Industrial furnaces and ovens.....	239	94	12,394	153,477
3569	3569	General industry machines, n.e.c.....	777	277	35,559	424,084
3571	3571	Computing and related machines.....	248	139	96,370	1,101,484
3572	3572	Typewriters.....	21	16	18,023	243,190
3576	3576	Scales and balances.....	85	35	5,765	64,362
3579	3579	Office machines, n.e.c.....	161	75	16,980	224,654
3581	3581	Automatic vending machines.....	158	68	11,672	121,365
3582	3582	Commercial laundry equipment.....	115	58	6,542	70,771
3584	----	Vacuum cleaners, industrial.....	(NA)	(NA)	(NA)	(NA)
3589*	3589*	Service industry machines, n.e.c.....	(NA)	(NA)	(NA)	(NA)

\*Represents part of the specified industry. (NA) Not available.



# Composition of Industries in the 1963 SIC--Continued

## Part 2. Distribution of 1958 SIC Industries Among 1963 SIC Industries--Continued

Industry code		Industry title	Establishments		All employees (number)	Value added by manufacture (\$1,000)
1958 SIC	1963 SIC		Total (number)	With 20 employees or more (number)		
3585	3585	Refrigeration machinery.....	698	347	72,330	892,686
3586	3586	Measuring and dispensing pumps.....	43	27	6,768	91,713
3589	----	Service industry machines, n.e.c.....	(NA)	(NA)	(NA)	(NA)
	3589*	Service industry machines, n.e.c.....	(NA)	(NA)	(NA)	(NA)
3599	3599	Miscellaneous machinery.....	12,090	1,402	135,820	1,336,327
3611	3611	Electric measuring instruments.....	560	209	44,715	505,309
3612	3612	Transformers.....	177	99	33,365	381,514
3613	3613	Switchgear and switchboards.....	400	214	54,045	647,838
3621	3621	Motors and generators.....	384	244	94,170	993,207
3622	3622	Industrial controls.....	339	108	32,990	450,507
3623	3623	Welding apparatus.....	149	75	9,629	162,411
3624	3624	Carbon and graphite products.....	53	40	10,123	141,423
3629	3629	Electric industrial goods, n.e.c.....	231	109	14,041	141,633
3631	3631	Household cooking equipment.....	83	53	19,191	230,285
3632	3632	Household refrigerators.....	34	25	43,065	631,269
3633	3633	Household laundry equipment.....	39	28	18,343	353,863
3634	3634	Electric housewares and fans.....	312	136	38,801	463,845
3635	3635	Household vacuum cleaners.....	34	13	5,682	116,137
3636	3636	Sewing machines.....	86	17	7,646	98,328
3639	3639	Household appliances, n.e.c.....	112	67	13,127	204,188
3641	3641	Electric lamps.....	81	50	23,404	362,235
3642	3642	Lighting fixtures.....	1,239	480	53,866	587,834
3643	3643	Current carrying devices.....	449	180	35,424	355,643
3644	3644	Noncurrent carrying devices.....	182	103	20,290	253,918
3651	3651	Radio and TV receiving sets.....	348	178	81,264	911,954
3652	3652	Phonograph records.....	167	60	9,554	125,388
3661	3661	Telephone; telegraph apparatus.....	90	56	89,465	1,013,792
3662	3662	Radio, TV communications equipment.....	1,132	635	387,384	4,327,671
3671	3671	Electron tubes, receiving type.....	42	22	25,850	250,681
3672	3672	Cathode ray picture tubes.....	151	28	10,916	128,354
3673	3673	Electron tubes, transmitting.....	57	45	18,704	204,614
3679	----	Electronic components, n.e.c.....	2,041	1,055	233,057	1,924,468
	3674	Semiconductors.....	107	87	56,349	467,035
	3679	Electronic components, n.e.c.....	1,934	968	176,708	1,457,433
3691	3691	Storage batteries.....	252	120	17,512	244,152
3692	3692	Primary batteries, dry and wet.....	46	29	8,478	113,787
3693	3693	X-ray apparatus and tubes.....	58	30	6,236	86,534
3694	3694	Engine electrical equipment.....	182	98	40,559	496,662
3699	3699	Electrical products, n.e.c.....	350	106	10,923	101,221
3713	3713	Truck and bus bodies.....	610	208	24,466	229,472
3715	3715	Truck trailers.....	197	105	19,429	205,475
3717	3717	Motor vehicles and parts.....	1,958	909	649,926	12,345,630
3721	3721	Aircraft.....	100	65	302,201	3,542,695
3722	3722	Aircraft engines and parts.....	232	172	190,834	2,244,317
3723	3723	Aircraft propellers and parts.....	14	8	11,183	113,433
3729	3729	Aircraft equipment, n.e.c.....	1,000	470	175,167	1,966,904
3731	3731	Ship building and repairing.....	334	200	114,649	1,009,690
3732	3732	Boat building and repairing.....	1,626	268	24,861	183,059
3741	3741	Locomotives and parts.....	24	12	14,337	186,241
3742	3742	Railroad and street cars.....	78	58	30,742	355,230
3751	3751	Motorcycles, bicycles, and parts.....	88	33	9,662	82,245
3791	3791	Trailer coaches.....	413	252	25,669	232,460
3799	3799	Transportation equipment, n.e.c.....	522	108	8,032	68,823
3811	3811	Scientific instruments.....	594	213	33,084	358,588
3821	3821	Mechanical measuring devices.....	670	258	62,353	732,529
3822	3822	Automatic temperature controls.....	104	54	31,685	379,091
3831	3831	Optical instruments and lenses.....	280	79	11,924	131,917
3841	3841	Surgical and medical instruments.....	294	117	15,145	168,556
3842	3842	Surgical appliances and supplies.....	704	162	28,267	370,273

\*Represents part of the specified industry.

(NA) Not available.

# Composition of Industries in the 1963 SIC--Continued

## Part 2. Distribution of 1958 SIC Industries Among 1963 SIC Industries--Continued

Industry code		Industry title	Establishments		All employees (number)	Value added by manufacture (\$1,000)
1958 SIC	1963 SIC		Total (number)	With 20 employees or more (number)		
3843	3843	Dental equipment and supplies.....	316	66	8,008	95,876
3851	3851	Ophthalmic goods.....	229	109	20,296	177,898
3861	3861	Photographic equipment.....	538	187	64,937	1,270,132
3871	3871	Watches and clocks.....	167	76	27,047	288,053
3872	3872	Watchcases.....	53	22	2,706	19,218
3911	3911	Jewelry, precious metal.....	1,438	218	23,551	234,925
3912	3912	Jewelers' findings and materials.....	228	67	4,816	33,958
3913	3913	Lapidary work.....	318	15	1,535	16,129
3914	3914	Silverware and plated ware.....	209	87	13,249	130,735
3931	3931	Musical instruments and parts.....	320	126	20,095	179,035
3941	3941	Games and toys.....	797	351	51,835	444,101
3942	3942	Dolls.....	410	160	16,213	138,100
3943	3943	Childrens' vehicles.....	64	31	4,542	35,304
3949	3949	Sporting and athletic goods.....	1,419	345	40,543	360,980
3951	3951	Pens and mechanical pencils.....	139	67	11,562	119,069
3952	3952	Lead pencils and art goods.....	144	57	6,868	67,731
3953	3953	Marking devices.....	616	90	7,625	85,572
3955	3955	Carbon paper and inked ribbons.....	102	52	5,539	68,353
3961	3961	Costume jewelry.....	912	204	21,655	150,999
3962	3962	Artificial flowers.....	384	70	4,958	29,194
3963	3963	Buttons.....	290	69	5,599	43,751
3964	3964	Needles, pins, and fasteners.....	343	149	20,271	190,868
3981	3981	Brooms and brushes.....	643	167	16,637	167,866
3982	3982	Hard surface floor coverings.....	16	13	6,192	118,832
3983	3983	Matches.....	26	23	4,647	38,666
3984	3984	Candles.....	111	32	3,167	26,306
3987	3987	Lamp shades.....	228	48	3,583	20,476
3988	3988	Morticians' goods.....	617	224	17,283	158,422
3992	3992	Furs, dressed and dyed.....	132	26	2,577	30,240
3993	3993	Signs and advertising displays.....	3,206	570	43,476	407,478
3995	3995	Umbrellas, parasols, and canes.....	112	35	2,604	16,101
3999	3999	Miscellaneous products, n.e.c.....	1,499	322	30,138	252,170
1911	1911	Guns, howitzers, and mortars.....	60	37	24,988	235,211
1999	1999	Ordnance and accessories, n.e.c.....				
1921	----	Artillery ammunition.....	(NA)	(NA)	(NA)	(NA)
1929*	1929*	Ammunition, n.e.c.....	(NA)	(NA)	(NA)	(NA)
1922	----	Ammunition loading.....	(NA)	(NA)	(NA)	(NA)
1929*	1929*	Ammunition, n.e.c.....	(NA)	(NA)	(NA)	(NA)
1925	1925	Complete guided missiles.....	31	29	148,908	1,924,812
1929	----	Ammunition, n.e.c.....	(NA)	(NA)	(NA)	(NA)
1929*	1929*	Ammunition, n.e.c.....	(NA)	(NA)	(NA)	(NA)
1931	1931	Tanks and tank components.....	26	19	11,307	148,369
1941	1941	Sighting and fire control equipment.....	13	8	9,249	96,281
1951	1951	Small arms, 30mm and under.....	52	23	9,995	88,302
1961	1961	Small arms ammunition.....	31	13	8,909	103,772

\*Represents part of the specified industry.

(NA) Not available.





## Appendix D

### CENSUS REPORT FORMS AND PUNCH CARDS

In the 1963 Census of Manufactures, approximately 180 standard length report forms were employed in collecting data from all "annual survey of manufactures" establishments and from all of the larger "non-annual survey" establishments. A typical report form, MC-35Q, sent to establishments primarily producing industrial furnaces and ovens, is reproduced on pages D-2 to D-13 of this appendix. Inquiry items 1 to 16 were identical on all forms. Differences among forms are reflected in items 17 and 18, requesting information, respectively, on materials consumed in manufacture and products and services of the establishment. These items were "tailored" to reporting by establishments primarily utilizing the selected materials shown and primarily producing the products or performing the manufacturing services listed. Items 19, 20, and 21 are similarly different among forms and were intended to secure information of special significance to the industries primarily covered on the report form. For annual survey establishments, the front sheet of the 1963 report form was the annual survey report form used for 1962 and 1963 with provisions for entering figures for 1963.

In addition to the standard length forms, 50 short or abbreviated forms were used for smaller establishments. A copy of one such short form, MC-36Z, covering electrical machinery, equipment and supplies, is reproduced on pages D-22 to D-24 of this appendix. The size cut-off for the use of these short forms varied by industry, in most instances below 6 and in the others below 10 employees. The abbreviated forms requested information on a few key items: Number of employees; payrolls; total

cost of materials; and value of shipments by class of product. For those few industries in which small plants constituted a significant proportion of the total value of shipments, modified short forms were designed to collect some detail on the individual products shipped and less frequently on the types of materials used. The appendix also reproduces the general instructions for completing the standard length report forms. No instructions accompanied the short forms; all reporting instructions were contained on the form itself.

Copies of the basic punch cards utilized for tabulating the data reported on the 1963 Census of Manufactures forms are shown on page D-25. One card was used for punching data reported on the standard length form; the other for the short form.

For the 1963 Census of Manufactures, additional report forms were used to cover separately operated central administrative offices and auxiliary units, plants under construction but not operated in 1963, etc. Copies of these forms are not shown in this appendix but are described in the introductory text appearing at the beginning of this volume.

A copy of Form MC-D3, covering Department of Defense owned and operated establishments, primarily engaged in manufacture or in research and development, will be found on pages D-26 to D-29 of this appendix. Statistics developed from these forms will be found in the special report section of this volume.

On pages D-30 to D-31 is a copy of supplemental report form MA-175, Report on Shipments to or Receipts for Work Done for Federal Government Agencies and Their Contractors and Suppliers in 1963. Pages D-32 to D-33 contain a copy of supplemental form MA-161, Exports of Manufactured Products 1963. Data from both of these supplemental surveys are published in the special reports section of this volume.



U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS

# 1963 CENSUS OF MANUFACTURES

INDUSTRIAL FURNACES AND OVENS

## PLEASE NOTE:

- The Census Bureau reviews your report for omissions, inconsistencies, and unusual ratios. Incomplete and inaccurate answers will result in correspondence which is both costly and time consuming. Be sure to **complete every item**. Enter "0" in Items 2-8 if appropriate.
- If book records are not available, reasonably accurate estimates for most items are acceptable for the statistical purposes of this survey.
- Please complete and return this form in the envelope provided to the **Jeffersonville Census Operations Office, Jeffersonville, Indiana**. If filing by due date causes an undue burden, a request for extension should be directed to that office.
- SEE SUPPLEMENTAL INSTRUCTIONS ON PAGE 6.
- PLEASE READ INSTRUCTIONS BEFORE COMPLETING REPORT.

## ITEM 1. GENERAL INFORMATION

### A. NAME OF ESTABLISHMENT

**B. PHYSICAL LOCATION OF ESTABLISHMENT on December 31, 1963.** (Your answers to this item should relate to the ACTUAL PHYSICAL LOCATION of this establishment which may be different from the mailing address.)

(1) Street and number at establishment location\*

\*If establishment location cannot be described by street and number, give name (and number, if any) of road or highway and sufficient information to locate establishment, e.g., Rt. 25, 3 miles south of Charlottesville.

(2) Place (Check type of place and enter name)

Type (Check first applicable one)	Name of place
<input type="checkbox"/> City	
<input type="checkbox"/> Village or Borough	
<input type="checkbox"/> Town	
<input type="checkbox"/> Township	
<input type="checkbox"/> Other (Specify)	

(3) Is the establishment within the legal boundary of the place reported in (2) above? ☐ Yes ☐ No

## ITEM 2. NUMBER OF EMPLOYEES

**Production Workers**—Workers (up through the working foreman level) engaged in fabricating, processing, assembling, inspecting, receiving, packing, warehousing, shipping (but not delivering), maintenance, repair, janitorial, watchman services, product development, auxiliary production for plant's own use (e.g., powerplant), recordkeeping, and other closely associated services. Exclude proprietors and partners.

**All Other Employees**—Nonproduction personnel, including those engaged in the following activities: supervision above working foreman level, sales (including driver salesmen), sales delivery (truck drivers and helpers), advertising, credit collection, installation and servicing of own products, clerical and routine office functions, executive, purchasing, finance, legal, personnel (incl. cafeteria, etc.), professional and technical. Exclude proprietors and partners.

(See Supplemental Instructions on Page 6)

**IMPORTANT:** Figures for dollars, man-hours and KWH (in Items 3-8) should be rounded to THOUSANDS. If you wish you may report to the nearest unit. In either case, **please be careful to enter your figures in the CORRECT COLUMNS.**

(See example at right)

## ITEM 3. PAYROLLS

Enter the total (before deductions) of wages, salaries, bonuses, commissions, and other remunerations paid in 1963 to "Production Workers," and "All Other Employees," as defined in Item 2 above. Exclude payments to proprietors and partners.

(See Supplemental Instructions on Page 6)

**CONFIDENTIAL**—Response to this inquiry is required by Act of Congress (13 U.S.C.). The report you submit to the Census Bureau is confidential and may be seen only by sworn Census employees. It may not be used for purposes of taxation, investigation or regulation. Copies retained in your files are also immune from legal process.

In correspondence pertaining to this report please refer to the 11-digit file number in the box above your name.

MC-35Q (3517)

(Please correct if mailing address has changed)

Key	1963		Number of production workers during pay period ended nearest 15th of—
	a. March	b. May	
0-1			
0-2			
0-3			
0-4			
0-5			
0-6	e. Sum of lines a-d		
0-7	f. AVERAGE NUMBER (Divide sum on line e by 4—omit fractions and decimals.)		
0-8	g. All other employees, March 15, 1963		
	h. TOTAL NUMBER OF EMPLOYEES (Sum of lines f and g)		

Millions	Thousands	Dollars	Cents
000	000	000	XX
\$ 1	126		XX
\$ 1	125	628	XX

If the payroll is \$1,125,628.28:  
Preferred method →  
Acceptable method →

Mill.	Thous.	Doll.	Cents
			1
\$			1-1
\$			1-2
\$			1-3

a. Production workers' wages  
b. All other employees' salaries and wages  
c. TOTAL PAYROLL (Sum of lines a and b) →



(4) County

(5) State

C. FORM OF OWNERSHIP AT END OF 1963

(Check one)

1 ☐ Individual proprietor

2 ☐ Partnership

0 ☐ Corporation (Do not include any form of cooperative association)

8 ☐ Cooperative association (corporate or non-corporate)

9 ☐ Other (Specify) \_\_\_\_\_

D. FEDERAL SOCIAL SECURITY IDENTIFICATION NUMBER

Enter identification number used for this establishment (as shown on Employer's Quarterly Federal Tax Return, Treasury form 941).

\_\_\_\_\_

E. COMPANY ORGANIZATION

(1) Does this company operate more than one place of business under the same Identification Number shown in D above?

Yes ☐

No ☐

(2) Does this company own or control another company?

Yes ☐

No ☐

(3) Is this company owned or controlled by another company?

Yes ☐

No ☐

(If "Yes" is checked in Part (3), give name and address of owning or controlling company.)

\_\_\_\_\_

FOR CENSUS USE ONLY

1	2	3	4	5	6	7	8
	10	11	12	13	14	15	16

ITEM 4. PLANT MAN-HOURS OF PRODUCTION WORKERS BY QUARTER

Enter the total number of plant man-hours of production workers (as defined in Item 2 above) for each calendar quarter (or comparable 13-week period) of 1963. Do not include hours for paid vacations, holidays or sick leave.

	Mil.	Thous.	Per.	XXX
a. January through March 1963				1-4
b. April through June 1963				1-5
c. July through September 1963				1-6
d. October through December 1963				1-7
e. TOTAL PRODUCTION WORKERS' MAN-HOURS (Sum of Lines a-d)				1-8

ITEM 5. COST OF MATERIALS, FUELS, ELECTRICITY AND CONTRACT WORK

On Lines a and c, report the cost of all items actually consumed or put into production in 1963, whether purchased, withdrawn from inventories, or received from other establishments of this company. Purchase records instead of consumption records may be used if purchases closely approximate consumption. "Cost" refers to amounts actually paid or payable after discounts, and includes freight and other direct charges incurred in acquiring the items.

(See Supplemental Instructions on Page 6)

	Mil.	Thous.	Per.	XXX
a. Cost of materials, parts, components, containers, supplies, etc., consumed				2-1
b. Cost of goods sold without further manufacture, processing or assembly				2-2
c. Cost of fuels consumed				2-3
d. Cost of purchased electricity				2-4
e. Cost of contract work done for you by others on your materials				2-5
f. TOTAL COST (Sum of Lines a-e)				2-6

ITEM 6. INVENTORIES OF THIS ESTABLISHMENT

Report all inventories of this establishment at the beginning and end of 1963 on a comparable basis. The reported figures should be in terms of cost (if feasible, on a current cost basis).

Key	Type of inventory	Beginning of 1963	End of 1963	XXX
3		Mil. Thous.	Mil. Thous.	
3-1	Finished products	\$		3-5
3-2	Work-in-process	\$		3-6
3-3	Materials, supplies, fuels, etc.	\$		3-7
3-4	d. TOTAL (Sum of a, b, & c)	\$		3-8

ITEM 7. CAPITAL EXPENDITURES (Exclude land)

Expenditures refer to all costs actually incurred during 1963 which are chargeable to the fixed assets accounts and which are of the type for which depreciation accounts are ordinarily maintained. Do not include the cost of maintenance and repairs charged as current operating expense. If you did not make any expenditure of the kind described, enter "0" on Line d.

	Mil.	Thous.	Per.	XXX
a. New structures and additions to plant				4-1
b. New machinery and new equipment				4-2
c. Used plant and used equipment acquired from others				4-3
d. TOTAL CAPITAL EXPENDITURES (Sum of Lines a, b, and c)				4-4

D-3

Please continue on Page 2

100167 OF-1





**ITEM 13**

**CHECKS TO ASSURE A COMPLETE AND ACCURATE REPORT (Please complete this item after you have answered all items on the report.)**

The Census Bureau reviews your report for omissions, inconsistencies, and unusual ratios. To save you future correspondence about these problems, please make the following checks before returning your report:

- Review the report carefully to see that no items are omitted for the year being covered.
- Enter the results after calculating the four "reasonableness" checks (described below) and review the results.
- Correct your report for any errors you find; explain unusual figures in Remarks Section.

"Reasonableness" checks		Calculation required for each check (Use figures reported in "Millions and Thousands" columns)	Resulting figures for 1963
(1) Average hourly wages per production worker		Item 3a (Production workers' wages) ÷ Item 4e (Total man-hours)	\$
(2) Hours worked per year per production worker		Item 4e (Total man-hours) × 1000 ÷ Item 2f (Average number of production workers)	Hrs.
(3) Salaries and wages per dollar of shipments		Item 3c (Total payroll) ÷ Item 18 (Total value of shipments)	¢
(4) Materials cost per dollar of shipments		Item 5f (Total materials cost) ÷ Item 18 (Total value of shipments)	¢

- (5) Is the total for value of shipments (Item 18) greater than the sum for payroll (Item 3c) plus total cost of materials, etc. (Item 5f)?

☐ Yes ☐ No (If "No," please explain in Remarks Section)

**ITEM 14**

**REMARKS PERTAINING TO THE REPORT**

**ITEM 15**

Not applicable to this form.



## 1963 CENSUS OF MANUFACTURES

## INDUSTRIAL FURNACES AND OVENS—Continued

Name of establishment (Same as address box)

## ITEM 16

## INDUSTRIAL WATER USE DURING 1963

a. The total quantity of water intake (fresh and brackish) in this establishment during the entire year 1963— (Check one box only.)

1 ☐ Under 1 million gallons3 ☐ 10 to 19 million gallons5 ☐ 100 million gallons or over2 ☐ 1 to 9 million gallons4 ☐ 20 to 99 million gallonsb. Was your principal source of water (1) from a publicly- or privately-owned utility; or, (2) from other source? . . . 1 ☐ Utility 2 ☐ Other source

## ITEM 17

## CONSUMPTION OF SELECTED MATERIALS DURING 1963

REPORT SEPARATELY FOR EACH LISTED MATERIAL THAT WAS ACTUALLY CONSUMED OR PUT IN PRODUCTION DURING 1963

## Section A—CONSUMPTION OF MATERIALS PURCHASED OR RECEIVED FROM OTHER ESTABLISHMENTS

## INSTRUCTIONS

The sum (Line 17) of the costs of the listed items, including that for "All other materials, parts, containers, and supplies consumed," should be the same as Item 5a.

Detailed instructions regarding the valuation of materials transferred from other establishments of your company are included in the Instruction Manual.

If consumption records are unavailable, figures may be derived from purchase or receipt records. (See Instruction Manual)

For items produced in this establishment and consumed or incorporated in products made in this establishment, enter quantities in Section B of Item 17, Page 4.

**NOTE:** Cost figures preferably should be rounded to THOUSANDS OF DOLLARS. If you wish, you may report to the nearest dollar. Please be careful to enter your figures in the CORRECT COLUMNS. (See example at right)

## EXAMPLE

If the material cost for  
Line 1 is \$1,948,376:

		Delivered cost (D)	
		Mil- lions	Thou- sands
		000	000
		\$ 1	948
		\$ 1	948

Preferred method  
Acceptable method**If \$5,000 or more of the listed item was consumed—****Column (C)—Quantity**—Enter the quantity in the unit of measure specified in Column (B-2). Omit quantities if column is shaded.**Column (D)—Delivered Cost**—Enter the amount paid or payable, including delivery cost (freight-in).**If some but less than \$5,000 of the listed item was consumed—****Column (E)**—Enter an "X" in the box opposite the listed item. (Include the cost of materials checked with "All other materials, components, etc." Line 16.)

7		7-1		7-2		7-3		7-4	
Materials, parts and supplies		Census material code		Consumption of purchased materials and of materials received from other establishments of your company		Consumption of purchased materials and of materials received from other establishments of your company		Consumption of purchased materials and of materials received from other establishments of your company	
Line number	(A)	(B-1)	(B-2)	Unit of measure for quantities	Quantity	If \$5,000 or more of the listed item was consumed -			If you consumed some but less than \$5,000 worth of the listed item - (Enter an "X" in the box.)
						Millions	Thousands	Delivered cost (D)	
1	MILL SHAPES AND FORMS (except castings)	331012	5	Short tons		\$			<input type="checkbox"/> 1
2	Carbon steel	331013	3	Short tons		\$			<input type="checkbox"/> 1
3	Plates	331015	8	Short tons		\$			<input type="checkbox"/> 1
4	Structural shapes	331019	0	Short tons		\$			<input type="checkbox"/> 1
5	All other carbon steel mill shapes and forms	331020	8	Short tons		\$			<input type="checkbox"/> 1
6	Alloy steel (except stainless)	331031	5	Short tons		\$			<input type="checkbox"/> 1
7	Stainless steel	335728	2	Thousand pounds		\$			<input type="checkbox"/> 1
8	Bare wire (for electrical conduction only)	335790	2	Thousand pounds		\$			<input type="checkbox"/> 1
9	Insulated wire and cable (Report copper content in Column (C))								
10	Rod, bar, and mechanical wire, including extruded and/or drawn shapes	335102	0	Thousand pounds		\$			<input type="checkbox"/> 1
11	Plate, sheet, and strip (including mill-tary cups and discs)	335123	6	Thousand pounds		\$			<input type="checkbox"/> 1
12	Pipe and tube	335127	7	Thousand pounds		\$			<input type="checkbox"/> 1
13	Sheet, plate and foil	335202	8	Thousand pounds		\$			<input type="checkbox"/> 1
14	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)	335205	1	Thousand pounds		\$			<input type="checkbox"/> 1
15	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.)	335209	3	Thousand pounds		\$			<input type="checkbox"/> 1
16	Steel castings (rough and semi-finished)	332300	3	Short tons		\$			<input type="checkbox"/> 1

Please continue on Page 4



## Section A—CONSUMPTION OF MATERIALS PURCHASED OR RECEIVED FROM OTHER ESTABLISHMENTS—Continued

See example on Page 3 (instructions) for reporting values) =

Line number	7	7-1	Unit of measure for quantities (B-2)	7-2				7-3				7-4
				Consumption of purchased materials and of materials received from other establishments of your company								
				Quantity (C)	Delivered cost (D)			If \$5,000 or more of the listed item was consumed—	If you consumed some but less than \$5,000 worth of the listed item— (Enter an "X" in the box) (E)			
					Mil-lions 000	Thou-sands 000	Dol-lars 000			Cen-t XX		
16	(A) Materials, parts and supplies  All other materials and components, parts, containers, and supplies consumed. (List the three principal "All other materials, etc." included in the above.)	970099	8		\$							
17	TOTAL (Sum of Lines 1-16 should be same as Item 5a)				\$							

## Section B—CONSUMPTION OF CASTINGS PRODUCED IN THIS ESTABLISHMENT AND CONSUMED IN MANUFACTURING OTHER PRODUCTS MADE IN THIS ESTABLISHMENT

Report below the quantity of each listed item produced in this establishment and consumed in manufacturing other products made in this establishment.

**Materials used to produce the items specified below should be reported in Section A of Item 17 above.**

Quantities produced for sale as such and not for incorporation in other products should be reported in Item 18 below.

Purchases or receipts of the items specified below should be reported only in Section A above.

**Report quantities in the unit of measure specified in Column (B-2).**

Item (A)	7	7-1XXXX		7-5
	Census material code (B-1)		Unit of measure for quantities (B-2)	Quantities produced in this establishment and consumed in manufacturing other products made in this establishment (F)
Steel castings (rough and semi-finished)	332300	3	Short tons	

PLEASE READ THE ENTIRE LIST OF PRODUCTS AND SERVICES BELOW BEFORE ANSWERING THIS INQUIRY

## INSTRUCTIONS

**Report on Lines 1-20 for all products made;** and on Lines 21-26 for **services and other activities** performed at this establishment during 1963.

**DO NOT COMBINE PRODUCT LINES.** If any of your products are not included in the listed items, report these on Lines 17-20.

**Products shipped and other receipts**—Report the quantity and value of each product made and physically shipped during 1963 from this establishment, **including products shipped to other plants**, sales branches, retail stores, or warehouses of your company and on consignment. Deduct returned goods. Also report the value of services performed at this establishment.

**Column (D)—Quantity**—Report quantities in number of units. Omit quantities if column is shaded.

**NOTE:** Value figures preferably should be rounded to THOUSANDS OF DOLLARS. If you wish, you may report to the nearest dollar. **Please be careful to enter your figures in the CORRECT COLUMNS.** (See example at right)

## EXAMPLE

If the value of products for Line 3 is \$1,125,328.28:

Preferred method →  
Acceptable method →

Value, f.o.b. plant (£)			
Mil- lions	Thou- sands	Dol- lars	Cen- ts
000	000	000	XX
\$ 1	125		XX
\$ 1	125	328	XX

Report on Line 26 the selling value, f.o.b. plant, of products which were resold as originally purchased and not used in further manufacturing, processing, or assembling of products made in this establishment.

**Column (E)—Value, f.o.b. plant**—Report totals based on net selling values, f.o.b. plant. Net selling values should not include discounts, allowances, freight charges, and excise taxes.

**Companies transferring products from this establishment to other manufacturing plants, sales branches, retail stores, or warehouses, should carefully study and follow instructions appearing in the Instruction Manual.**

**Installation (or construction of product)**—See Supplemental Instructions on Page 6.

Line number	Products and services		Census product code (B-1)	Quantity (Number of units) (D)	Value, f.o.b. plant (£)			
	Products shipped and other receipts				Value, f.o.b. plant (£)			
					Mil- lions	Thou- sands	Dol- lars	Cen- ts
1	ELECTRIC INDUSTRIAL FURNACES	Electric furnaces (excluding induction)	35671 11 45		\$			XX
2	AND OVENS, METAL PROCESSING	Metal processing and heat treating (such as annealing, hardening, carburizing, and porcelain enameling furnaces)	35671 21 35		\$			XX
3		Electric, including infrared, industrial ovens	35671 43 75		\$			XX

Please continue on Page 5

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# 1963 CENSUS OF MANUFACTURES

## INDUSTRIAL FURNACES AND OVENS—Continued

ITEM 18

### PRODUCTS AND SERVICES OF THIS ESTABLISHMENT DURING 1963—Continued

See example on Page 4 (instructions) for reporting values.

Line number	Products and services	(A)	Census product code (B-1)	Quantity (Number of units) (D)	Value, f.o.b. plant (E)			B-3	B-4
					Mil- lions	Thou- sands	Ex- cess		
4	FUEL FIRED INDUSTRIAL FURNACES AND OVENS, METAL-PROCESSING	Metal melting, including blast furnaces and cupolas	35672 11	25		\$			XX
5		Metal processing and heat treating (such as annealing, hardening, carburizing, and porcelain enameling furnaces)	35672 21	15			\$		XX
6		Industrial ovens	35672 41	95			\$		XX
7		Hot rolling, forging, forming, and extruding	35672 61	75			\$		XX
8	INDUCTION AND DIELECTRIC HEATING EQUIPMENT, AND PARTS, ATTACHMENTS AND COMPONENTS	Induction furnaces and heating equipment							
9		Radio frequency type, including spark gap	35673 13	65			\$		XX
10		Line and motor-generator set frequency types	35673 15	15			\$		XX
11		Dielectric heating equipment (corresponds to Code 3567331 on Census Annual Form MA 36N, Selected Electronic and Associated Products for 1963)	35673 31	85			\$		XX
12		Other electrical equipment for industrial use, except soldering irons							
		Industrial electric heating units and devices (except heating units for electric furnaces)							
		Tubular heaters	35673 51	65			\$		XX
		All other industrial electric heating units and devices (include strip, space, and ring heaters; water and oil immersion heaters; glue and compound pots, etc.)	35673 59	95			\$		XX



13		Parts, attachments, and components for industrial furnaces and ovens, including electric heating units (sold separately)	35673 91 25						XX
14	Electric nonmetallic processing industrial furnaces and ovens, including kilns and lehrs		35595 91 72				\$		XX
15	Fuel fired kilns (cement, wood, and chemical processing)		35595 92 52				\$		XX
16	Other nonmetallic processing industrial furnaces and ovens, including kilns and lehrs		35595 33 82				\$		XX
17	ALL OTHER PRODUCTS MADE IN THIS ESTABLISHMENT	Describe and report separately for each product whose value was \$50,000 or more and not listed above. (Specify unit of measure for quantity.) For all remaining products describe and report a single total value.					\$		XX
18							\$		XX
19							\$		XX
20							\$		XX
21	CONTRACT WORK	Receipts for work done for others on their own materials. (Describe products worked on and kind of work)	93000 00 85				\$		XX
22	MISCELLANEOUS RECEIPTS	Sales of scrap and refuse	99980 13 86				\$		XX
23		Receipts for repair work	99980 61 76				\$		XX
24		Receipts for installation (or construction of products of this establishment) (See instructions on Page 6 for reporting of installation costs in Items 2, 3, 5, and 18)	99980 31 06				\$		XX
25		Other miscellaneous receipts	99980 98 96				\$		XX
26	RESALES	Sales of products bought and resold without further manufacture, processing or assembly in this establishment. (The cost of such items should be reported in Item 5b.)	99989 00 66				\$		XX
27	TOTAL (Sum of figures on Lines 1-26, Column (E))		77000 00 88				\$		XX

Please complete form, including Item 13, and sign certification on Page 6

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**ITEM 19****FACTORY AND FIELD ASSEMBLY OF INDUSTRIAL FURNACES AND OVENS**

Page 6

Report the 1963 value of shipments for field and factory assembly of industrial furnaces and ovens reported in Item 18, Column (E), Lines 1-16. (See example on Page 4, Item 18 (Instructions), for reporting value of shipments in Column (C).)

Line No.	Industrial furnaces and ovens (A)	Code (B)	Value of shipments (C)	
			Millions 000	Thousands 000
1	Field assembled	44	\$	
2	Factory assembled	55	\$	

**ITEM 20****SELECTED METALWORKING AND RELATED OPERATIONS PERFORMED IN THIS ESTABLISHMENT DURING 1963**

**Section A** — Were any of the specified metalworking operations listed below performed in this establishment in 1963?

Key	Yes	No
	9-1	9-2
	<input type="checkbox"/> 20	<input type="checkbox"/> 1 <input type="checkbox"/> 2

(Check one box)

**Section B** — If "Yes," indicate in Column (C) by checking appropriate boxes, which of the specified operations were performed in this establishment during 1963. A check should be entered either in the "Yes" box or "No" box for each operation. Where the "Yes" box is checked, show in Column (D) the approximate number of production workers on all shifts usually engaged in the specified operation.

Line number	Operation (A)	9	9-1	9-2		9-3
		Census Code (B)	Was this operation performed in this establishment during 1963? (C)		Number of production workers (on all shifts) usually employed when operated (estimate if necessary) (D)	
Yes	No					
1	Machine shop	09	<input type="checkbox"/> 1	<input type="checkbox"/>		
2	Plate or structural fabrication	12	<input type="checkbox"/> 1	<input type="checkbox"/>		
3	Stamping, blanking and forming of metals	13	<input type="checkbox"/> 1	<input type="checkbox"/>		
4	Painting, lacquering and enameling on metals	14	<input type="checkbox"/> 1	<input type="checkbox"/>		

**ITEM 21**

Not applicable to this form.

## REMARKS

PERIOD OF REPORT	This report covers the period from _____ to _____		
ITEM 22	Name of person to be contacted regarding this report	Address	Telephone No.
ITEM 23	<b>CERTIFICATION</b> —This report is substantially accurate and has been prepared in accordance with instructions.		
	Name of company	Address	
	Signature of authorized official	Title	Date

## Supplemental Instructions

## The following instructions supplement the "General Instructions to Manufacturers for Preparing Reports"

## INSTALLATION (OR CONSTRUCTION) OF PRODUCTS OF YOUR OWN MANUFACTURE

(These instructions apply to companies engaged in installing or erecting their own manufactured products)

**Where your product is installed or erected by a labor force separate from the regular force attached to your manufacturing establishment, do not include installation costs.**—The separate labor force may consist either of a distinct group of your employees not attached to your manufacturing plant, or of local labor hired by you in the field, or a combination of both of these. This labor force should be omitted from the sections on employment and payrolls (Items 2 and 3); the value of the installation services should not be included in the section on products shipped (Item 18); and, the amounts reported for cost of materials, etc. (Item 5), should be restricted to factory operations. However, include in Items 2g and 3b engineering and supervisory personnel on your regular plant payroll who may be engaged in installing or testing your products. If your records do not provide exact figures to serve as the basis for segregating these installation costs, carefully prepared estimates will be acceptable.

**When your product is installed or erected by the regular labor force of your manufacturing plant, operating out of the plant itself, installation costs and the value of installation services should be included.**—In installations of this type the employees will not be a separate group of workers located away from the premises of the manufacturing plant.

Include these workers engaged in installing your products in Items 2 and 3, "Employment and Payrolls 1963."

Receipts for installation services should be reported separately on Line 24, Item 18.

Do not include these receipts in the value of industrial furnaces and ovens as reported on Lines 1-16, Item 18.

If your records do not provide exact figures on the value of installation work, carefully prepared estimates will be acceptable.

In no case should installation costs (or the value of the service) be included in your report where the installing or erecting is performed by a separate company, whether the services of that company have been contracted for by your customer or by yourself.

**Please state in the Remarks Section of this form whether you install or erect your manufactured products.**—If you do such installing or erecting, you should further indicate whether or not the installation costs and value of such services are included in your report (using the above instructions as the basis for reporting).



## 1963 CENSUS OF MANUFACTURES

## REPORTING INSTRUCTIONS

*In all correspondence with the Census Bureau, please include the 11-digit file number which appears in the address box of the report form. High-speed electronic equipment will be used to identify both the correspondence and the reports in the 1963 Economic Censuses. If your correspondence does not include the Census file number, it will be returned for the addition of that number. Address all correspondence to JEFFERSONVILLE CENSUS OPERATIONS OFFICE, 1208 East 10th Street, Jeffersonville, Indiana.*

*Please do not mark or mar the two lines of symbols above the address on each form. These symbols or rectangles which are unique to each establishment will be photographed and used to record mechanically the receipt of your report form.*

*As you complete the reports for each establishment, please enter the 11-digit file number at the top of the odd numbered pages as requested.*

This booklet is provided to assist you in filling out the enclosed Census of Manufactures form(s) MC19A through MC39L. Please read these instructions and those appearing on the individual report forms for each item before entering your figures.

#### A. Who Should Report?

The Census of Manufactures reports are required by an Act of Congress (13 U.S.C.). The reports submitted are confidential and may be seen only by sworn Census employees. They may not be used for purposes of taxation, investigation, or regulation. Copies retained in your files are also immune from legal process.

Every concern is required to submit a separate Census report for each of its manufacturing establishments in the United States, the Virgin Islands, and Guam. Enterprises with more than one establishment must submit a separate report for each establishment operated during all or any part of 1963. Reports should be returned to the Jeffersonville Census Operations Office as shown on the enclosed envelope.

Based on Census Bureau records, a report form is provided for each establishment which your company operated in 1963. If you have not received sufficient forms to cover all the manufacturing establishments operated by your company, write for additional copies. Be sure to describe the type of activity carried on at the establishments for which you request additional forms.

#### 1. What Is a Manufacturing Establishment?

For purposes of the Census, a manufacturing establishment is defined as a single physical location where manufacturing operations are performed; for example, a factory, mill, or plant. Since the information reported will be summarized to totals for each industry, State, county and standard metropolitan statistical area, separate reports are required for different physical locations even though the establishments may be engaged in the same line of manufacturing.

If your company operates two or more units in distinctly different lines of manufacturing at the same location, you should also file a separate establishment report for each unit, provided separate records are maintained or substantially accurate reports for these separate activities can be prepared. It is not necessary to file separate reports for departments or organizational subdivisions within an establishment.

In completing your reports, a limited amount of prorating or estimating is acceptable when book records are not readily available.

#### 2. How To Report for Establishments not in Operation During 1963?

If any of your company's manufacturing establishments were not in operation at all during 1963, you should nevertheless return the report for each such establishment with a notation as to its status in Item 12 "Changes in ownership or operation of the establishment." If a manufacturing location was not in production, but had custodial employees, maintained inventories, or made shipments during the year, the information should be reported in the appropriate section of the report form.

#### B. What Activities Should Be Reported?

Each report should cover all the activities (manufacturing, fabricating, processing, and assembling) conducted within the establishment. The reported figures should also include activities such as the maintenance of plant and equipment, receiving, shipping, warehousing, storage, research, record keeping, health, safety, cafeteria, and other services, when carried on at the same physical location by the manufacturing establishment. The manufacturing establishment reports should exclude sales branches, sales offices, research laboratories, retail stores, mining activities, and general administrative offices, if they are operated as separate establishments. However, separate Census of Business, Census of Mineral Industries, or Central office or auxiliary reports should be submitted for each of these establishments.



Please note that establishments engaged in the activities listed below are considered to be manufacturing for the purposes of this Census:

Apparel jobbing and contracting  
Assembling from purchased components  
Commission processing of materials owned by others  
Job casting, stamping, machinery  
Lapidary work  
Logging camps and logging  
Machine shops, including those operating on a job order basis  
Manufacturing and delivering ready-mixed concrete  
Milk pasteurizing and bottling  
Plating, galvanizing, polishing materials owned by others etc.  
Poultry dressing  
Printing  
Publishing: Book, magazine, periodical, etc.  
Rebuilding on a factory basis  
Sawmills  
Seafood, fresh packaged or frozen  
Ship and boat repairing  
Wood preserving

#### C. What Period Should Each Report Cover?

Each report should cover the calendar year 1963. If your book records are not on a calendar year basis, carefully prepared estimates will be acceptable. If reporting on a calendar year basis will involve considerable additional costs, and your fiscal year covers at least 10 months of calendar year 1963 (i.e., ends between October 31, 1963 and February 29, 1964), you may report on a fiscal basis. However, all employment, payroll, and man-hour figures should relate to the calendar year rather than the fiscal year. (These calendar year payroll records should be available from your tax records.)

In the certification, the dates should show the exact period which the report covers. Thus, if an establishment began to operate or ceased to operate within the year, the dates should span only that part of the year during which the plant was in operation. If the ownership changed during the year, complete the report only for that part of 1963 in which your company owned and operated the establishment. Report in Item 12 the appropriate information on changes in ownership or operations.

#### D. How Should Multiple Establishment Companies Determine Transfer Values of Products and Materials from One Establishment to Another ("Interplant Transfers")?

One of the important statistical measures of manufacturing activity is "value added by manufacture," which is derived by the Census Bureau from the figures reported for value of shipments, cost of materials and inventories.

In order for statistics on value added and other subjects to be comparable from industry to industry or area to area, it is necessary that the operations of each establishment of a multiple establishment organization be reported as though the establishment were a separate "economic" unit. This means that the value of interplant transfers within a company should include, in addition to

direct costs of production, a reasonable proportion of "all other costs (company overhead) and profits." The establishments receiving such transfers should report them as materials consumed (or inventories of materials, etc.) at the same value plus costs of freight and other direct handling charges. (See Item 5.)

#### ITEMS ON THE REPORT FORM

##### Item 1. (See instructions on Form.)

Item 2. Number of employees.—(You may follow the definition of employees specified by your State Employment Security Agency.)—Report employees at the establishment who worked or received pay for any part of the pay period (preferably one week) ending nearest the 15th of the specified months (i.e., March, May, August, and November of 1963 for "production workers" and March only for "all other employees"). Include all persons on paid sick leave, paid holidays, and paid vacation during these pay periods; exclude members of armed forces and pensioners carried on your active rolls. Include officers at this establishment, if a corporation; if an unincorporated concern, exclude proprietor or partners.

Items 2e and 2f.—Divide the total on Line 2e by FOUR and enter the result on Line 2f; divide by FOUR even if the establishment did not operate in all four periods.

Item 3. Payrolls. (You should follow the definition of salaries and wages that is used for calculating the withholding tax.) Report the gross earnings paid in calendar year 1963 to employees on the payroll at the establishment prior to such deductions as employee's Social Security contributions, withholding taxes, group insurance premiums, union dues, and savings bonds. Include in gross earnings commissions, dismissal pay, pay bonuses, vacation and sick-leave pay, and the cash equivalent of compensation paid in kind. Include salaries of officers of this establishment, if a corporation; if an unincorporated concern, exclude payments to proprietor or partners. Exclude payments to agricultural employees, fishermen, members of armed forces, and pensioners carried on your active payroll.

Item 4. Plant Man-Hours of Production Workers, by Quarter.—"Plant man-hours" of production workers are designed to measure the over-all activity of the plant during each quarter. The figures should include all man-hours worked or paid for, except hours paid for vacations, holidays, or sick leave. If an employee elects to work during the vacation period, report only actual hours worked by such employee. Overtime hours should be reported as actual hours worked, not straight-time equivalent hours.

Item 5. Cost of Materials, Fuels, Electricity and Contract Work.—The entries in this item are used by the Census Bureau to calculate the 1963 value added by manufacture. The figures reported, therefore, should represent the total cost of materials, supplies, semi-finished goods, fuels, etc., actually consumed or put into production during 1963.

If your records do not show the amounts actually consumed or put into production during 1963, the reported figures may be derived from purchase and other records. Cost of purchases may be used if these do not differ significantly from the amounts actually used. However, if



consumption of any major item differs significantly from purchases, the amount used may be estimated by adding beginning inventories to the amounts purchased and subtracting from this total the cost of goods on hand at the end of the year.

Cost is delivered cost and should be the amount actually paid or payable after discounts and should include freight and other direct charges incurred by the establishment in acquiring materials and supplies consumed. The cost figures for consumption should represent receipts from all sources, i.e., amounts purchased from other establishments, withdrawn from inventories, or obtained from other establishments of the same company. However, if intermediate products were made in this establishment in 1963 and incorporated into other products also made in this establishment, the reported figures should only include the costs of the materials from which the semi-finished items were made.

For materials, parts, and supplies received from other establishments of your company, cost should be checked against the values reported for the plant producing and transferring the codes (see Item D above). Freight and other direct handling charges should be added.

**Item 5a. Cost of Materials, Parts, Components, Containers, Supplies, Etc., Consumed.**--The delivered cost figures reported in Item 5a should cover all raw materials, containers, scrap, and supplies, etc., which were: (1) put into production, (2) used as operating supplies, (3) used in repair and maintenance. Include also cost of materials owned by you but consumed by other companies to make products for your establishment under contract. Amounts paid to other companies for such contract work should be reported on Line 5e and should include freight in and out. If semi-finished goods, parts, or components were produced during 1963 and incorporated into finished products at the same plant during 1963, include the cost of raw materials used rather than the value of the intermediate products.

Include only physical goods used or put into production. Exclude services used or overhead charges. Exclude cost of such services as advertising, telephone, telegram and cable, insurance, developmental and research services or engineering, management, marketing and other professional consultants, etc., unless charges for such services are included in the prices paid for materials. Exclude also such overhead items as depreciation charges against plant and equipment; rent and rental allowances, interest payments, royalties, and patent fees. Exclude materials, supplies, machinery, and equipment which were used in the construction of new structures or additions to your plant, or new machinery and equipment, and which are chargeable to fixed assets accounts. Exclude products purchased and resold without further manufacture or processing or assembly; their costs should be included in Item 5b.

**Item 5b. Cost of Goods Sold Without Further Manufacture, Processing or Assembly in this Establishment.**--Report the cost of all products bought and resold in the same condition as when purchased and not made part of another product manufactured by this establishment. (Total sales value of all products resold is to be reported in Item 18 on the line for "Resales.")

**Item 5c. Fuel Consumed.**--Report the total amount actually paid or payable during 1963 for all fuels consumed for heat, power, or the generation of electricity. Do not include the estimated cost of fuels, such as sawdust or blast furnace gas, produced as a byproduct of your manufacturing activities. Include anthracite and bituminous coal, coke, natural and manufactured gas, fuel, oil, liquefied petroleum gas, gasoline, and all other fuels including purchased steam. For selected industries, such as Carbon Black, Blast Furnaces and Coke Ovens, special reporting instructions on the report form provide that the above fuel types should be reported as materials in Item 5a rather than as a fuel Item 5c.

**Item 5d. Purchased Electric Energy.**--Report the total amount actually paid or payable for electric energy purchased during 1963 from other companies, or received from other establishments of your company. Exclude the value of electricity generated and used at this establishment.

**Item 5e. Cost of Work Done for You by Others on Your Own Materials (Contract Work).**--If any work was done by others on materials furnished by your establishment, report the total payments made during 1963 for such work, including freight out and in. Exclude the cost of materials worked on, which should be included in Item 5a.

**Item 6. Inventories of this Establishment.**--See report form.

**Item 7. Capital Expenditures for This Establishment (Exclude Expenditures for Land).**--Capital expenditures during 1963 may be determined by the following computation: The cost of additions completed during the year, plus construction-in-progress at the end of the year, minus construction-in-progress at the beginning of the year.

**Item 7a. New Structures and Additions to Plant.**--Report total expenditures during 1963 for new construction, (whether constructed on contract or by your own forces) major alterations, capitalized repairs, and improvement of buildings (including all new elevators, cranes, heating and ventilating equipment, essentially a part of the buildings), other fixed structures (such as blast furnaces, brick kilns, fractionating towers, shipways, and similar types of structures), and site improvements (such as roads, docks, tracks, parking lots, fences, utilities.)

**Item 7b. New Machinery and New Equipment.**--Report total expenditures at this establishment for new production machinery and equipment and other new machinery and equipment. Include replacements as well as additions to capacity. Include the value of improvements and capitalized repairs to machinery and equipment transferred from other establishments of this company or produced and used at this establishment. Include all new motors, lathes, punch presses and similar machinery and equipment for use in production, as well as all new office machines and fixtures, furniture, cafeteria and dressing room furnishings, automobiles and trucks, and other similar equipment.

**Item 7c. Used Plant and Used Equipment Acquired from Others.**--Report total expenditures at this establishment for old or existing plants and for second-hand equipment acquired from others (including the U.S. Government). Include at approximate market value machinery or equipment transferred from other plants of your company.

Item 8. Quantity of Electricity.—All quantities for electricity preferably should be reported in thousands of kilowatt hours. Please be careful to enter your figures in the CORRECT COLUMNS.

Item 8a. Purchased Electricity.—Report the quantity for which cost is reported in Item 5d.

Item 8b. Generated Electricity.—Enter the total quantity of electric energy generated in this plant (gross less generating station use) during 1963.

When totals are reported on this line, data relating to the activity of the power stations would also be included in other sections of this report. For example, the number of employees assigned to the power station, their wages and man-hours should be included in the figures reported in Items 2, 3, and 4; and the cost of fuels used to generate electricity, in Item 5c.

Item 8c. Electricity Sold or Transferred.—Enter the quantity of electric energy, which was also included in Items 8a and 8b but which was sold to other companies or transferred, to other manufacturing or non-manufacturing establishments of your company.

Items 9-11.—Not applicable to these forms.

Items 12-15.—See Report forms.

Item 16. Industrial Water Use During 1963 (See Instructions on Forms).—A selected group of establishments, consisting mainly of those consuming large quantities of water, will be required to supply the following additional detail on water consumed during 1964: total intake during the year distributed by source and type of use; quantity discharged; quantity recirculated; and quantity treated.

Items 17-23.—(See instructions on form.)

Period of Report.—Enter the month and day of the beginning and the end of period your report covers. If a calendar year report: "From January 1 to December 31, 1963;" if a fiscal year, specify which (such as "From December 1, 1962 to November 30, 1963).". If a part year report is submitted because the establishment was not in operation or under your company's control for the entire year, specify the actual period covered: For example, January 1, 1963 to August 15, 1963 or June 1 to December 31, 1963.




U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS		FORM MA-100		ANNUAL SURVEY OF MANUFACTURES		(For 1963 this is the front sheet of the 1963 Census of Manufactures form)					
<p><b>CONFIDENTIAL</b> - Response to this inquiry is required by Act of Congress (13 U.S.C.). The report you submit to the Census Bureau is confidential and may be seen only by sworn Census employees. It may not be used for purposes of taxation, investigation, or regulation. Copies retained in your files are also immune from legal process.</p> <p>In correspondence pertaining to this report please refer to the 11-digit file number in the box <b>V</b> above your name.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 2px;">V</div> <div style="border: 1px solid black; padding: 2px;">1</div> </div>				<p>(Please correct if mailing address has changed)</p>				<p>1962</p> <p>1963</p> <p>1964</p>		<p>Key</p> <p>0-1</p> <p>0-2</p> <p>0-3</p> <p>0-4</p> <p>0-5</p> <p>0-6</p> <p>0-7</p> <p>0-8</p>	
<p><b>COMPLETE EVERY ITEM (Enter "0" when appropriate)</b></p>				<p><b>ITEM 2</b></p> <p><b>NUMBER OF EMPLOYEES</b></p>		<p><b>ITEM 3</b></p> <p><b>PAYROLLS (\$000)</b></p>		<p><b>ITEM 4</b></p> <p><b>PLANT MAN-HOURS OF PRODUCTION WORKERS, BY QUARTER (\$000)</b></p>		<p><b>ITEM 5</b></p> <p><b>COST OF MATERIALS, FUELS, ELECTRICITY, CONTRACT WORK (\$000)</b></p>	
<p><b>A. NAME OF ESTABLISHMENT</b></p>				<p><b>B. PHYSICAL LOCATION OF ESTABLISHMENT</b> on December 31, 1963. (Your answers to this item should relate to the ACTUAL PHYSICAL LOCATION of this establishment which may be different from the mailing address.)</p>		<p><b>(1) Street and number at establishment location *</b></p>		<p><b>(2) Place (Check type of place and enter name)</b></p>		<p><b>(3) Type (Check first applicable one)</b></p>	
<p><b>C. DUE 30 DAYS AFTER RECEIPT</b></p> <p><b>PLEASE COMPLETE EVERY ITEM TO AVOID CORRESPONDENCE</b></p> <p><b>BE SURE TO READ INSTRUCTION MANUAL BEFORE</b></p> <p><b>COMPLETING REPORT</b></p>				<p><b>Number of production workers during pay period ended nearest 15th of -</b></p> <p>a. March</p> <p>b. May</p> <p>c. August</p> <p>d. November</p>		<p>a. Production workers' wages</p> <p>b. All other employees' salaries and wages</p> <p>c. TOTAL PAYROLLS (Sum of lines a and b)</p> <p>a. January through March</p> <p>b. April through June</p> <p>c. July through September</p> <p>d. October through December</p> <p>e. TOTAL PRODUCTION WORKERS' MAN-HOURS (Sum of lines a-d)</p> <p>a. Cost of materials, parts, components, containers, etc., consumed</p> <p>b. Cost of products bought and resold as such</p> <p>c. Cost of fuels consumed</p> <p>d. Cost of purchased electricity</p> <p>e. Cost of contract work done for you by others on your materials</p> <p>f. TOTAL COST (Sum of lines a-e)</p>		<p>1-1</p> <p>1-2</p> <p>1-3</p> <p>1-4</p> <p>1-5</p> <p>1-6</p> <p>1-7</p> <p>1-8</p> <p>2-1</p> <p>2-2</p> <p>2-3</p> <p>2-4</p> <p>2-5</p> <p>2-6*</p>			





## ITEM 9A - VALUE OF PRODUCTS SHIPPED AND OTHER RECEIPTS (\$000)

Additional product classes of this establishment (Describe)	Product Class Code (See manual) 5	1962	1963	1964
a. _____				
b. _____				
c. _____				
d. _____				
e. TOTAL  (Transfer to Item 9, Line h)				

9	9-1	333	End of 1962	End of 1963	End of 1964	Key
			9-2	9-3		

a. Gross (book) value of fixed assets as of end of the year (original cost of buildings, structures, machinery, equipment, and other depreciable fixed assets). (See Instruction Manual)

b. Rental payments during year

Does this establishment use any rented or leased buildings, structures, or transportation, production or office equipment in its operations? . . . . . 1 ☐ Yes 2 ☐ No  
(If "Yes," please complete Lines (1) and (2) below)

(1) Rental payments (or equivalent charges) for use of buildings and structures (exclude payment for land).

(2) Rental payments (or equivalent charges) for use of transportation, production, and office equipment by this establishment.

NOTE: If rental payments are not made directly from the establishment's accounts but are handled centrally at a company or division level, please report the share of overhead or estimate the share of rental charges appropriate to the operation of this establishment.

(Please check proper box and furnish information requested below for each year)

a. Did the physical location of the establishment change since 1963?  
(If "Yes," please report the new location in Item 14)

b. If the answer to Item 1E(2) (Page 1) was "No," did the company have any plants under construction but not yet in operation?

c. Changes in ownership or operation of this establishment during the year  
1. Purchased (Enter date, name, and address of former owner in Item 14)

2. Sold (Enter date, name, and address of purchaser in Item 14)

3. Went out of business (Specify date in Item 14)

4. Reorganized (Describe in Item 14, e.g., partnership change or change in corporate status)

5. Started new business (no previous owner)

6. Remained the same as in the previous year

ITEM 11  
VALUE OF  
FIXED  
ASSETS  
AND  
RENTAL  
PAYMENTS  
(\$000)

ITEM 12  
CHANGE IN  
PHYSICAL  
LOCATION OF  
ESTABLISH-  
MENT  
(FACTORY  
OR MILL);  
COMPANY  
ORGANIZA-  
TION; AND  
CHANGES IN  
OWNERSHIP  
OR OPERA-  
TION OF  
ESTABLISH-  
MENT

ITEM 13 CHECKS TO ASSURE A COMPLETE AND ACCURATE REPORT		The Census Bureau reviews your report for omissions, inconsistencies, and unusual ratios. To save you future correspondence about these problems, please make the following checks before returning your report: (a) Review the report carefully to see that no items are omitted for the year being covered. (b) Calculate the four "reasonableness" checks described below, entering the figures for each, and review the results. (c) Correct your report for any errors you find; explain unusual figures in Item 14.			
		"Reasonableness" checks	Calculation required for each check	Resulting figures for the year --	
				1963	1964
		1. Average hourly wages per production worker	Item 3a (Production workers' wages) ÷ Item 4e (Total man-hours)	\$	\$
		2. Hours worked per year per production worker	Item 4e (Total man-hours) x 1000 ÷ Item 2f (Average number of production workers)	Hrs.	Hrs.
		3. Salaries and wages per dollar of shipments	Item 3c (Total payroll) ÷ Item 9f (Total value of shipments)	\$	\$
		4. Materials cost per dollar of shipments	Item 5f (Total materials cost) ÷ Item 9f (Total value of shipments)	\$	\$
		5. Is the total for value of shipments (Item 9f) greater than the sum for payroll (Item 3c) plus total cost of materials, etc. (Item 5f)? . . . . . <input type="checkbox"/> Yes <input type="checkbox"/> No (If "No," please explain in Item 14)			
ITEM 14 REMARKS PERTAINING TO THE REPORT FOR THE SPECIFIED YEAR		<div>1963</div> <div>1964</div>			
ITEM 15 CERTIFICATION		Name of person to contact if questions arise regarding this report		Address (Revise when necessary)	
1963 →		CERTIFICATION - This report is substantially accurate, and covers -- Period covered From To Signature of authorized person Title Date			
1964 →		From To Signature of authorized person Title Date			
		Telephone No.			



FORM MC-36Z  
(3630) U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS

## 1963 CENSUS OF MANUFACTURES

## ELECTRICAL MACHINERY, EQUIPMENT AND SUPPLIES

## PLEASE NOTE:

- A. The Census Bureau reviews your report for omissions, inconsistencies, and unusual ratios. Incomplete and inaccurate answers will result in correspondence which is both costly and time consuming. Be sure to complete every item. Enter "0" in Items B-D, if appropriate.
- B. If book records are not available, reasonably accurate estimates for most items are acceptable for the statistical purposes of this survey.
- C. Please complete and return this form in the envelope provided to the Jeffersonville Census Operations Office, Jeffersonville, Indiana. If filing by due date causes an undue burden, a request for extension should be directed to that office.

- D. PLEASE READ INSTRUCTIONS BEFORE COMPLETING REPORT
- Figures for dollars, (Items C, D, and E) should be rounded to THOUSANDS. If you wish you may report to the nearest unit. In either case, please be careful to enter your figures in the CORRECT COLUMNS. (See example below)

EXAMPLE	If the payroll is \$1,125,628.28:	Preferred method		Acceptable method	
		Mil- lions	Thou- sands	Dol- lars	Cen- t
		000	000	000	XX
		\$ 1	126		XX
		\$ 1	125	628	XX

## ITEM A - GENERAL INFORMATION

1. NAME OF ESTABLISHMENT
2. LOCATION OF ESTABLISHMENT
- a. Street and number at establishment location
- b. Place (City, Village, Town, Township)
- c. Is the establishment within the legal boundary of the place reported in (b) above?..... ☐ Yes ☐ No
- d. County
- e. State

3. FORM OF OWNERSHIP AT END OF 1963 (Check one)
- 1 ☐ Individual proprietor
- 2 ☐ Partnership
- 0 ☐ Corporation (Do not include any form of cooperative association)
- 8 ☐ Cooperative association (corporate or noncorporate)
- 9 ☐ Other (Specify) \_\_\_\_\_

CONFIDENTIAL - Response to this inquiry is required by Act of Congress (13 U.S.C.). The report you submit to the Census Bureau is confidential and may be seen only by sworn Census employees. It may not be used for purposes of taxation, investigation, or regulation. Copies retained in your files are also immune from legal process.

In correspondence pertaining to this report please refer to the 11-digit file number in the box above your name.

MC-36Z (3630)

(Please correct if mailing address has changed)

## ITEM E - VALUE OF ALL PRODUCTS SOLD OR SHIPPED, AND OTHER RECEIPTS

1. Please describe the work that is done at this establishment (plant)
- Examples: Make mica parts for radios; assemble electric sockets.

2. Not applicable to this form.

## 3. PRODUCTS AND SERVICES

Line No.	8 Report the value of products made in this establishment in 1963. (If your products are not printed in the list below, describe them on the blank lines, and enter the amount sold or shipped.) (See instructions on reverse side)	8-1XX Census product code (B-1)	8-4 Value of products shipped and other receipts	
			Mil- lions	Dol- lars
1	Test equipment for testing electrical, radio, and communication circuits, and motors	36112 20	91	\$
2	Electrical measuring instruments, except integrating	36113 30	61	\$
3	Switchgear and switchboard apparatus	36130 00	37	\$
4	Industrial controls	36220 99	48	\$



#### 4. FEDERAL SOCIAL SECURITY IDENTIFICATION NUMBER

Enter identification number used for this establishment (as shown on Employer's Quarterly Federal Tax Return, Treasury Form 941).

#### ITEM B - NUMBER OF EMPLOYEES (Exclude proprietor and partners)

Report the total number of paid employees during pay period ended nearest the 15th of:

1. March 1963

2. May 1963

3. August 1963

4. November 1963

#### ITEM C - PAYROLLS (Exclude payments to proprietor and partners)

Salaries and wages paid in 1963

TOTAL

#### ITEM D - COST OF MATERIALS, PARTS, SUPPLIES, FUELS, ELECTRICITY, AND CONTRACT WORK

Cost of materials, parts, components, supplies, containers, fuels, and electricity consumed in 1963. (Include the cost of work done for you by others on your own materials, and the cost of products bought and resold without further manufacture, processing, or assembly.)

#### FOR CENSUS USE ONLY

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

Total number of paid employees

Key

1. March 1963

2. May 1963

3. August 1963

4. November 1963

#### ITEM C - PAYROLLS (Exclude payments to proprietor and partners)

Salaries and wages paid in 1963

TOTAL

#### ITEM D - COST OF MATERIALS, PARTS, SUPPLIES, FUELS, ELECTRICITY, AND CONTRACT WORK

Cost of materials, parts, components, supplies, containers, fuels, and electricity consumed in 1963. (Include the cost of work done for you by others on your own materials, and the cost of products bought and resold without further manufacture, processing, or assembly.)

#### FOR CENSUS USE ONLY

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

5	Small household electric appliances (Specify kind)	36343 10	13	\$	XX
6	Parts and attachments for small household electrical appliances	36344 99	23	\$	XX
7	Portable lamps (residential - table, floor, wall, etc.)	36427 99	56	\$	XX
8	Current-carrying wiring devices	36430 00	74	\$	XX
9	Noncurrent-carrying wiring devices and supplies, except transmission hardware and conduit	36443 00	02	\$	XX
10	Radio and television broadcast equipment, and closed circuit systems	36622 99	14	\$	XX
11	Electronic components and accessories, including parts for electron tubes (except glass blanks)	36795 00	38	\$	XX
12	Storage batteries, SLI type	36911 99	83	\$	XX
13	All other products (List separately and describe)			\$	XX
14				\$	XX
15				\$	XX
16				\$	XX
17	Receipts for work or services performed by you for others on their materials. (Describe operation performed and product)			\$	XX
18	Miscellaneous receipts (Repair work, installation, sales of scrap, etc.) (Describe)	93000 99	05	\$	XX
19	Sales of products bought and resold without further manufacture, processing or assembly in this establishment. (The cost of such products should be reported in Item D.)	99980 99	76	\$	XX
20		99989 99	86	\$	XX
21	TOTAL (Sum of Lines 1-20)	77000 99	08	\$	XX

CERTIFICATION - This report is substantially accurate and has been prepared in accordance with instructions.

Signature of authorized person

Title

Date



## INSTRUCTIONS

**Item B - Number of Employees**—Report the total number of employees paid during the pay period ending nearest the 15th of the specified months. If an unincorporated business, exclude proprietor and partners from the reported totals.

**Item C - Payrolls**—Report the total paid as wages, salaries, bonuses and commission during 1963. If an unincorporated business, exclude payment to proprietor or partners. The definition of salaries and wages used for calculating the withholding tax may be followed.

**Item D - Cost of Materials, Parts, Supplies, Fuels, Electricity, and Contract Work**—Report the cost of all materials, parts, supplies, and containers consumed during 1963, which were used (a) directly to produce products, (b) as operating supplies, and (c) for repair and maintenance. Include the cost of goods bought for resale, the value for which is reported separately in Item E, Line 20. Include also the cost of fuels and electricity purchased.

The total reported should also include the cost of materials owned by you but processed by other companies which make products under contract for your firm and the cost of such contract work.

**Item E-3 - Value of All Products Sold or Shipped, and Other Receipts**—Enter on Line 21, Column (E), the total receipts from products sold or shipped, or services performed by this establishment during 1963. Account for all receipts of this establishment. Then report separately on Lines 1-12 in Column (E) the value of shipments of each product listed. **Do not combine pre-printed product lines.**

**Lines 13-17**—If some of the products you made in 1963 are not listed, please list each such product on a separate line under "All other products," and enter in Column (E) the 1963 value of shipments.

**Line 20**—Report sales of products which were resold as originally purchased and not used in further manufacturing, processing, or assembling of products made in this establishment.

**After completing this schedule, would you please—**

- (a) Review to see that entries have been made for all applicable items.
- (b) Compare the sum reported for payrolls (Item C) and Materials (Item D) with the total reported in Item E-3, Total Value of Products Shipped and Other Receipts.
- (c) If the sum for Items C and D exceeds the total on Line 21, Item E-3, please explain in "Remarks."

Remarks

**PLEASE NOTE:** In all correspondence with the Census Bureau, please include the 11-digit file number which appears in the address box of the report form. High-speed electronic equipment will be used to identify both the correspondence and the reports in the 1963 Economic Censuses. If your correspondence does not include the Census file number it **will be returned** for the addition of that number. Address all correspondence to JEFFERSONVILLE CENSUS OPERATIONS OFFICE, 1201 East 10th Street, Jeffersonville, Indiana.

Please **do not mark or mar** the two lines of symbols above the address on each form. These symbols or rectangles which are unique to each establishment will be photographed and used to record mechanically the receipt of your report form.

FORM EC-42  
(10-16-65)

BUREAU OF THE CENSUS  
1963 CENSUS OF MANUFACTURES

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
IDENTIFICATION NUMBER												FIELD 1 SERIAL NUMBER		FIELD 2 FORM RECODE		FIELD 3 HISTORIC IND. SUBINDUSTRY CODE		FIELD 4 STATE COUNTY CITY CODES		FIELD 5 TRACT CODE		FIELD 6 ASM AND SOURCE		FIELD 7 SIGNALS I		FIELD 8 SIGNALS II		XXXXXXXXXXXXXX																																																			
000000000000												MARCH		MAY		AUGUST		NOVEMBER		SUM		AVERAGE NUMBER		ALL OTHER EMPLOYEES MARCH		TOTAL NUMBER OF EMPLOYEES																																																					
111111111111												PRODUCTION WORKERS		ALL OTHER EMPLOYEES		TOTAL		JANUARY - MARCH		APRIL - JUNE		JULY - SEPTEMBER		OCTOBER - DECEMBER		TOTAL																																																					
222222222222												MATERIALS, PARTS, ETC.		RESALES WITHOUT FURTHER MANUFACTURE		FUELS CONSUMED		PURCHASED ELECTRICITY		CONTRACT WORK BY OTHERS		TOTAL		22222222		22222222																																																					
333333333333												FINISHED PRODUCTS		WORK-IN-PROCESS		MATERIALS, SUPPLIES, ETC.		TOTAL		FINISHED PRODUCTS		WORK-IN-PROCESS		MATERIALS, SUPPLIES, ETC.		TOTAL																																																					
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684742

FORM EC-43  
(10-16-65)

BUREAU OF THE CENSUS  
1963 CENSUS OF MANUFACTURES

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
IDENTIFICATION NUMBER												FIELD 1 SERIAL NUMBER		FIELD 2 FORM RECODE		FIELD 3 HISTORIC IND. SUBINDUSTRY CODE		FIELD 4 STATE COUNTY CITY CODES		FIELD 5 TRACT CODE		FIELD 6 ASM AND SOURCE		FIELD 7 SIGNALS I		FIELD 8 SIGNALS II		XXXXXXXXXXXXXX																																																			
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111111111111												13 14 15 16 17 18 19 20 21		22 23 24 25 26 27 28 29 30		31 32 33 34 35 36 37 38 39		40 41 42 43 44 45 46 47 48		49 50 51 52 53 54 55 56		57 58 59 60 61 62 63 64		65 66 67 68 69 70 71 72		73 74 75 76 77 78 79 80																																																					
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684743



FORM MC-D3  
(12-24-63)U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS

**1963 CENSUS OF MANUFACTURES**  
**DEPARTMENT OF DEFENSE ESTABLISHMENTS**  
**PRIMARILY ENGAGED IN MANUFACTURING AND**  
**ASSEMBLY AND/OR RESEARCH AND DEVELOPMENT**  
**OWNED AND OPERATED BY**  
**THE DEPARTMENT OF DEFENSE**  
(Includes shipyards)

**INSTRUCTIONS** - This report is to be prepared by those Department of Defense establishments whose primary activities are manufacture and assembly and/or research and development. All shipyards are included.

The information requested is based upon reports now regularly prepared by most such establishments.

**CONFIDENTIAL** - Response to this inquiry is required by Act of Congress (13 U.S.C.). The report you submit to the Census Bureau is confidential and may be seen only by sworn Census employees. It may not be used for purposes of taxation, investigation, or regulation. Copies retained in your files are also immune from legal process.

In correspondence pertaining to this report please refer to the 11-digit file number in the box above your name.

Form MC-D3

**KEEP THIS COPY FOR YOUR FILES**  
**PLEASE COMPLETE AND RETURN THE FORM WHICH**  
**SHOWS YOUR NAME AND ADDRESS**

(Please correct if mailing address has changed)

**ITEM 1 - NAME AND PHYSICAL LOCATION OF ESTABLISHMENT ON DECEMBER 31, 1963****a. Name of establishment**

Your answers to parts b, c, d, e, and f of this item should relate to the ACTUAL PHYSICAL LOCATION of this establishment which may be different from the mailing address.

**b. Street and number at establishment location \***

\* If establishment location cannot be described by street and number, give name and number, if any, of road or highway and sufficient information to locate establishment, e.g. Rt. 25, 3 miles south of Charleaville.

**c. Type and name of place in which located (Check first applicable type and enter name of place.)**

Type	Name of place
<input type="checkbox"/> City	
<input type="checkbox"/> Village or borough	
<input type="checkbox"/> Town	
<input type="checkbox"/> Township	
<input type="checkbox"/> Other (Specify)	

**d. Is this establishment physically located within the legal boundaries of the place named in "c"?**☐ Yes☐ No**e. County in which located****f. State****g. Telephone number of establishment****ITEM 3 - NATURE OF ACTIVITY**

Describe briefly the kind of activity of this establishment.  
If a manufacturing plant, list the three most important products.

ITEM 4 EMPLOYMENT AND PAYROLLS IN CALENDAR YEAR 1963 (Civilian employees only)	Class of employee	Number of civilian employees in 1963					Total wages and salaries of civilian employees (Thousands) (G)	
		At end of month (As reported on Civil Service form SF-113*)				Sum of columns A, B, C, and D (E)		Column E divided by 4 (F)
		March (A)	June (B)	September (C)	December (D)			
	a. Wage Board employees						\$	
	b. All others						\$	
	c. TOTAL CIVILIAN EMPLOYEES (Sum of lines a and b)						\$	
* The number of Wage Board employees (line a) should be the same as reported on line 7 of SF-113. The total (line c) should be the same as reported on line 1 of SF-113.								
ITEM 5 MAN-DAYS OF WAGE BOARD EMPLOYEES BY CALENDAR QUARTER 1963	Enter the total number of man-days of Wage Board employees for each calendar quarter of 1963. Do not include days paid for vacations, holidays, or sick leave.					1963 Quarterly period	Man-Days (Thousands) (A)	Estimated number of man-hours** (Thousands) (B)
						a. January through March		
						b. April through June		
						c. July through September		
						d. October through December		
						e. TOTAL, 1963 (Sum of lines a, b, c, and d)		
** Obtain figure for column (B) by multiplying column (A) by average number of hours per day per Wage Board employees in this establishment .....								



Enter below the specified classes of billings of this establishment for calendar year 1963.			
ITEM 6 BILLINGS BY THIS ESTABLISH- MENT DURING CALENDAR YEAR 1963	Billings for products and services (including progress billings)	Line No.	Value (Thousands of dollars)
	Manufacture and assembly	1	\$
	Construction and conversion	2	\$
	Overhaul, repair and renovation	3	\$
	Alteration and modification	4	\$
	Research and development	5	\$
	Other billings	6	\$
	Total billings for products and services	7	\$
	Increase or decrease in unbilled costs of work in progress	8	\$
	<b>TOTAL EARNED REVENUE</b> —————→	9	\$
ITEM 7 COSTS DURING CALENDAR YEAR 1963	Types of costs incurred	Line No.	Costs (Thousands of dollars)
	Materials, supplies and parts used	1	\$
	Salaries and wages (Same as item 4c, column (G))	2	\$
	Contractual services and other costs	3	\$
	<b>TOTAL COSTS INCURRED</b> —————→	4	\$

**ITEM 8  
CHECKS TO  
ASSURE A  
COMPLETE  
AND  
ACCURATE  
REPORT**

(Please  
complete  
this item  
after you  
have answered  
all items on  
this report.)

The Census Bureau reviews your report for omissions, inconsistencies, and unusual ratios. To save you future correspondence about these problems, please make the following checks before returning your report:

- Review this report carefully to see that no items are omitted.
- Calculate and enter the four "reasonableness" checks (described below), then review the resulting figures.
- Correct your report for any errors you find; explain unusual figures in "Remarks" section.

"Reasonableness" checks	Calculation required for each check	Resulting figures for 1963
(1) Average hourly wages per Wage Board employee	Item 4a, column G (Wages paid Wage Board employees) ÷ item 5e, column B (Total estimated man-hours)	\$
(2) Man-days per year per Wage Board employee	Item 5e, column A (Wage Board man-days in thousands) x 1,000 ÷ item 4a, column F (Average number of Wage Board employees)	Man-days
(3) Wages and salaries per dollar of earned revenue	Item 7, line 2, (Wages and salaries of civilian employees) ÷ item 6, line 9 (Total earned revenue)	\$
(4) Is the total earned revenue (item 6, total) greater than total costs incurred (item 7, total)?	..... <input type="checkbox"/> Yes <input type="checkbox"/> No (If "No," please explain in "Remarks" section.)	

**ITEM 9  
REMARKS  
PERTAINING  
TO THIS  
REPORT**

**PERIOD  
OF REPORT**

This report covers the period from \_\_\_\_\_ to \_\_\_\_\_.

**ITEM 10**

Name of person to be contacted regarding this report

Address

Telephone No.

**ITEM 11**

**CERTIFICATION** - This report is substantially accurate and has been prepared in accordance with instructions.

Name of company

Address

Signature of authorized official

Title

Date



<p><b>FORM MA-175</b> (6-29-64)</p> <p style="text-align: center;">U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS</p> <p style="text-align: center;"><b>REPORT ON SHIPMENTS TO OR RECEIPTS FOR WORK DONE FOR FEDERAL GOVERNMENT AGENCIES AND THEIR CONTRACTORS AND SUPPLIERS IN 1963</b></p> <p style="text-align: center;">(Based on the Total Shipment Figures from the Annual Survey of Manufactures, Census Form MA-100)</p> <p><b>TO:</b> Bureau of the Census, Industry Division Washington, D.C. 20233</p>	<p><b>CONFIDENTIAL</b> - Response to this inquiry is required by Act of Congress (13 U.S.C.). The report you submit to the Census Bureau is confidential and may be seen only by sworn Census employees. It may not be used for purposes of taxation, investigation, or regulation. Copies retained in your files are also immune from legal process.</p> <p><b>ITEM 1</b> - In correspondence about the report for this establishment, please refer to your 11-digit file number below.</p> <p style="text-align: center;">↓</p>	
<p><b>(PLEASE RETURN THIS COPY)</b></p>		
<p><b>ITEM 2</b></p>	<p>Please check the box which describes the 1963 receipts for shipments or other work done in this plant for Federal Government agencies and their contractors and suppliers:</p> <p style="text-align: center;"> <input type="checkbox"/> None                      <input type="checkbox"/> Up to \$100,000                      <input type="checkbox"/> \$100,000 or more         </p> <p>For purposes of this report, such receipts will include payments received by you for work done by you on Federal Government prime contracts as well as the value of materials, components, subassemblies, and services supplied by you to Federal Government contractors and suppliers for use in their performance of Federal Government contracts.</p> <p>If your response to this question was "\$100,000 or more," please complete the form on the reverse side. Otherwise, sign the form in the space provided below and return it.</p>	
<p style="text-align: center;"><b>INTRODUCTORY NOTE</b></p> <p>The Census Bureau is conducting this survey to develop a measure of the level of industrial activity generated by the expenditures made by Federal Government agencies. Special attention is directed toward expenditures made by the Department of Defense (DOD), the National Aeronautics and Space Administration (NASA), and the Atomic Energy Commission (AEC).</p> <p>Industrial activity generated by Federal Government expenditures is being measured in terms of receipts (including value of shipments) for work done, or for value of products shipped to Federal agencies, their contractors, subcontractors and suppliers. For each plant covered by the report such receipts will consist of two kinds of payments. The first is payments received for work done directly for Federal agencies on Government prime contracts. The second is payments received for work done for other Government contractors and suppliers for use in the performance of Federal Government contracts. Subcontract receipts reported will normally be based on payments made for work done on Government subcontracts when subject to the Renegotiation Act of 1951, as amended. These receipts should include the value of materials, components, subassemblies, and services supplied to other plants of the company (interplant transfers) as well as to contractors and suppliers outside the company for use in the performance of contracts. This is in accord with standard Census reporting procedures.</p> <p>This survey is being conducted on an establishment or plant basis. This method of reporting is necessary so that the data reported by each plant may be tabulated by the geographic area in which the work is actually being performed. Additionally, it will permit the data to be classified by appropriate product class and Standard Industrial Classification.</p>		
<p style="text-align: center;"><b>SPECIFIC INSTRUCTIONS</b></p> <p>Except as may be specifically requested, a report should be submitted for each establishment for which you received a preaddressed form. If additional forms are needed, please write to us specifying the address of the establishment for which a blank form is required. If you have any questions about the survey, write to the Bureau of the Census, Washington, D.C., 20233, referring to form MA-175 and to the file number in the upper right-hand corner of the address box. The basic concepts used in this survey (establishment, shipments, receipts, materials consumed, employment, etc.) are the same as those used in the Annual Survey of Manufactures (Form MA-100), and related figures reported on each form should agree.</p> <p><b>Columns (1), (2), and (3)</b> - These entries--lines a through l--should correspond with those entered in item 9 and item 9A for the Product Class Description, the Product Class Code, and the 1963 data column from the related Census form MA-100 for 1963.</p> <p>The three lines "i," "j," and "k" that follow specific product class entries, are in the same position in which they appear on form MA-100. Only "i" is expected to be of particular importance on form MA-175; "i" is an item primarily of interest to manufacturing industries not covered by form MA-175, such as textiles and apparel, coating and engraving, etc.; "k" is used by manufacturers to list the shipments of products they buy and ship without any manufacturing or assembling, usually to round out a product line. Line "j" on the other hand, can be very important in this survey. Receipts for research and development that have not been separately identified on form MA-100 should be reported here. (Note that research and development receipts for certain aerospace activities are to be supplied in lines "a" - "h" in the appropriate class of product (37216, 37223, 37226, 37293, 37294, 19253).) Line "j" would also be used for reporting receipts for installation or testing. Installation or testing costs of more than \$1 million done at other locations should not be reported on the form for the manufacturing plant. Instead, a separate MA-175 form should be filed for each such installation or test site. If you have such cases, it would be desirable to write to the Census Bureau describing the situation before completing the MA-175 forms.</p>		
<p>Name of person to contact regarding this report</p>	<p>Address (Number and street, city, State, ZIP code)</p>	<p>Telephone No.</p>
<p><b>CERTIFICATION</b> - This report is substantially accurate and has been prepared in accordance with instructions.</p>		
<p>Name of company</p>	<p>Address (Number and street, city, State, ZIP code)</p>	
<p>Signature of authorized official</p>	<p>Title</p>	<p>Date</p>

REPORT ON SHIPMENTS TO OR RECEIPTS FOR WORK DONE FOR FEDERAL GOVERNMENT AGENCIES AND THEIR CONTRACTORS AND SUPPLIERS IN 1963													
ITEM 3	a. Total employment of this establishment, average for the year 1963 (Same as item 2h, 1963 column, Census form MA-100)	Total employees	b. Total materials, fuels consumed, etc., in 1963 by this establishment for all purposes (Same as item 5f, 1963 column, Census form MA-100)	Thousands of dollars	c. Name of establishment (Enter from address box on front of form)	d. 11-digit file No.							
ITEM 4 - VALUE OF SHIPMENTS AND OTHER RECEIPTS OF THIS ESTABLISHMENT IN 1963 (Report values in thousands of dollars)													
Product classes of this establishment (Describe)	Product class code	Total value of shipments and/or receipts	Shipments to or receipts for work done for Federal Government agencies and their contractors and suppliers in 1963					Other shipments (Column 3 minus column 4 through column 13)					
			Direct on prime contracts			Indirect on subcontracts							
			DOD	NASA	AEC	Other Federal agencies	Government agency specifically known		Government agency not specifically known				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
a.													
b.													
c.													
d.													
e.													
f.													
g.													
h.													
i. Receipts for work or services performed by you for others on their materials (Describe)													
j. Other receipts - Particularly R and D not identified as to specific product class, and receipts for installation or testing (See instructions)			93000										
k. Shipments of products bought and resold without further manufacture, processing, or assembly			99980										
l. TOTAL (Same as item 9, line 1, 1963 column, Census form MA-100)			99989										
			77000										



FORM <b>MA-161</b> (6-23-64)  U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS  <div style="text-align: center;"><b>EXPORTS OF MANUFACTURED PRODUCTS 1963</b></div> <div style="text-align: center;"><b>PLANT REPORT</b></div>	<div style="border: 1px solid black; padding: 2px;"> <b>CONFIDENTIAL</b>—Response to this inquiry is required by Act of Congress (13 U.S.C.). The report you submit to the Census Bureau is confidential and may be seen only by sworn Census employees. It may not be used for purposes of taxation, investigation, or regulation. Copies retained in your files are also immune from legal process.         </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <b>Item 1 — Name and address of manufacturing plant</b> (<i>In correspondence pertaining to this report please refer to the 11-digit file number in the box above your name.</i>)         </div>							
<b>TO: Bureau of the Census, Industry Division Washington, D.C. 20233</b>	<div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <b>PLEASE READ INSTRUCTIONS ON REVERSE SIDE BEFORE COMPLETING YOUR REPORT.</b> </div>							
(PLEASE RETURN THIS COPY)								
<b>Item 2</b>	<b>Did the plant identified in item 1 produce for export in 1963 more than \$25,000 worth of products?</b> (i.e., did it export this amount either directly or through some other parts of your company or its affiliates, or do you know that shipments of the plant to others were for export without further processing?). . . . . <input type="checkbox"/> Yes <input type="checkbox"/> No <i>If your response to this question is "No," sign the form in the space provided below and return it.</i>							
<b>Item 3</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 75%;"><b>Total value of products shipped and other receipts in 1963, and exports in 1963</b></td> <td style="width: 25%; text-align: right;">(Thousands of dollars)</td> </tr> <tr> <td style="padding: 2px;">a. Total value of products shipped and other receipts of this establishment in 1963 (Same as item 9, total for 1963 on your file copy of Form MA-100, Annual Survey of Manufactures)</td> <td style="text-align: right; padding: 2px;">\$</td> </tr> <tr> <td style="padding: 2px;">b. Products of this establishment exported by your company including products of this establishment shipped to others for export, 1963. (Included in 3a, above)</td> <td style="text-align: right; padding: 2px;">\$</td> </tr> </table>	<b>Total value of products shipped and other receipts in 1963, and exports in 1963</b>	(Thousands of dollars)	a. Total value of products shipped and other receipts of this establishment in 1963 (Same as item 9, total for 1963 on your file copy of Form MA-100, Annual Survey of Manufactures)	\$	b. Products of this establishment exported by your company including products of this establishment shipped to others for export, 1963. (Included in 3a, above)	\$	
<b>Total value of products shipped and other receipts in 1963, and exports in 1963</b>	(Thousands of dollars)							
a. Total value of products shipped and other receipts of this establishment in 1963 (Same as item 9, total for 1963 on your file copy of Form MA-100, Annual Survey of Manufactures)	\$							
b. Products of this establishment exported by your company including products of this establishment shipped to others for export, 1963. (Included in 3a, above)	\$							
<b>Item 4</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 75%;"><b>Number of employees at this plant in 1963</b> (Same as your file copy of Form MA-100, Annual Survey of Manufactures, item 2, line h, 1963 column. The figure is an average of production workers plus all other employees.)</td> <td style="width: 25%; text-align: right;">(Number)</td> </tr> <tr> <td style="height: 30px;"></td> <td></td> </tr> </table>	<b>Number of employees at this plant in 1963</b> (Same as your file copy of Form MA-100, Annual Survey of Manufactures, item 2, line h, 1963 column. The figure is an average of production workers plus all other employees.)	(Number)					
<b>Number of employees at this plant in 1963</b> (Same as your file copy of Form MA-100, Annual Survey of Manufactures, item 2, line h, 1963 column. The figure is an average of production workers plus all other employees.)	(Number)							
<b>Item 5</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 75%;"><b>Products of this establishment exported by your company in 1960</b></td> <td style="width: 25%; text-align: right;">(Thousands of dollars)</td> </tr> <tr> <td style="padding: 2px;">(Please be sure the figure posted for 1960 is consistent with the 1963 figure entered in item 3b, above. Make revision, if necessary.)</td> <td style="text-align: right; padding: 2px;">\$</td> </tr> </table>	<b>Products of this establishment exported by your company in 1960</b>	(Thousands of dollars)	(Please be sure the figure posted for 1960 is consistent with the 1963 figure entered in item 3b, above. Make revision, if necessary.)	\$			
<b>Products of this establishment exported by your company in 1960</b>	(Thousands of dollars)							
(Please be sure the figure posted for 1960 is consistent with the 1963 figure entered in item 3b, above. Make revision, if necessary.)	\$							
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center;"><b>FOR CENSUS USE ONLY</b></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> </tr> </table>		<b>FOR CENSUS USE ONLY</b>						
<b>FOR CENSUS USE ONLY</b>								
Remarks								
Name of person to contact regarding this report	Address ( <i>Number and street, city, State, ZIP code</i> )	Telephone No.						
<b>CERTIFICATION</b> — This report is substantially accurate and has been prepared in accordance with instructions.								
Name of company	Address ( <i>Number and street, city, State, ZIP code</i> )							
Signature of authorized official	Title	Date						

## INSTRUCTIONS

### INTRODUCTORY NOTE

We are conducting this survey to obtain statistics on the origin of exports of manufactured goods by States and smaller areas. This information is needed by various branches of government to assess the impact of foreign trade on the economy. If you have any questions about the survey, please write to the Bureau of the Census, Washington, D.C., 20233, referring to form MA-161 and to the 11-digit file number in the address box.

This survey is being conducted on an establishment or plant basis. This method of reporting is necessary so that export figures reported by each plant may be tabulated in the proper geographic area. A report is required for each establishment for which you received a preaddressed form. If additional forms are needed, please write to us, specifying the address of the establishment for which a blank form is required.

If the figures requested are not readily available from your records, carefully prepared estimates will be accepted.

### DEFINITION OF EXPORTS

The following description of exports is consistent with definitions used in compiling official foreign trade statistics of the United States. It is provided as a guide for respondents. A manufacturer would be expected to report according to his own definitions except where major differences might be expected. In such cases, he would be expected to estimate rather than compile revised data from detailed records.<sup>1</sup>

Exports as understood in this survey include shipments from the United States to foreign countries of products which are not subjected to further manufacture, fabrication, or assembly in this country before being shipped abroad. Exports include shipments to foreign subsidiaries or divisions of your company and its affiliates. Sales to the United States Government for shipment abroad are considered an export if the products are for a foreign nation. They are not classified as an export if for use by the United States Armed Forces.

<sup>1</sup> For example, some manufacturers are known to treat sales to Post Exchanges or to Puerto Rico differently than here described. These differences in most cases are not statistically significant.

Sales (shipments) to customers in Canada are classified as exports. Shipments to Alaska and Hawaii are not exports. Shipments to Puerto Rico are not classified as exports.

Exports do not include products shipped to domestic customers or other plants of your company who will further manufacture, fabricate, or assemble them. Please note, however, that the breaking down of bulk shipments of your products into smaller lots or packages by a wholesale exporter or by other units of your company is not considered to be further manufacturing, processing, or assembly.

### EXPORT VALUES

The export values to be reported on this form should be on the same basis as the values in item 3a, total shipments of the plant in 1963.

### EXPORTS OF THE PRODUCTS OF THIS PLANT BY THIS FIRM (item 3b)

**Item 3b will include**—Export shipments of your products by this establishment and export shipments of the products of this establishment by or on order of other parts of your company or its affiliates such as sales branches, sales offices, warehouses, export offices, and export subsidiaries.

**It will also include**—Sales for export of your products to or on order of export firms, and other sales known to you to be for export. Also, sales to the United States Government in this country for shipment abroad under military and economic assistance programs.

### 1960 EXPORTS

The value of products shipped for export by this establishment in 1960 has been entered in item 5, wherever the 1960 report form could be precisely matched. Please be sure the figure posted for 1960 is consistent with the 1963 figure entered in item 3b. Make revision, if necessary.

If no figure has been posted but the 1960 export figure is readily available, please enter the 1960 figure in item 5, otherwise leave the item blank.





# Appendix E

## **AUTHORITY FOR CENSUS: TITLE 13, UNITED STATES CODE**

(Codification of August 1954 amended by Acts of August 1957, September 1960, and June and October 1962)

### **Collection and publication: Five-year periods (131)**

The Secretary shall take, compile, and publish censuses of manufactures, of mineral industries, and of other businesses . . . in the year 1954 and every fifth year thereafter, and each such census shall relate to the year immediately preceding the taking thereof: **Provided**, That the censuses of manufactures, of mineral industries, and of other businesses, including the distributive trades and service establishments, directed to be taken in the year 1954 relating to the year 1953, shall be taken instead in the year 1955 relating to the year 1954.

### **Geographic scope of censuses (191a)**

Each of the censuses authorized by this chapter (other than censuses of population) shall include each State, the District of Columbia, Alaska, Hawaii, the Virgin Islands, Guam, and the Commonwealth of Puerto Rico, and as may be determined by the Secretary, such other possessions and areas over which the United States

exercises jurisdiction, control, or sovereignty. Censuses of population shall include all geographic areas referred to in the preceding sentence. Inclusion of other areas over which the United States exercises jurisdiction or control shall be subject to the concurrence of the Secretary of State.

### **Failure to answer questions affecting companies, businesses, religious bodies, and other organizations: False answers (224)**

Whoever, being the owner, official, agent, person in charge, or assistant to the person in charge, of any company, business, institution, establishment, religious body, or organization of any nature whatsoever, neglects or refuses, when requested by the Secretary or other authorized officer or employee of the Department of Commerce or bureau or agency thereof, whether such request be made by registered mail, by certified mail, by telegraph, by visiting representative, or by one or more of these methods, to answer completely and correctly to the best of his knowledge all questions relating to his company, business, institution, establishment, religious body, or other organization, or to records or statistics in his official custody, contained on any census or other schedule prepared and submitted to him under the authority of this title, shall be fined not more than \$500 or imprisoned not more than sixty days, or both; and if he willfully gives a false answer to any such question, he shall be fined not more than \$10,000 or imprisoned not more than one year, or both.





# Appendix F

## STANDARD METROPOLITAN STATISTICAL AREAS

(Area titles and definitions of the 2 Standard Consolidated Areas and the 217 Standard Metropolitan Statistical Areas in the United States established by the Bureau of the Budget as of August 4, 1964)

<b>Chicago, Ill.-Northwestern Indiana Standard Consolidated Area</b> .....	Consists of Chicago, Ill., and Gary-Hammond-East Chicago, Ind., Standard Metropolitan Statistical Areas
<b>New York, N.Y.-Northeastern New Jersey Standard Consolidated Area</b> .....	Consists of the following Standard Metropolitan Statistical Areas: New York, N.Y.; Newark, N.J.; Jersey City, N.J.; Paterson-Clifton-Passaic, N.J.; and of Middlesex and Somerset Counties, N.J.
<b>Abilene, Tex.</b> .....	Consists of Jones and Taylor Counties, Tex.
<b>Akron, Ohio</b> .....	Consists of Portage and Summit Counties, Ohio
<b>Albany, Ga.</b> .....	Coextensive with Dougherty County, Ga.
<b>Albany-Schenectady-Troy, N.Y.</b> .....	Consists of Albany, Rensselaer, Saratoga, and Schenectady Counties, N.Y.
<b>Albuquerque, N. Mex.</b> .....	Coextensive with Bernalillo County, N. Mex.
<b>Allentown-Bethlehem-Easton, Pa.-N.J.</b> .....	Consists of Lehigh and Northampton Counties, Pa.; and Warren County, N.J.
<b>Altoona, Pa.</b> .....	Coextensive with Blair County, Pa.
<b>Amarillo, Tex.</b> .....	Consists of Potter and Randall Counties, Tex.
<b>Anaheim-Santa Ana-Garden Grove, Calif.</b> .....	Coextensive with Orange County, Calif.
<b>Ann Arbor, Mich.</b> .....	Coextensive with Washtenaw County, Mich.
<b>Asheville, N.C.</b> .....	Coextensive with Buncombe County, N.C.
<b>Atlanta, Ga.</b> .....	Consists of Clayton, Cobb, De Kalb, Fulton, and Gwinnett Counties, Ga.
<b>Atlantic City, N.J.</b> .....	Coextensive with Atlantic County, N.J.
<b>Augusta, Ga.-S.C.</b> .....	Consists of Richmond County, Ga., and Aiken County, S.C.
<b>Austin, Tex.</b> .....	Coextensive with Travis County, Tex.
<b>Bakersfield, Calif.</b> .....	Coextensive with Kern County, Calif.
<b>Baltimore, Md.</b> .....	Consists of Baltimore city and Anne Arundel, Baltimore, Carroll, and Howard Counties, Md.
<b>Baton Rouge, La.</b> .....	Coextensive with East Baton Rouge Parish, La.
<b>Bay City, Mich.</b> .....	Coextensive with Bay County, Mich.
<b>Beaumont-Port Arthur, Tex.</b> .....	Consists of Jefferson and Orange Counties, Tex.
<b>Billings, Mont.</b> .....	Coextensive with Yellowstone County, Mont.
<b>Binghamton, N.Y.-Pa.</b> .....	Consists of Broome and Tioga Counties, N.Y., and Susquehanna County, Pa.
<b>Birmingham, Ala.</b> .....	Coextensive with Jefferson County, Ala.
<b>Boise City, Idaho</b> .....	Coextensive with Ada County, Idaho
<b>Boston, Mass.</b> .....	Consists of all of Suffolk County; Beverly, Lynn, Peabody, and Salem cities, and Danvers, Hamilton, Lynnfield, Manchester, Marblehead, Middleton, Nahant, Saugus, Swampscott, Topsfield, and Wenham towns in Essex County; Cambridge, Everett, Malden, Medford, Melrose, Newton, Somerville, Waltham, and Woburn cities, and Arlington, Ashland, Bedford, Belmont, Burlington, Concord, Framingham, Lexington, Lincoln, Natick, North Reading, Reading, Sherborn, Stoneham, Sudbury, Wakefield, Watertown, Wayland, Weston, Wilmington, and Winchester towns in Middlesex County; Quincy city, and Braintree, Brookline, Canton, Cohasset, Dedham, Dover, Holbrook, Medfield, Millis, Milton, Needham, Norfolk, Norwood, Randolph, Sharon, Walpole, Wellesley, Westwood, and Weymouth towns in Norfolk County; and Duxbury, Hanover, Hingham, Hull, Marshfield, Norwell, Pembroke, Rockland, and Scituate towns in Plymouth County, Mass.
<b>Bridgeport, Conn</b> .....	Consists of Bridgeport and Shelton cities, and Easton, Fairfield, Monroe, Stratford, and Trumbull towns in Fairfield County; and Milford town in New Haven County, Conn.
<b>Brockton, Mass.</b> .....	Consists of Easton town in Bristol County; Avon and Stoughton towns in Norfolk County; and Brockton city, and Abington, Bridgewater, East Bridgewater, Hanson, West Bridgewater, and Whitman towns in Plymouth County, Mass.
<b>Brownsville-Harlingen-San Benito, Tex.</b> .....	Coextensive with Cameron County, Tex.
<b>Buffalo, N.Y.</b> .....	Consists of Erie and Niagara Counties, N.Y.
<b>Canton, Ohio</b> .....	Coextensive with Stark County, Ohio
<b>Cedar Rapids, Iowa</b> .....	Coextensive with Linn County, Iowa
<b>Champaign-Urbana, Ill.</b> .....	Coextensive with Champaign County, Ill.
<b>Charleston, S.C.</b> .....	Consists of Berkeley and Charleston Counties, S.C.
<b>Charleston, W. Va.</b> .....	Coextensive with Kanawha County, W. Va.
<b>Charlotte, N.C.</b> .....	Consists of Mecklenburg and Union Counties, N.C.
<b>Chattanooga, Tenn.-Ga.</b> .....	Consists of Hamilton County, Tenn., and Walker County, Ga.



# STANDARD METROPOLITAN STATISTICAL AREAS—Continued

Chicago, Ill. ....	Consists of Cook, Du Page, Kane, Lake, McHenry, and Will Counties, Ill.
Cincinnati, Ohio-Ky.-Ind. ....	Consists of Clermont, Hamilton, and Warren Counties, Ohio; Boone, Campbell, and Kenton Counties, Ky.; and Dearborn County, Ind.
Cleveland, Ohio ....	Consists of Cuyahoga, Geauga, Lake, and Medina Counties, Ohio
Colorado Springs, Colo. ....	Coextensive with El Paso County, Colo.
Columbia, S.C. ....	Consists of Lexington and Richland Counties, S.C.
Columbus, Ga.-Ala. ....	Consists of Chattahoochee and Muscogee Counties, Ga., and Russell County, Ala.
Columbus, Ohio ....	Consists of Delaware, Franklin, and Pickaway Counties, Ohio
Corpus Christi, Tex. ....	Coextensive with Nueces County, Tex.
Dallas, Tex. ....	Consists of Collin, Dallas, Denton, and Ellis Counties, Tex.
Davenport-Rock Island-Moline, Iowa-Ill. ....	Consists of Scott County, Iowa, and Henry and Rock Island Counties, Ill.
Dayton, Ohio. ....	Consists of Greene, Miami, Montgomery, and Preble Counties, Ohio
Decatur, Ill. ....	Coextensive with Macon County, Ill.
Denver, Colo. ....	Consists of Adams, Arapahoe, Boulder, Denver, and Jefferson Counties, Colo.
Des Moines, Iowa ....	Coextensive with Polk County, Iowa
Detroit, Mich. ....	Consists of Macomb, Oakland, and Wayne Counties, Mich.
Dubuque, Iowa ....	Coextensive with Dubuque County, Iowa
Duluth-Superior, Minn.-Wis. ....	Consists of St. Louis County, Minn., and Douglas County, Wis.
Durham, N.C. ....	Coextensive with Durham County, N.C.
El Paso, Tex. ....	Coextensive with El Paso County, Tex.
Erie, Pa. ....	Coextensive with Erie County, Pa.
Eugene, Oreg. ....	Coextensive with Lane County, Oreg.
Evansville, Ind.-Ky. ....	Consists of Vanderburgh and Warrick Counties, Ind., and Henderson County, Ky.
Fall River, Mass.-R.I. ....	Consists of Fall River city, and Somerset, Swansea, and Westport towns in Bristol County, Mass.; and Tiverton town in Newport County, R.I.
Fargo-Moorhead, N. Dak.-Minn. ....	Consists of Cass County, N. Dak., and Clay County, Minn.
Fitchburg-Leominster, Mass. ....	Consists of Shirley and Townsend towns in Middlesex County; and Fitchburg and Leominster cities, and Lunenburg and Westminster towns in Worcester County, Mass.
Flint, Mich. ....	Consists of Genesee and Lapeer Counties, Mich.
Fort Lauderdale-Hollywood, Fla. ....	Coextensive with Broward County, Fla.
Fort Smith, Ark.-Okla. ....	Consists of Crawford and Sebastian Counties, Ark.; and LeFlore and Sequoyah Counties, Okla.
Fort Wayne, Ind. ....	Coextensive with Allen County, Ind.
Fort Worth, Tex. ....	Consists of Johnson and Tarrant Counties, Tex.
Fresno, Calif. ....	Coextensive with Fresno County, Calif.
Gadsden, Ala. ....	Coextensive with Etowah County, Ala.
Galveston-Texas City, Tex. ....	Coextensive with Galveston County, Tex.
Gary-Hammond-East Chicago, Ind. ....	Consists of Lake and Porter Counties, Ind.
Grand Rapids, Mich. ....	Consists of Kent and Ottawa Counties, Mich.
Great Falls, Mont. ....	Coextensive with Cascade County, Mont.
Green Bay, Wis. ....	Coextensive with Brown County, Wis.
Greensboro-High Point, N.C. ....	Coextensive with Guilford County, N.C.
Greenville, S.C. ....	Consists of Greenville and Pickens Counties, S.C.
Hamilton-Middletown, Ohio ....	Coextensive with Butler County, Ohio
Harrisburg, Pa. ....	Consists of Cumberland, Dauphin, and Perry Counties, Pa.
Hartford, Conn. ....	Consists of Hartford city, and Avon, Bloomfield, Canton, East Granby, East Hartford, East Windsor, Enfield, Farmington, Glastonbury, Granby, Manchester, Newington, Rocky Hill, Simsbury, South Windsor, Suffield, West Hartford, Wethersfield, Windsor, and Windsor Locks towns in Hartford County; Cromwell town in Middlesex County; and Andover, Bolton, Coventry, Ellington, and Vernon towns in Tolland County, Conn.
Honolulu, Hawaii ....	Coextensive with Honolulu County, Hawaii
Houston, Tex. ....	Coextensive with Harris County, Tex.
Huntington-Ashland, W. Va.-Ky.-Ohio ....	Consists of Cabell and Wayne Counties, W. Va.; Boyd County, Ky.; and Lawrence County, Ohio
Huntsville, Ala. ....	Consists of Limestone and Madison Counties, Ala.
Indianapolis, Ind. ....	Consists of Hamilton, Hancock, Hendricks, Johnson, Marion, Morgan, and Shelby Counties, Ind.
Jackson, Mich. ....	Coextensive with Jackson County, Mich.
Jackson, Miss. ....	Consists of Hinds and Rankin Counties, Miss.
Jacksonville, Fla. ....	Coextensive with Duval County, Fla.
Jersey City, N.J. ....	Coextensive with Hudson County, N.J.

# STANDARD METROPOLITAN STATISTICAL AREAS—Continued

Johnstown, Pa. ....	Consists of Cambria and Somerset Counties, Pa.
Kalamazoo, Mich. ....	Coextensive with Kalamazoo County, Mich.
Kansas City, Mo.-Kans. ....	Consists of Cass, Clay, Jackson, and Platte Counties, Mo., and Johnson and Wyandotte Counties, Kans.
Kenosha, Wis. ....	Coextensive with Kenosha County, Wis.
Knoxville, Tenn. ....	Consists of Anderson, Blount, and Knox Counties, Tenn.
Lafayette, La. ....	Coextensive with Lafayette Parish, La.
Lake Charles, La. ....	Coextensive with Calcasieu Parish, La.
Lancaster, Pa. ....	Coextensive with Lancaster County, Pa.
Lansing, Mich. ....	Consists of Clinton, Eaton, and Ingham Counties, Mich.
Laredo, Tex. ....	Coextensive with Webb County, Tex.
Las Vegas, Nev. ....	Coextensive with Clark County, Nev.
Lawrence-Haverhill, Mass.-N.H. ....	Consists of Lawrence and Haverhill cities, and Andover, Georgetown, Groveland, Merrimac, Methuen, North Andover, and West Newbury towns in Essex County, Mass.; and Newton, Plaistow, and Salem towns in Rockingham County, N.H.
Lawton, Okla. ....	Coextensive with Comanche County, Okla.
Lewiston-Auburn, Maine ....	Consists of Auburn and Lewiston cities, and Lisbon town in Androscoggin County, Maine
Lexington, Ky. ....	Coextensive with Fayette County, Ky.
Lima, Ohio. ....	Coextensive with Allen County, Ohio
Lincoln, Nebr. ....	Coextensive with Lancaster County, Nebr.
Little Rock-North Little Rock, Ark. ....	Coextensive with Pulaski County, Ark.
Lorain-Elyria, Ohio ....	Coextensive with Lorain County, Ohio
Los Angeles-Long Beach, Calif. ....	Coextensive with Los Angeles County, Calif.
Louisville, Ky.-Ind. ....	Consists of Jefferson County, Ky., and Clark and Floyd Counties, Ind.
Lowell, Mass. ....	Consists of Lowell city, and Billerica, Chelmsford, Dracut, Tewksbury, Tyngsborough, and Westford towns in Middlesex County, Mass.
Lubbock, Tex. ....	Coextensive with Lubbock County, Tex.
Lynchburg, Va. ....	Consists of Lynchburg city, and Amherst and Campbell Counties, Va.
Macon, Ga. ....	Consists of Bibb and Houston Counties, Ga.
Madison, Wis. ....	Coextensive with Dane County, Wis.
Manchester, N.H. ....	Consists of Manchester city, and Bedford and Goffstown towns in Hillsborough County; and Hooksett town in Merrimack County, N.H.
Memphis, Tenn.-Ark. ....	Consists of Shelby County, Tenn., and Crittenden County, Ark.
Meriden, Conn. ....	Coextensive with Meriden city in New Haven County, Conn.
Miami, Fla. ....	Coextensive with Dade County, Fla.
Midland, Tex. ....	Coextensive with Midland County, Tex.
Milwaukee, Wis. ....	Consists of Milwaukee, Ozaukee, and Waukesha Counties, Wis.
Minneapolis-St. Paul, Minn. ....	Consists of Anoka, Dakota, Hennepin, Ramsey, and Washington Counties, Minn.
Mobile, Ala. ....	Consists of Baldwin and Mobile Counties, Ala.
Monroe, La. ....	Coextensive with Ouachita Parish, La.
Montgomery, Ala. ....	Consists of Elmore and Montgomery Counties, Ala.
Muncie, Ind. ....	Coextensive with Delaware County, Ind.
Muskegon-Muskegon Heights, Mich. ....	Coextensive with Muskegon County, Mich.
Nashville, Tenn. ....	Consists of Davidson, Sumner, and Wilson Counties, Tenn.
New Bedford, Mass. ....	Consists of New Bedford city, and Acushnet, Dartmouth, and Fairhaven towns in Bristol County; and Marion and Mattapoisett towns in Plymouth County, Mass.
New Britain, Conn. ....	Consists of New Britain city, and Berlin, Plainville, and Southington towns in Hartford County, Conn.
New Haven, Conn. ....	Consists of New Haven city, and Bethany, Branford, East Haven, Guilford, Hamden, North Branford, North Haven, Orange, West Haven, and Woodbridge towns in New Haven County, Conn.
New London-Groton-Norwich, Conn. ....	Consists of New London and Norwich cities, and East Lyme, Griswold, Groton, Ledyard, Lisbon, Montville, Old Lyme, Preston, Sprague, Stonington, and Waterford towns in New London County, Conn.
New Orleans, La. ....	Consists of Jefferson, Orleans, St. Bernard, and St. Tammany Parishes, La.
New York, N.Y. ....	Consists of New York City, and Nassau, Rockland, Suffolk, and Westchester Counties, N.Y.
Newark, N.J. ....	Consists of Essex, Morris, and Union Counties, N.J.
Newport News-Hampton, Va. ....	Consists of Newport News and Hampton cities, and York County, Va.
Norfolk-Portsmouth, Va. ....	Consists of Chesapeake, Norfolk, Portsmouth, and Virginia Beach cities, Va.



# STANDARD METROPOLITAN STATISTICAL AREAS—Continued

Norwalk, Conn. -----	Consists of Norwalk city, and Westport and Wilton towns in Fairfield County, Conn.
Odessa, Tex. -----	Coextensive with Ector County, Tex.
Ogden, Utah -----	Coextensive with Weber County, Utah
Oklahoma City, Okla. -----	Consists of Canadian, Cleveland, and Oklahoma Counties, Okla.
Omaha, Nebr.-Iowa -----	Consists of Douglas and Sarpy Counties, Nebr., and Pottawattamie County, Iowa
Orlando, Fla. -----	Consists of Orange and Seminole Counties, Fla.
Paterson-Clifton-Passaic, N.J. -----	Consists of Bergen and Passaic Counties, N.J.
Pensacola, Fla. -----	Consists of Escambia and Santa Rosa Counties, Fla.
Peoria, Ill. -----	Consists of Peoria, Tazewell, and Woodford Counties, Ill.
Philadelphia, Pa.-N.J. -----	Consists of Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties, Pa., and Burlington, Camden, and Gloucester Counties, N.J.
Phoenix, Ariz. -----	Coextensive with Maricopa County, Ariz.
Pine Bluff, Ark. -----	Coextensive with Jefferson County, Ark.
Pittsburgh, Pa. -----	Consists of Allegheny, Beaver, Washington, and Westmoreland Counties, Pa.
Pittsfield, Mass. -----	Consists of Pittsfield city, and Dalton, Lanesborough, Lee, and Lenox towns in Berkshire County, Mass.
Portland, Maine -----	Consists of Portland, South Portland, and Westbrook cities, and Cape Elizabeth, Cumberland, Falmouth, Gorham, Scarborough, and Yarmouth towns in Cumberland County, Maine
Portland, Oreg.-Wash. -----	Consists of Clackamas, Multnomah, and Washington Counties, Oreg., and Clark County, Wash.
Providence-Pawtucket-Warwick, R.I.-Mass. ----	Consists of all of Bristol County; Warwick city, and Coventry, East Greenwich, and West Warwick towns in Kent County; Jamestown town in Newport County; Central Falls, Cranston, East Providence, Pawtucket, Providence, and Woonsocket cities, and Burrillville, Cumberland, Johnston, Lincoln, North Providence, North Smithfield, and Smithfield towns in Providence County; and Narragansett and North Kingstown towns in Washington County, R.I. Also, Attleboro city and North Attleborough, Rehoboth, and Seekonk towns in Bristol County, Mass.; Bellingham, Franklin, Plainville, and Wrentham towns in Norfolk County, Mass.; and Blackstone and Millville towns in Worcester County, Mass.
Provo-Orem, Utah -----	Coextensive with Utah County, Utah
Pueblo, Colo. -----	Coextensive with Pueblo County, Colo.
Racine, Wis. -----	Coextensive with Racine County, Wis.
Raleigh, N.C. -----	Coextensive with Wake County, N.C.
Reading, Pa. -----	Coextensive with Berks County, Pa.
Reno, Nev. -----	Coextensive with Washoe County, Nev.
Richmond, Va. -----	Consists of Richmond city, and Chesterfield, Hanover, and Henrico Counties, Va.
Roanoke, Va. -----	Consists of Roanoke city and Roanoke County, Va.
Rochester, N.Y. -----	Consists of Livingston, Monroe, Orleans, and Wayne Counties, N.Y.
Rockford, Ill. -----	Consists of Boone and Winnebago Counties, Ill.
Sacramento, Calif. -----	Consists of Placer, Sacramento, and Yolo Counties, Calif.
Saginaw, Mich. -----	Coextensive with Saginaw County, Mich.
St. Joseph, Mo. -----	Coextensive with Buchanan County, Mo.
St. Louis, Mo.-Ill. -----	Consists of St. Louis city, and Franklin, Jefferson, St. Charles, and St. Louis Counties, Mo.; and Madison and St. Clair Counties, Ill.
Salt Lake City, Utah -----	Consists of Davis and Salt Lake Counties, Utah
San Angelo, Tex. -----	Coextensive with Tom Green County, Tex.
San Antonio, Tex. -----	Consists of Bexar and Guadalupe Counties, Tex.
San Bernardino-Riverside-Ontario, Calif. ----	Consists of Riverside and San Bernardino Counties, Calif.
San Diego, Calif. -----	Coextensive with San Diego County, Calif.
San Francisco-Oakland, Calif. -----	Consists of Alameda, Contra Costa, Marin, San Francisco, and San Mateo Counties, Calif.
San Jose, Calif. -----	Coextensive with Santa Clara County, Calif.
Santa Barbara, Calif. -----	Coextensive with Santa Barbara County, Calif.
Savannah, Ga. -----	Coextensive with Chatham County, Ga.
Scranton, Pa. -----	Coextensive with Lackawanna County, Pa.
Seattle-Everett, Wash. -----	Consists of King and Snohomish Counties, Wash.
Shreveport, La. -----	Consists of Bossier and Caddo Parishes, La.
Sioux City, Iowa-Nebr. -----	Consists of Woodbury County, Iowa, and Dakota County, Nebr.
Sioux Falls, S. Dak. -----	Coextensive with Minnehaha County, S. Dak.
South Bend, Ind. -----	Consists of Marshall and St. Joseph Counties, Ind.
Spokane, Wash. -----	Coextensive with Spokane County, Wash.

# STANDARD METROPOLITAN STATISTICAL AREAS—Continued

Springfield, Ill. -----	Coextensive with Sangamon County, Ill.
Springfield, Mo. -----	Coextensive with Greene County, Mo.
Springfield, Ohio -----	Coextensive with Clark County, Ohio
Springfield-Chicopee-Holyoke, Mass.-Conn. --	Consists of Chicopee, Holyoke, Springfield, and Westfield cities, and Agawam, East Longmeadow, Hampden, Longmeadow, Ludlow, Monson, Palmer, Southwick, West Springfield, and Wilbraham towns in Hampden County; Northampton city, and Easthampton, Granby, Hadley, and South Hadley towns in Hampshire County; and Warren town in Worcester County, Mass.; and Somers town in Tolland County, Conn.
Stamford, Conn. -----	Consists of Stamford city, and Darien, Greenwich, and New Canaan towns in Fairfield County, Conn.
Steubenville-Weirton, Ohio-W. Va. -----	Consists of Jefferson County, Ohio, and Brooke and Hancock Counties, W. Va.
Stockton, Calif. -----	Coextensive with San Joaquin County, Calif.
Syracuse, N.Y. -----	Consists of Madison, Onondaga, and Oswego Counties, N.Y.
Tacoma, Wash. -----	Coextensive with Pierce County, Wash.
Tampa-St. Petersburg, Fla. -----	Consists of Hillsborough and Pinellas Counties, Fla.
Terre Haute, Ind. -----	Consists of Clay, Sullivan, Vermillion, and Vigo Counties, Ind.
Texarkana, Tex.-Ark. -----	Consists of Bowie County, Tex., and Miller County, Ark.
Toledo, Ohio-Mich. -----	Consists of Lucas and Wood Counties, Ohio, and Monroe County, Mich.
Topeka, Kans. -----	Coextensive with Shawnee County, Kans.
Trenton, N.J. -----	Coextensive with Mercer County, N.J.
Tucson, Ariz. -----	Coextensive with Pima County, Ariz.
Tulsa, Okla. -----	Consists of Creek, Osage, and Tulsa Counties, Okla.
Tuscaloosa, Ala. -----	Coextensive with Tuscaloosa County, Ala.
Tyler, Tex. -----	Coextensive with Smith County, Tex.
Utica-Rome, N.Y. -----	Consists of Herkimer and Oneida Counties, N.Y.
Vallejo-Napa, Calif. -----	Consists of Napa and Solano Counties, Calif.
Waco, Tex. -----	Coextensive with McLennan County, Tex.
Washington, D.C.-Md.-Va. -----	Consists of Washington, D.C.; Montgomery and Prince Georges Counties, Md.; and Alexandria, Fairfax, and Falls Church cities, and Arlington and Fairfax Counties, Va.
Waterbury, Conn. -----	Consists of Thomaston, Watertown, and Woodbury towns in Litchfield County; and Waterbury city, Naugatuck borough, and Beacon Falls, Cheshire, Middlebury, Prospect, and Wolcott towns in New Haven, County, Conn.
Waterloo, Iowa -----	Coextensive with Black Hawk County, Iowa
West Palm Beach, Fla. -----	Coextensive with Palm Beach County, Fla.
Wheeling, W. Va.-Ohio -----	Consists of Marshall and Ohio Counties, W. Va., and Belmont County, Ohio
Wichita, Kans. -----	Consists of Butler and Sedgwick Counties, Kans.
Wichita Falls, Tex. -----	Consists of Archer and Wichita Counties, Tex.
Wilkes-Barre-Hazleton, Pa. -----	Coextensive with Luzerne County, Pa.
Wilmington, Del.-N.J.-Md. -----	Consists of New Castle County, Del., Salem County, N.J., and Cecil County, Md.
Winston-Salem, N.C. -----	Coextensive with Forsyth County, N.C.
Worcester, Mass. -----	Consists of Worcester city, and Auburn, Berlin, Boylston, Brookfield, East Brookfield, Grafton, Holden, Leicester, Millbury, Northborough, Northbridge, North Brookfield, Oxford, Paxton, Shrewsbury, Spencer, Sterling, Sutton, Upton, Westborough, and West Boylston towns in Worcester County, Mass.
York, Pa. -----	Consists of Adams and York Counties, Pa.
Youngstown-Warren, Ohio -----	Consists of Mahoning and Trumbull Counties, Ohio





# Appendix G

## CURRENT INDUSTRIAL REPORTS (CIR) COMMODITY STATISTICS

This appendix lists the 1963 Current Industrial Reports (CIR), a series of commodity surveys conducted by the Bureau of the Census, together with their frequency of publication. From many of these CIR's, selected data for 1963 were included in table 6 of the industry chapters of Volume II of the 1963 Census of Manufactures. The extreme right column lists the page numbers in the volume, including page numbers for data-containing footnotes, where

CIR data (as published in the 1963 census) may be found. Where the column for page number reference is blank, it signifies that no data from that CIR were published in the 1963 Census of Manufactures. It is to be noted that the CIR numbers and titles in this appendix relate to designations as separate published reports. References in the 1963 census volume itself will usually be in terms of the number and title of the CIR survey forms as mailed to the respondent for reporting in 1963.

For "frequency of publication," the letter symbols have the following meaning: M = Monthly; Q = Quarterly; SA = Semiannually; and A = Annually. In the extreme right column "Ftn." represents "footnote," on the page shown immediately to the left.



# Current Industrial Reports Commodity Statistics Included in Volume II of 1963 Census of Manufactures

CIR series number	Title	Frequency of publication	Pages of Volume II containing CIR data	CIR series number	Title	Frequency of publication	Pages of Volume II containing CIR data
M20A	Flour Milling Products	M		M30E	Plastics Bottles	M	
M20C	Confectionery (Including Chocolate Products)	M		M31A	Shoes and Slippers	M	
M20E	Poultry and Livestock Feed Production	A		M31E	Luggage, Briefcases, and Personal Leather Goods	M	31B-16
M20F	Salad Dressing, Mayonnaise, and Related Products	A	20C-24	M32C	Refractories	Q	32B-17; 32E-21, 23
M20J	Fats and Oils - Vegetable Oil Crushers	M		M32D	Clay Construction Products	M	32B-19, Ftn. 3
M20K	Fats and Oils - Production, Consumption, and Factory and Warehouse Stocks	M	20A-16, Ftn. 4	M32E	Pressed and Blown Glassware (Except Glass Containers)	A	32A-15, 16, 18
M22A	Woven Fabrics: Production, Inventories, and Unfilled Orders	M		M32G	Glass Containers	M	
M22D	Consumption on the Woolen and Worsted Systems	M	22F-23, Ftn. 6	M32J	Fibrous Glass	A	32A-18
M22E	Woolen and Worsted Machinery Activity	A		M33A	Iron and Steel Foundries and Steel Ingot Producers (Report on Products Shipped and Materials Used)	M	
M22F	Yarn Production	M	22E-14, Note and Ftn. 7	M33-1	Iron and Steel Castings	M	33B-13, Ftn. 1
M22G	Narrow Fabrics	A	22A-21	M33-2	Aluminum Ingot and Mill Products	M	33D-35, Ftn. 5
M22K	Knit Cloth for Sale	A	22B-29, 30	M33-3	Inventories of Steel Mill Shapes	M	
M22L	Tufted Textile Products	SA	23E-19	M33B	Steel Mill Products	A	33A-23-26, 29, 32, 34, 36, 38
M22M	Stocks of Carpet Wool and Related Fibers	Q		M33C	Commercial Steel Forgings	M	33A-26, Ftn. 5; 33E-12, Ftn. 2
M22P	Cotton, Man-Made Fiber Staple, and Linters	M		M33E	Nonferrous Castings	M	
M22Q	Rugs, Carpets, and Carpeting	A	22D-9	M33G	Magnesium Mill Products	M	33D-38
M22S	Cotton, Silk, and Man-Made Fiber Woven Goods Finished	A	22C-14, Ftn. 2	M34D	Metal Cans	M	33A-38; 34A-16
M22T.1	Cotton Broad-Woven Goods	Q	22A-22, Ftn. 2	M34E	Plumbing Fixtures	Q	24-C-17; 32C-13; 34B-12
M22T.2	Man-Made Fiber Broad-Woven Goods	Q		M34G	Steel Power Boilers	A	
M22T.3	Wool Broad-Woven Goods	Q	22A-22, Ftn. 7	M34H	Closures for Containers	M	34D-22, Ftn. 5
M22T.4	Tire Cord and Tire Cord Fabrics	Q	22F-20	M34K	Steel Shipping Barrels, Drums, and Pails	M	34E-25
M22T.5	Nonwoven Fabrics (Bonded Fiber Fabrics and Conventional Felts)	A	22F-22	M34N	Heating and Cooking Equipment	M	34B-13-17; 36B-17, 20, 25
M22T.6	Felts, Except Woven Felts and Hats	Q		M34P	Aluminum Foil Converted	A	
M23A	Apparel	A	23A-36-43, 43, Ftn. 4, 5; 23B-23-26, 26, Ftn. 9; 23C-31-37, 37, Ftn. 20; 23D-29	M35A	Farm Machines and Equipment	Q	35A-16, 43; 37C-24
M23B	Men's Apparel	M		M35C	Typewriters	M	
M23C	Knit Underwear and Nightwear	Q		M35D	Construction Machinery	Q	35B-19-23, 29
M23D	Gloves and Mittens	A	23D-28; 31B-16	M35F	Mining Machinery and Equipment	A	35B-24; 37C-22
M23H	Women's, Misses', and Juniors' Apparel	M		M35G	Farm Pumps	M	35E-19, 26
M23J	Brassieres, Corsets, and Allied Garments	A	23C-33, 37, Ftn. 12, 13, 23C-39; 23D-30	M35H	Fans, Blowers, and Unit Heaters	Q	34B-15, 16; 35E-21, 26
M23X	Sheets, Pillowcases, and Towels	A	22A-18; 23E-19, 20	M35L	Internal Combustion Engines	A	35A-15, 19-23, 43
M24C	Red Cedar Shingles	A		M35M	Air-Conditioning and Refrigeration Equipment	A	35G-18-24, 28
M24F	Hardwood Plywood: Production and Shipments	A	24B-12	M35P	Pumps and Compressors	A	35E-18-20, 26
M24H	Softwood Plywood and Veneer	A		M35R	Office, Computing, and Accounting Machines	A	35F-12, 13, 15
M24T	Lumber Production and Mill Stocks	A		M35S	Tractors (Except Garden Tractors)	M	35A-16, 40; 35B-19, 29
M25D	Household Furniture and Bedding Products	A		M35U	Vending Machines	A	35G-18
M25E	Mattresses and Bedsprings	A	25A-19	M35W	Metalworking Machinery	Q	35C-17, 27
M25H	Office Furniture	M	25B-21	M36A	Switchgear, Switchboard Apparatus, Relays, and Industrial Controls	A	36A-27, 36, 39, Ftn. 5, 36A-41; 36D-39, Ftn. 5
M26A	Pulp, Paper, and Board	M		M36B	Electric Lamps	Q	36C-14
M26F	Converted Flexible Packaging Products	M		M36C	Fluorescent Lamp Ballasts	Q	36A-26
M28A	Inorganic Chemicals and Gases	M	28A-20-31	M36D	Electric Lamps	M	
M28D	Superphosphate and Other Phosphatic Fertilizer Materials	M		M36E	Electric Housewares and Fans	A	36B-19, 25
M28F	Paint, Varnish, and Lacquer	M		M36H	Motors and Generators	A	36A-29, 41
M28G	Pharmaceutical Preparations, Except Biologicals	A	28C-9-13	M36K	Wiring Devices and Supplies	A	36C-17, 18
M28W	Animal Glue	M		M36L	Electric Lighting Fixtures	A	36C-15
M29A	Asphalt and Tar Roofing and Siding Products	M		M36M	Home-Type Radio Receivers and Television Sets, Automobile Radios, Phonographs, and Record Player Attachments	A	36D-27, 32
M30A	Rubber (Supply and Distribution for the United States)	M		M36N	Selected Electronic and Associated Products	A	36A-24; 36D-27-29, 32; 36E-15, 19
M30D	Shipments of Selected Plastics Products	A	30A-19-22	M37D	Backlog of Orders for Aerospace Companies	Q	
				M37E	Aircraft Propellers	SA	
				M37G	Complete Aircraft and Aircraft Engines	M	37B-18, Ftn. 3, 5
				M37L	Truck Trailers	M	37A-13, 14
				M38B	Selected Instruments and Related Products	A	19A-14; 36A-23, 41; 38A-25, 32
				M38Q	Atomic Energy Products	A	

# Appendix H

## COMPARABILITY OF PRODUCT CLASSES BETWEEN THE 1963 AND 1958 CENSUSES OF MANUFACTURERS

This appendix lists those classes of products which were changed in coverage and/or in code between the 1958 and 1963 censuses of manufactures. Part 1 traces the comparability of classes as defined in 1963 and as changed from 1958; Part 2 shows comparability of classes as existing in 1958, and as altered for 1963.

The changed relationship between the classes of products between 1958 and 1963 resulted partly from a revision of the Standard Industrial Classification (SIC) (published early in 1963 as a supplement to the SIC Manual), on which classification codes and procedures employed by the Bureau of the Census are based. The supplement and manual referred to are published by the Bureau of the Budget and are available from the U.S. Government Printing Office, Washington, D.C. 20402. The 1963 revision was a limited one, confined to some reordering of 4-digit industries within 3-digit groups. In addition to product class changes resulting from the deletion of some industries defined in the Manual in 1958, and the defining of new industries out of existing industries, there were a considerable number of changes in product classes within the boundaries of unchanged 4-digit industries. These resulted from (1) an effort to isolate important product classes in growing areas, (2) a desire to recognize different end-uses or markets, and (3) a reexamination of the detailed commodity structure of some industries (for example, 2821, plastics materials, etc., and 2834, pharmaceutical preparations). All of these changes

are reflected in the accompanying tabular presentation of product class comparability.

Product classes, coded to five digits, represent an intermediate level of classification between the 4-digit establishment industry coding of the SIC and the 7-digit level used for product coding by the Bureau of the Census for the census of manufactures and for the more than 100 Current Industrial Reports published by the Bureau. Product classes, representing relatively homogeneous groupings of products, are utilized for requesting output data in the Annual Survey of Manufactures (ASM). In addition to data published in the ASM, production and/or shipments information for product classes are shown in the table 6 series of the industry chapters of the Census of Manufactures for 1963 (Volume II, **Industry Statistics**) and, for product-class specialization, in the general statistics in table 8. Production, shipments, inventory, and other data by product class will be found in numerous publications in the Current Industrial Reports series. Where applicable, table 6A of the industry chapters of the census of manufactures carries product data obtained from the Current Industrial Reports.

In the two parts of this appendix, the codes and descriptions of product classes affected by revision between 1958 and 1963 are given. In each of the parts, the product class or classes shown on the left are comparable to the class or classes shown on the right. For example, in Part 1, product classes 20221 and 20222 for 1963 are the equivalent in coverage to classes 20220 and 20252 for 1958. In Part 2, the reverse situation is the case. Where a product class shown in the left column is part of a product class in the right column, the class code in the right column contains an asterisk (\*). Thus, it is evident that a product class in one year may be a part of several product classes in the other year. Where such situations exist, comparability between the censuses becomes difficult at the product class level.



## Comparability of Product Classes

### Part 1. 1963 Census of Manufactures as Related to 1958 Census of Manufactures

1963		1958 equivalent	
Product class code	Product class description	Product class code	Product class description
19291	Ammunition except for small arms, n.e.c.	19210	Artillery ammunition over 30 mm.(or over 1.18 inches)
19292	Receipts for ammunition loading and assembly, over 30 mm. (or over 1.18 inches)	19220	Receipts for ammunition loading and assembly, over 30 mm. (or over 1.18 inches)
19253	Research and development on guided missiles and space vehicles	19253	Research and development on guided missiles (complete)
19255	All other services on complete missiles and space vehicles		
19293	Ammunition, n.e.c.	19290	Ammunition, n.e.c.
20221	Natural cheese, except cottage cheese	20220	Cheese, except cottage cheese
20222	Process cheese and related products		
20341	Dried and dehydrated fruits and vegetables and freeze dried products	20340	Dried and dehydrated fruits and vegetables and soup mix
20342	Soup Mixes		
20943	Animal and marine oil mill products, including foots	20950	Animal and marine oil mill products, including foots
20951	Roasted coffee, whole bean or ground	20995	Roasted coffee
20952	Concentrated coffee		
22513	Finished seamless hosiery, full-length and knee-length (women's)	22521	Women's finished seamless hosiery, except anklets
22514	Women's full-fashioned hosiery shipped in the greige	22512	Women's full-fashioned hosiery shipped in the greige
22515	Women's seamless full-length and knee-length hosiery shipped in the greige	22524	Seamless hosiery shipped in the greige
22524	Seamless hosiery shipped in the greige (except women's)		
24996	Hard pressed wood fiber board	26613	Hard pressed wood fiber board
26471	Sanitary napkins and tampons	26494	Sanitary napkins and tampons
26472	Sanitary tissue health products	26493	Sanitary tissue health products
28211	Unsupported plastics film, sheets, rods, tubes, from resins made in same establishment	28211*	Cellulose plastics materials, except from scrap
		28213*	Synthetic resins, except resins for protective coatings
		28214	Vinyl and polyethylene unsupported film and sheeting from resins manufactured in same establishment
28213	Thermoplastic resins, except resins for protective coatings	28211*	Cellulose plastics materials, except from scrap
		28213*	Synthetic resins, except resins for protective coatings
28214	Thermosetting resins, except resins for protective coatings	28213*	Synthetic resins, except resins for protective coatings
		28215*	Plastics and resin materials, n.e.c.
28215	Adhesives made from plastics and resin materials produced in same establishment	28211*	Cellulose plastics materials, except from scrap
		28213*	Synthetic resins, except resins for protective coatings
		28215*	Plastics and resin materials, n.e.c.
28216	Synthetic resins for protective coatings	28215*	Plastics and resin materials, n.e.c.
28217	Custom compounding of purchased resins	28215*	Plastics and resin materials, n.e.c.
28219	Plastics and resin materials, n.e.c.	28211*	Cellulose plastics materials, except from scrap
		28213*	Synthetic resins, except resins for protective coatings
		28215*	Plastics and resin materials, n.e.c.
28331	Synthetic organic medicinal chemicals in bulk	28331	Medicinal and botanical drugs, uncompounded, for human use
28332	Other medicinal chemicals and botanical products, n.e.c. (in bulk)		
		28332	Medicinal drugs for veterinary use

\*Represents part.

## Comparability of Product Classes

### Part 1. 1963 Census of Manufactures as Related to 1958 Census of Manufactures--Con.

1963		1958 equivalent	
Product class code	Product class description	Product class code	Product class description
28341	Pharmaceutical preparations affecting neoplasms, endocrine system and metabolic disease, for human use	28348 28349*	Hormone preparations Other pharmaceutical preparations
28342	Pharmaceutical preparations acting on the central nervous system and the sense organs, for human use	28346* 28347* 28349*	Analgesics, including narcotics Tranquilizers, sedatives, and hypnotics Other pharmaceutical preparations
28343	Pharmaceutical preparations acting on the cardiovascular system, for human use	28347* 28349*	Tranquilizers, sedatives, and hypnotics Other pharmaceutical preparations
28344	Pharmaceutical preparations acting on the respiratory system, for human use	28343	Cough and cold preparations for human use
28345	Pharmaceutical preparations acting on the digestive or genito-urinary systems, for human use	28344 28349*	Laxatives and stomach and ulcer preparations for human use Other pharmaceutical preparations
28346	Pharmaceutical preparations acting on the skin, for human use	28346* 28349*	Analgesics, including narcotics Other pharmaceutical preparations
28347	Vitamin, nutrient and hematinic preparations, for human use	28345 28349*	Vitamins for human use Other pharmaceutical preparations
28348	Pharmaceutical preparations affecting parasitic and infective diseases, for human use	28342 28349*	Antibiotic preparations for human use Other pharmaceutical preparations
28349	Pharmaceutical preparations for veterinary use	28341	Pharmaceutical preparations for veterinary use
28511	Exterior oil-type trade sales paint products	28511	Paints, varnishes, and enamels - trade sales products
28512	Exterior water-type trade sales paint products, including tinting bases		
28513	Interior oil-type trade sales paint products		
28514	Interior water-type trade sales paint products, including tinting bases		
28515	Trade sales lacquers	28512	Industrial product finishes and special coatings
28516	Industrial product finishes, except lacquers		
28517	Industrial lacquers		
28518	Putty, caulking compounds and allied products	28520	Putty, caulking compounds and allied products
28519	Miscellaneous paint products	28514	Miscellaneous paint products
28790	Agricultural pesticides and other agricultural chemicals	28730 28790	Agricultural pesticides, herbicidal preparations, and similar agricultural chemicals Agricultural chemicals, n.e.c.
28921	Industrial explosives	28920	Explosives
28922	Explosives produced in government-owned, contractor-operated plants		
28992	Fatty acids	28940	Fatty acids
30791	Unsupported plastics film, sheets, rods, tubes, from purchased resins	30793*	Molded plastics products, n.e.c.
		30794	Unsupported vinyl and polyethylene film and sheeting made from purchased resins
		30799*	Fabricated plastics products, n.e.c.
30792	Foamed plastics products	30796	Expanded or foamed plastics
30793	Laminated plastics sheets, rods, tubes	30797	High pressure laminated plastics sheets
		30798	Laminated plastics sheets, rods, tubes, other than high pressure
30794	Packaging and shipping containers, plastics	30793*	Molded plastics products, n.e.c.
		30799*	Fabricated plastics products, n.e.c.
30795	Industrial plastics products	30793*	Molded plastics products, n.e.c.
		30799*	Fabricated plastics products, n.e.c.

\* Represents part.



## Comparability of Product Classes

### Part 1. 1963 Census of Manufactures as Related to 1958 Census of Manufactures--Con.

1963		1958 equivalent	
Product class code	Product class description	Product class code	Product class description
30796	Construction plastics products	30792*	Plastic pipe, hose, tubing, and fittings
		30793*	Molded plastics products, n.e.c.
		30795	Unsupported plastics floor and wall covering
		30799*	Fabricated plastics products, n.e.c.
30797	Plastics dinnerware, tableware, and kitchenware	30791*	Plastics dinnerware and housewares, except sheet goods products
		30799*	Fabricated plastics products, n.e.c.
30798	Consumer and commercial plastics products, n.e.c.	30791*	Plastics dinnerware and housewares, except sheet goods
		30792*	Plastic pipe, hose, tubing, and fittings
		30793*	Molded plastics products, n.e.c.
		30799*	Fabricated plastics products, n.e.c.
32722	Precast concrete products	32722	Precast and prestressed concrete products, except concrete pipe
32723	Prestressed concrete products		
32950	Minerals and earths, ground or otherwise treated	32950	Minerals and earths, ground or otherwise treated
		32961*	Mineral wool for structural insulation
		32962*	Mineral wool for industrial and equipment insulation
33347	Aluminum ingot made in primary aluminum industry	33341	Primary aluminum-base alloys (pig, ingot, shot, etc.)
33348	Aluminum extrusion billet made in primary aluminum industry		
33417	Aluminum ingot made by secondary smelters		
33418	Aluminum extrusion billet made by secondary smelters	33342	Primary unalloyed aluminum
		33411	Secondary aluminum base alloys (ingot, shot, etc.)
33527	Aluminum ingot made in aluminum rolling mills		
33528	Aluminum extrusion billet made in aluminum rolling mills	33520 <sup>1</sup>	Aluminum-base alloys made in aluminum rolling mills
33573	Nonferrous metal wire, except insulated (excluding aluminum and copper)	33573	Nonferrous metal wire, except insulated, but including woven wire products (other than aluminum and copper)
33575	Nonferrous wire cloth and other woven wire products made in nonferrous wire drawing plants		
34432	Fabricated steel plate, including stacks and weldments	34434	Gas cylinders and other boiler shop products
34434	Gas cylinders		
34435	Metal tanks complete at factory (standard line, pressure)	34435	Metal tanks complete at factory (standard line, pressure and nonpressure) and metal septic tanks
34437	Metal tanks complete at factory (standard line nonpressure)		
34438	Metal tanks and vessels, custom fabricated at the factory	34436	Metal tanks and vessels, custom fabricated at the factory
34439	Metal tanks and vessels, custom fabricated and field erected		
34460	Ornamental and structural metal work	34491	Ornamental and structural metal work
34522	Special industrial fasteners	34522	Special industrial fasteners, other than standard types
34523	Headed products (produced by cold and hot heading) other than industrial fasteners		
34814	Ferrous wire cloth and other woven ferrous wire products, from purchased wire	34817	Wire cloth and other woven wire products, not produced by wire drawers
34815	Nonferrous wire cloth and other woven nonferrous wire products		

\*Represents part.

<sup>1</sup>Did not exist as a product class in 1958. This code was utilized especially to accommodate the products indicated.

## Comparability of Product Classes

### Part 1. 1963 Census of Manufactures as Related to 1958 Census of Manufactures--Con.

1963		1958 equivalent	
Product class code	Product class description	Product class code	Product class description
35323	Mining machinery and equipment (other than underground equipment and crushing, pulverizing, and screening plants, stationary)	35323	Mining machinery and equipment (other than underground equipment and crushing, pulverizing, and screening plants, stationary)
35324	Parts and attachments for mining machinery and equipment		
35811	Automatic vending machines (complete units)	35811 35812	Automatic merchandising machines, refrigerated
35812	Coin-operated mechanisms and parts for automatic vending machines		Automatic merchandising machines, except refrigerated
35893	Commercial and industrial vacuum cleaners, including parts and attachments	35840	Commercial and industrial vacuum cleaners, including parts and attachments
36421	Residential type electric fixtures (except portable)	36421	Residential type electric fixtures
36427	Residential type electric fixtures (portable)		
36621	Radio and television commercial communication equipment	36621	Commercial, industrial, and military electronic communication equipment, except broadcast equipment and home-type intercommunication equipment
36627	Space satellite-borne communication systems (complete package)		
36624	Electronic navigational aids (except missile-borne and space vehicle-borne equipment)	36624	Electronic navigational aids
36628	Missile borne and space vehicle borne navigation and guidance systems and equipment		
36740	Solid state semiconductor devices	36791	Solid state semiconductor devices
37221	Aircraft engines for United States military customers	37221	Aircraft engines for United States military customers and all missile engines
37225	Complete missile or space vehicle engines and/or propulsion units		
37223	Research and development on aircraft engines	37223	Aeronautical services on aircraft and missile engines
37226	Receipts for research and development on complete missile or space vehicle engines and/or propulsion units		
37227	All other services on complete missile or space vehicle engines and/or propulsion units		
37224	Aircraft engine parts and accessories	37224	Aircraft engine parts (including parts for missile engines)
37228	Missile and space vehicle engine and/or propulsion unit parts and accessories		
38112	Laboratory and scientific instruments	38112	Engineering, laboratory, and scientific instruments (except aircraft flight, nautical, and navigational instruments and automatic pilots)
38113	Survey and drafting instruments and laboratory furniture		
38311	Optical and analytical instruments and lenses	38310	Optical instruments and lenses
38312	Sighting and fire control equipment made from lenses, prisms, etc. produced in same plant		



## Comparability of Product Classes

### Part 2. 1958 Census of Manufactures as Related to 1963 Census of Manufactures

1958		1963 equivalent	
Product class code	Product class description	Product class code	Product class description
19210	Artillery ammunition over 30 mm (or over 1.18 inches)	19291	Ammunition except for small arms, n.e.c.
19220	Receipts for ammunition loading and assembly, over 30 mm (or over 1.18 inches)	19292	Receipts for ammunition loading and assembly, over 30 mm (or over 1.18 inches)
19253	Research and development on guided missiles (complete)	19253	Research and development on guided missiles and space vehicles
		19255	All other services on complete missiles and space vehicles
19290	Ammunition, n.e.c.	19293	Ammunition, n.e.c.
20220	Cheese, except cottage cheese	20221	Natural cheese, except cottage cheese
20252	Process cheese (from purchased cheese)	20222	Process cheese and related products
20340	Dried and dehydrated fruits and vegetables and soup mix	20341	Dried and dehydrated fruits and vegetables and freeze dried products
		20342	Soup mixes
20950	Animal and marine oil mill products, including foots	20943	Animal and marine oil mill products, including foots
20995	Roasted coffee	20951	Roasted coffee, whole bean or ground
		20952	Concentrated coffee
22512	Women's full-fashioned hosiery shipped in the greige	22514	Women's full-fashioned hosiery shipped in the greige
22521	Women's finished seamless hosiery, except anklets	22513	Finished seamless hosiery, full-length and knee-length (women's)
22524	Seamless hosiery shipped in the greige	22515	Women's seamless full-length and knee-length hosiery shipped in the greige
		22524	Seamless hosiery shipped in the greige (except women's)
26493	Sanitary tissue health products	26472	Sanitary tissue health products
26494	Sanitary napkins and tampons	26471	Sanitary napkins and tampons
26613	Hard pressed wood fiber board	24996	Hard pressed wood fiber board
28211	Cellulose plastics products, except from scrap	28211*	Unsupported plastics film, sheets, rods, tubes, from resins made in same establishment
		28213*	Thermoplastic resins, except resins for protective coatings
		28215*	Adhesives made from plastics and resin materials produced in same establishment
		28219*	Plastics and resin materials, n.e.c.
28213	Synthetic resins, except resins for protective coatings	28211*	Unsupported plastics film, sheets, rods, tubes, from resins made in same establishment
		28213*	Thermoplastic resins, except resins for protective coatings
		28214*	Thermosetting resins, except resins for protective coatings
		28215*	Adhesives made from plastics and resin materials produced in same establishment
		28219*	Plastics and resin materials, n.e.c.
28214	Vinyl and polyethylene unsupported film and sheeting, made from resins manufactured in same establishment	28211*	Unsupported plastics film, sheets, rods, tubes, from resins made in same establishment

\*Represents part.

## Comparability of Product Classes

### Part 2. 1958 Census of Manufactures as Related to 1963 Census of Manufactures--Con

1958		1963 equivalent	
Product class code	Product class description	Product class code	Product class description
28215	Plastics and resin materials, n.e.c.	28214*	Thermosetting resins, except resins for protective coatings
		28215*	Adhesives made from plastics and resin materials produced in same establishment
		28216	Synthetic resins for protective coatings
		28217	Custom compounding of purchased resins
		28219*	Plastics and resin materials, n.e.c.
28331	Medicinal and botanical drugs, uncompounded, for human use	28331	Synthetic organic medicinal chemicals in bulk
28332	Medicinal drugs for veterinary use	28332	Other medicinal chemicals and botanical products, n.e.c. (in bulk)
28341	Pharmaceutical preparations for veterinary use	28349	Pharmaceutical preparations for veterinary use
28342	Antibiotic preparations for human use	28348*	Pharmaceutical preparations affecting parasitic and infective diseases, for human use
28343	Cough and cold preparations for human use	28344	Pharmaceutical preparations acting on the respiratory system, for human use
28344	Laxatives and stomach and ulcer preparations for human use	28345*	Pharmaceutical preparations acting on the digestive or genito-urinary systems, for human use
28345	Vitamins for human use	28347*	Vitamin, nutrient and hematinic preparations, for human use
28346	Analgesics, including narcotics	28342*	Antibiotic preparations for human use
		28346*	Pharmaceutical preparations acting on the skin, for human use
28347	Tranquilizers, sedatives, and hypnotics	28342*	Pharmaceutical preparations acting on the central nervous system and the sense organs, for human use
		28343*	Pharmaceutical preparations acting on the cardiovascular system, for human use
28348	Hormone preparations	28341*	Pharmaceutical preparations affecting neoplasms, endocrine system and metabolic disease, for human use
28349	Other pharmaceutical preparations	28341*	Pharmaceutical preparations affecting neoplasms, endocrine system and metabolic disease, for human use
		28342*	Pharmaceutical preparations acting on the central nervous system and the sense organs, for human use
		28343*	Pharmaceutical preparations acting on the cardiovascular system, for human use
		28345*	Pharmaceutical preparations acting on the digestive or genito-urinary systems, for human use
		28346*	Pharmaceutical preparations acting on the skin, for human use
		28347*	Vitamin, nutrient and hematinic preparations, for human use
		28348*	Pharmaceutical preparations affecting parasitic and infective diseases, for human use
28511	Paints, varnishes, and enamels—trade sales paint products	28511	Exterior oil-type trade sales paint products
		28512	Exterior water-type trade sales paint products, including tinting bases
		28513	Interior oil-type trade sales paint products
		28514	Interior water-type trade sales paint products, including tinting bases
28512	Industrial product finishes and special coatings	28515	Trade sales lacquers
		28516	Industrial product finishes, except lacquers
		28517	Industrial lacquers
28514	Miscellaneous paint products	28519	Miscellaneous paint products

\*Represents part.



## Comparability of Product Classes

### Part 2. 1958 Census of Manufactures as Related to 1963 Census of Manufactures--Con

1958		1963 equivalent	
Product class code	Product class description	Product class code	Product class description
28520	Putty, caulking compounds and allied products	28518	Putty, caulking compounds and allied products
28730	Agricultural pesticides, herbicidal preparations, and similar agricultural chemicals	28790	Agricultural pesticides and other agricultural chemicals
28790	Agricultural chemicals, n.e.c.		
28920	Explosives	28921	Industrial explosives
		28922	Explosives produced in government-owned, contractor-operated plants
28940	Fatty acids	28992	Fatty acids
30791	Plastics dinnerware and housewares, except sheet goods	30797*	Plastics dinnerware, tableware, and kitchenware
		30798*	Consumer and commercial plastics products, n.e.c.
30792	Plastic pipe, hose, tubing, and fittings	30796*	Construction plastics products
		30798*	Consumer and commercial plastics products, n.e.c.
30793	Molded plastics products, n.e.c.	30791*	Unsupported plastics film, sheets, rods, tubes, from purchased resins
		30794*	Packaging and shipping containers, plastics
		30795*	Industrial plastics products
		30796*	Construction plastics products
		30798*	Consumer and commercial plastics products, n.e.c.
30794	Unsupported vinyl and polyethylene film and sheeting made from purchased resins	30791*	Unsupported plastics film, sheets, rods, tubes, from purchased resins
30795	Unsupported plastics floor and wall coverings	30796*	Construction plastics products
30796	Expanded or foamed plastics	30792	Foamed plastics products
30797	High pressure laminated plastics sheets	30793*	Laminated plastics sheets, rods, tubes
30798	Laminated plastics sheets, rods, tubes, other than high pressure	30793*	Laminated plastics sheets, rods, tubes
30799	Fabricated plastics products, n.e.c.	30791*	Unsupported plastics film, sheets, rods, tubes, from purchased resins
		30794*	Packaging and shipping containers, plastics
		30795*	Industrial plastics products
		30796*	Construction plastics products
		30797*	Plastics dinnerware, tableware and kitchenware
		30798*	Consumer and commercial plastics products, n.e.c.
32722	Precast and prestressed concrete products, except concrete pipe	32722	Precast concrete products
		32723	Prestressed concrete products
32950	Minerals and earths, ground or otherwise treated	32950*	Minerals and earths, ground or otherwise treated
32961	Mineral wool for structural insulation	32950*	Minerals and earths, ground or otherwise treated
		32961	Mineral wool for structural insulation
32962	Mineral wool for industrial and equipment insulation	32950*	Minerals and earths, ground or otherwise treated
		32962	Mineral wool for industrial and equipment insulation
33341	Primary aluminum-base alloys (pig, ingot, shot, etc.)	33347	Aluminum ingot made in primary aluminum industry
33342	Primary unalloyed aluminum	33348	Aluminum extrusion billet made in primary aluminum industry
33411	Secondary aluminum base alloy (ingot, shot, etc.)	33417	Aluminum ingot made by secondary smelters
		33418	Aluminum extrusion billet made by secondary smelters

\*Represents part.

## Comparability of Product Classes

### Part 2. 1958 Census of Manufactures as Related to 1963 Census of Manufactures-Con.

1958		1963 equivalent	
Product class code	Product class description	Product class code	Product class description
33520 <sup>1</sup>	Aluminum-base alloys made in aluminum rolling mills	33527 33528	Aluminum ingot made in aluminum rolling mills Aluminum extrusion billet made in aluminum rolling mills
33573	Nonferrous metal wire, except insulated, but including woven wire products (other than aluminum or copper)	33573 33575	Nonferrous metal wire, except insulated (excluding aluminum and copper) Nonferrous wire cloth and other woven wire products made in nonferrous wire drawing plants
34434	Gas cylinders and other boiler shop products	34432 34434	Fabricated steel plate, including stacks and weldments Gas cylinders
34435	Metal tanks complete at factory (standard line, pressure and nonpressure) and metal septic tanks	34435 34437	Metal tanks complete at factory (standard line, pressure) Metal tanks complete at factory (standard line, nonpressure)
34436	Metal tanks and vessels, custom fabricated at the factory	34438 34439	Metal tanks and vessels, custom fabricated at the factory Metal tanks and vessels, custom fabricated and field erected
34491	Ornamental and structural metal work	34660	Ornamental and structural metal work
34522	Special industrial fasteners, other than standard types	34522 34523	Special industrial fasteners Headed products (produced by cold and hot heading) other than industrial fasteners
34817	Wire cloth and other woven wire products, not produced by wire drawers	34814 34815	Ferrous wire cloth and other woven ferrous wire products, from purchased wire Nonferrous wire cloth and other woven nonferrous wire products
35323	Mining machinery and equipment (other than underground equipment and crushing, pulverizing, and screening plants, stationary)	35323 35324	Mining machinery and equipment (other than underground equipment and crushing, pulverizing, and screening plants, stationary) Parts and attachments for mining machinery and equipment
35811 35812	Automatic merchandising machines, refrigerated Automatic merchandising machines, except refrigerated	35811 35812	Automatic vending machines (complete units) Coin-operated mechanisms and parts for automatic vending machines
35840	Commercial and industrial vacuum cleaners, including parts and attachments	35893	Commercial and industrial vacuum cleaners, including parts and attachments
36421	Residential type electric fixtures	36421 36427	Residential type electric fixtures (except portable) Residential type electric fixtures (portable)
36621	Commercial, industrial, and military electronic communication equipment, except broadcast equipment and home-type intercommunication equipment	36621 36627	Radio and television commercial communication equipment Space satellite-borne communication systems (complete package)
36624	Electronic navigational aids	36624 36628	Electronic navigational aids (except missile-borne and space vehicle-borne equipment) Missile-borne and space vehicle-borne navigation and guidance systems and equipment
36791	Solid-state semiconductor devices	36740	Solid-state semiconductor devices
37221	Aircraft engines for United States military customers and all missile engines	37221 37225	Aircraft engines for United States military customers Complete missile or space vehicle engines and/or propulsion units

\*Represents part.

<sup>1</sup>Did not exist as a product class in 1958. This code was utilized especially to accommodate the products indicated.



## Comparability of Product Classes

### Part 2. 1958 Census of Manufactures as Related to 1963 Census of Manufactures--Con

1958		1963 equivalent	
Product class code	Product class description	Product class code	Product class description
37223	Aeronautical services on aircraft and missile engines	37223	Research and development on aircraft engines
		37226	Receipts for research and development on complete missile or space vehicle engines and/or propulsion units
		37227	All other services on complete missile or space vehicle engines and/or propulsion units
37224	Aircraft engine parts (including parts for missile engines)	37224	Aircraft engine parts and accessories
		37228	Missile and space vehicle engine and/or propulsion units parts and accessories
38112	Engineering, laboratory, and scientific instruments (except aircraft flight, nautical, and navigational instruments and automatic pilots)	38112	Laboratory and scientific instruments
		38113	Survey and drafting instruments and laboratory furniture
38310	Optical instruments and lenses	38311	Optical and analytical instruments and lenses
		38312	Sighting and fire control equipment made from lenses, prisms, etc. produced in same plant

# Appendix I

## ALPHABETIC INDEX OF MANUFACTURED PRODUCTS

This index is designed to assist in locating statistics on manufactured products as published in table 6A, "Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958," in the respective industry chapters of the 1963 Census of Manufactures volumes. The product code or codes and the page or pages in the industry chapters where statistics will be found are shown for each of the products or groups of products. The index covers the almost 6,000 coded products as reported in the 1963 Census of Manufactures and several thousand products covered by the Bureau of the Census Current Industrial Reports series of commodity surveys for 1963, which are also included in table 6A. Typically, the products alphabetized in this index are of a broad nature; more detail by size, material components, end use, etc., will be found in

table 6A itself. Occasionally, the same product or group of products will appear under more than one industry; page numbers so indicate. To assist in locating statistics for particular products, cross references or alternate ways of describing products are included in this index.

Product codes are based on the 1957 revised edition of the **Standard Industrial Classification Manual** (SIC), as amended, issued by the Bureau of the Budget. Bureau of the Census expansion of the 4-digit industry coding of the SIC to 5-digit product classes and 7-digit products, as published in table 6A, is used as the basis for this alphabetic index.

Assorted product information is contained in tables other than 6A but no references to such other tables are shown here. For example, summary product information at the industry level may be found in table 5A and at the product class level in table 5B. Product class information may also be found in tables 6B to 6D and in table 8. Occasionally, detailed product information may be contained in tables other than 6A, typically in the table 6 series.



# Alphabetic Index of Manufactured Products

Product	Code	Page	Product	Code	Page
Abrasives.....	3291117-498	32E-18, 19	Ammonia:		
Account books, other than sales books..	2782111	27C-15	Anhydrous, Aqua.....	2819131-33	28A-23
Accounting machines.....	3571201	35F-12	Coke-oven byproducts.....	3312141	33A-22
Acetate yarn.....	2823111-27	28B-14	Household.....	2842371	28D-14
Acetic acid, natural, hardwood distil-			Ammonium chloride.....	2819141-43	28A-24
lation.....	2861261	28E-11	Ammunition.....	19291--	19A-14
Acetylene welding and cutting apparatus	3548321, 31	35C-25		19292--	
Acids:				19293--	
Fatty.....	2899211-91	28G-16	Ammunition boxes and chests, metal....	3499059	34E-29
Inorganic.....	2819411-87	28A-25	Amusement machines, coin-operated....	3999212, 98	39D-24
Acrylic yarn.....	2824245	28B-15	Amusement park equipment.....	3599096	35G-26
ACTH, pharmaceutical preparations.....	2834125	28C-9	Analgesics.....	2834221-29,	28C-10,
Acyclic chemicals, miscellaneous.....	2818211	28A-23		2834631-39	28C-12
Adding machines.....	3571221-24	35F-12	Anesthetics.....	2834281, 85	28C-10
Address books.....	2782155	27C-15	Animal feeds, prepared.....	2042101-435	20D-17
Adhesives.....	2891141-75,	28G-15	Anklets.....	2252333-39	22B-24
	79		Anti-freeze.....	2899326-37	28G-17
Adhesives, synthetic resin (from resins			Anti-infective agents.....	2834811-98	28C-13
produced in same establishment).....	2821511-98	28B-13	Antibiotics.....	2834821-41	28C-13
Adobe brick.....	3259298	32B-18	Antibiotics, bulk.....	2833110	28C-9
Advertising signs and displays.....	3993111-311	39D-24	Anticoagulants, pharmaceutical		
Advertising specialties.....	3993311	39D-24	preparations.....	2834311	28C-10
Aggregate.....	3295011, 13	32E-20	Anticonvulsants, except phenobarbital.	2834241	28C-10
Air-conditioning ducts, sheet-metal....	3444334, 44	34C-23	Antiseptics.....	2834871, 75	28C-13
Air-conditioning equipment, heat			Appliance wire and cord.....	3357613-29,	36E-16,
transfer equipment.....	35851--	35G-19-21		3699613-29	17
Air purification equipment.....	3564231-55	35E-21	Appointment books.....	2782135	27C-15
Aircraft:			Aprons, smocks, hooovers, women's,		
Complete or value of work done on			misses' and juniors'.....	2339211, 21	23B-25
aircraft.....	3721110-912	37B-16	Aprons, waterproof.....	2385098	23D-29
Engines and engine parts.....	3722110, 210,	37B-16	Archery equipment.....	3949291	39B-17
	3722321-33		Architectural, vitreous (porcelain)		
Engine instruments.....	3821110	38A-25	parts, inc., store fronts, etc.....	3461141	34D-21
Hardware.....	3429131	34A-18	Arctics and gaiters (rubber).....	3021041-45	30A-16
Parts and auxiliary equipment, n.e.c.	372913-97,	37B-17	Argon.....	2813415	28A-21
	3729313, 15		Armatures.....	3694611, 21	36E-16
Propellers and parts.....	3723010-51	37B-17	Aromatics.....	2911588	29A-17
Albums and scrap books.....	2782131	27C-15	Artists' materials.....	3952211	39C-18
Alcohol:			Artificial limbs.....	3842135	38A-26
Ethyl.....	2818511-21	28A-23	Asbestos:		
Rubbing.....	2834637	28C-12	Brake linings.....	3292211-55	32E-19
Ale.....	2082019, 41,	20C-17	Gaskets.....	3293211	32E-19
	63		Insulations.....	3293331-51	32E-20
Alfalfa meal.....	2042431, 35	20D-17	Millboard.....	3292798	32E-19
Alkaline detergents.....	2841111-27	28D-12	Packing.....	3293313	32E-20
Allergenic extracts (biological			Pipe, conduits, and ducts.....	3292771	32E-19
products).....	2831111	28C-9	Products.....	3292211-798	32E-19
Alloy steel, open die press forging....	3312963,	33A-24	Siding and roofing shingles.....	3292411, 51	32E-19
	3391942		Textiles.....	3292711-31	32E-19
Aluminum:			Wallboard.....	3292741, 51	32E-19
Castings.....	3361011-61	33D-34	Ash cans, stamped metal.....	3461861, 69	34D-21
Compounds.....	2819611-71	28A-26	Asphalt.....	2911911, 51	29A-17
Extrusion billet.....	33348--	33C-20,	Felts and coatings.....	2952111-398	29A-19
	33528--	21	Floor tile.....	3292511	32E-19
	33418--	33D-27	Roof cement, solid.....	2952211	29A-19
Foil, plain.....	3352351	33D-27	Roofing and siding.....	2952311-98	29A-19
Ingot.....	33347--	33C-20,	Asphalt and tar paving mixtures		
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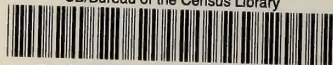


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